AOSIS

Becoming a Teacher

Research on the work-integrated learning of student teachers

Edited by
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Chapter 4

Work-integrated learning and teaching schools: The University of Johannesburg teaching school experience

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■ Abstract

In this chapter, we report on a study that employed a generic qualitative research design to explore how learning *in* and *from* practice, in a curriculum designed to achieve congruence between coursework and fieldwork, relates to student teachers' learning at other schools they attend for WIL. When the University of Johannesburg (UJ), Faculty of Education established a 'teaching school' (TS) in 2010, the staff had no existing model based on which to plan. We worked from the idea that student teachers' practicum in the TS could work in tandem with their WIL at other schools, in order to promote learning *in* and *from* practice, *for* practice. A shared vision of the kind of teacher we wished to produce was key, both within the programme itself and in terms of how coursework and practical experience/fieldwork were brought together. The central organising principle of child study not only brought cohesion to the programme but was also dependent on strong partnerships with expert teachers in the two settings who could operate as good mentors. Although such a vision is achievable at a TS, we found that building a relationship of equivalence demands a great deal of commitment and the willingness to compromise by both parties. This kind of relationship building was not possible at the WIL schools. However, we were motivated by the opportunity to combine practice in both TS and WIL schools for enabling student teachers to learn *in* and *from* practice at the TS to provide a solid foundation for learning during WIL at other schools. The data point to considerable congruence between student teachers learning in the TS and in coursework, but student teachers learning at WIL are more often a source of tension. We reasoned that if they have a vision of what good teaching is about from their experience at the TS, it would provide them with a benchmark of what to aspire for when placed in schools where this was absent.

Keywords: Teaching schools; Work-integrated learning; Theory; Practice; Mentor teacher; School–university partnership.

■ Introduction and background

There have been numerous calls from policy makers and researchers for coherence between coursework and fieldwork in teacher education (Darling-Hammond et al. 2017; DBE & DHET 2011). The so-called theory–practice divide is a long-standing dilemma in teacher education but little is known about '*how* programmes in different countries accomplish this or address this substantial problem of learning to teach' (Hammerness & Klette 2015:5). The literature, worldwide, suggests that one of the ways to better prepare student teachers for the teaching profession is to strengthen the practicum component of teacher education programmes (Darling-Hammond 2014; Feiman-Nemser 2001; Furlong et al. 2008).

In responding to these criticisms, some countries make use of special types of schools to strengthen the integration of coursework and fieldwork. For example, in the United States of America (USA), many institutions involved in teacher education have joined forces with local school districts to create Professional Development Schools (PDSs) aimed at connecting the clinical curriculum and the didactic curriculum to provide quality education for pre-service teachers (Craig 2002; Neapolitan & Levine 2011). In the Netherlands, some universities place student teachers in specific schools called training schools or *opleidingsscholen*, described as having additional resources to support the coaching of student teachers (Hammerness, Van Tartwijk & Snoek 2012). In Finland, practice teaching in teacher education takes place in specially designated teacher training schools where student teachers observe and teach lessons (Kansanen 2003, 2014; Sahlberg 2012) under the guidance of supervising teachers who use guided reflection to transform practical knowledge into professional knowledge (Lavonen 2016).

In South Africa, the Integrated Strategic Planning Framework for Teacher Education and Development, which guides the collective undertakings of the Department of Basic Education

(DBE), the DHET and Teacher Education Institutions (TEI) to address teacher education (Green, Adendorff, & Mathebula 2014), proposed the establishment of Professional Practice Schools and TSs to strengthen the practicum component of teacher education programmes (DBE & DHET 2011:17). Although TSs did not exist at the time of this proposal, the Faculty of Education at the University of Johannesburg, in partnership with the Gauteng Department of Education, founded a public school in Soweto in 2010 to serve as a teacher education site at its Soweto campus (Gravett, Petersen & Petker 2014). The UJ school was conceptualised as a combination of the laboratory school idea and the teacher training school idea drawn from the Finnish model (Gravett et al. 2014). The objectives of establishing the school were, inter alia, to serve the educational needs of young children; to 'develop a practice learning site for the education of teachers of young children'; and to enable 'longitudinal child development studies and research on children's performance in the school curriculum' (Gravett et al. 2014:108). The central organising principle of child study is foregrounded in both coursework and at the school with student teachers observing learners closely over the period of their degree, paying close attention to how they learn and develop, what they struggle with and what influences their learning.

In addition to learning *in* and *from* practice at the UJ TS, student teachers also complete WIL at other schools. In this chapter, using a generic qualitative research design, we explore how these two forms of practical learning in a curriculum designed to achieve congruence between coursework and fieldwork relate to student teachers learning at other schools they attend for WIL.

■ Design principles of a practicum model

In creating a practicum model to bring together coursework with two forms of practical learning in the teacher education programme, we explored the teacher education literature to

extract design principles. One of the key principles was that there should be a shared vision about what good teaching and learning entail that is infused in both coursework and field experiences (Zeichner & Conchlin 2008:272). We understood that this would be possible to manage at the TS but not necessarily so at the other schools where student teachers completed their practicum. There are many scholars who agree that placement schools for WIL need to echo the vision of the teacher education programme (Banks et al. 2005; Darling-Hammond & Baratz-Snowden 2005). For example, Banks et al. (2005:273) argued that pre-service teachers need to be placed with expert teachers who are 'knowledgeable, skillful, and committed to all their students', as it is very difficult to imagine what good teaching looks like when placed in schools with teachers who demonstrate the opposite of what is learnt in coursework. Although experience in the classroom is important, student teachers need the guidance of a mentor teacher who can demonstrate how to organise 'productive learning activities and respond to both predictable and unexpected problems that arise in classrooms' (LePage et al. 2005:353). Selecting schools that echo the programme vision so that student teachers gain valuable learning experiences of how the school functions, what schools do when they are committed to teaching all students and the need for continuous self-reflection for improvement (Banks et al. 2005) is therefore important.

The second design principle is coherence between what student teachers learn in coursework and fieldwork. Here, the lessons outlined by Darling-Hammond (2006b) from an in-depth study of seven successful programmes in the USA informed our work. The seven programmes studied student teachers acquiring an in-depth knowledge and understanding of children, how they think and reason and how they develop over time cognitively, socially, emotionally, morally and physically (Darling-Hammond 2006b). By synchronising coursework with classroom observations, student teachers gain valuable first-hand knowledge of how children learn by observing individual learners in and outside the

classroom, paying attention to recording specific details such as the learners' strengths, needs, interests and experiences (Darling-Hammond 2006b). A second element was that the coursework addressing the knowledge base needed to teach was closely linked to other courses within the programme and with fieldwork (Darling-Hammond 2006a), thus ensuring that student teachers' experiences of learning to teach in both coursework and fieldwork take place seamlessly. We were keenly aware that this would also present a challenge for us; our relationship with the TS enabled us to have some influence over these aspects but this was not guaranteed at the other schools.

■ Coordinating learning experiences in coursework and the practicum

The intention when designing the primary school teacher education programme on the Soweto campus was for student teachers' practicum in the TS to work in tandem with their WIL at other schools. As per the Minimum Requirements for Teacher Education Qualifications (MRTEQ), practical learning, which comprises learning *from* and *in* practice, is identified as an important condition for the development of tacit knowledge (DoE 2015:10). Learning from practice includes the study of practice, using discursive resources to analyse different practices across a variety of contexts, drawing from case studies, video records, lesson observations, etc., in order to theorise practice and form a basis for learning in practice. Learning in practice involves teaching in authentic and simulated classroom environments.

The specific aims of the practicum to integrate learning *in* and *from* practice at the UJ TS and WIL schools were derived from the literature, with the expert input of teacher educators who were involved in designing the practicum. In the design process, the team worked on clarifying the purpose of the practicum in the teacher education programme and how the envisaged

practicum in the TS and WIL schools should be different, but complementary. The team was clear that they were not aiming to simply train teachers in the technical mastery of skills and general pedagogical principles (Stephens, Egil Tønnessen & Kyriacou 2004) – the practicum would thus need to reflect the multifaceted and multidimensional role of the teacher graduates they envisaged. We were intent on producing teachers who are critical thinking practitioners – the practicum needed to help student teachers engage in critical reflections about their own learning, and the development of pedagogic content knowledge and of children's learning (Stephens et al. 2004). The practicum model thus needed to reflect its aims.

The team's initial thinking and planning were bolstered at a later stage by Dewey's two models of practice experiences, namely, the apprenticeship model and the laboratory model. In the apprenticeship model, student teachers are afforded the opportunity to practice with the skills and techniques of instruction (Dewey 1904), more like training but with little attention to the 'whys and hows of teaching' and dealing 'with the unexpected' in classroom teaching (Ulvik & Smith 2011:521). On the other hand, in the laboratory environment (Dewey 1904), critical inquiry and experimentation are emphasised so that mentoring involves developing 'habits of personal inquiry and reflection about teaching and the context in which it occurs' (Krull 2005:145). Another conceptual frame we drew on is Collins, Brown and Holum's (1991) model of cognitive apprenticeship versus a traditional apprenticeship in the practice environment. We use the Collins et al. (1991) stages of modelling, scaffolding, fading and coaching to contrast the learning process in the two models, making the argument that the stages are dependent upon the expert showing:

> [*T*]he apprentice how to do a task, watch(es)ing as the apprentice practices portions of the task, and then turn(s)ing over more and more responsibility until the apprentice is proficient enough to accomplish the task. (p. 2)

We problematise learning to teach in the traditional apprenticeship model by arguing that the thinking of both the expert and student is not made visible and can be linked to training in discrete skills or competencies. However, in the cognitive apprenticeship model, there is a strong emphasis on making thinking visible, situating tasks in authentic contexts and articulating common elements in diverse situations or tasks to enable transfer of learning to new situations (Collins et al. 1991:3). We are of the view that the cognitive apprenticeship model together with Dewey's ideas about the laboratory model of practice would be useful in promoting learning *in* and *from* practice in the TS and allow us to plan optimally *for* practice in their WIL at other schools (WIL schools). We now explain how we saw these ideas operationalised in our teacher education programme.

The role of the UJ TS is conceptualised as a teaching laboratory (DBE & DHET 2011) for student teachers in which they can move seamlessly between the university classroom and the school setting, observe children's learning and development closely for a period of four years, practice micro-teaching in a peer group and see the enactment of their university coursework. This enables student teachers to experience congruence between coursework and fieldwork (Gravett, Petersen & Ramsaroop 2019). From the onset, the teacher education programme was designed to enable student teachers to develop first-hand knowledge of how children learn by observing individual learners in and outside the classroom, paying attention to recording specific details such as the learners' strengths, needs, interests and experiences. In this laboratory setting, they also have additional experiential learning opportunities such as service learning (Gravett et al. 2014).

At WIL schools, student teachers in first, second and third year spend shorter periods of time learning from practice (e.g. observing and reflecting on lessons taught by others), as well as learning in practice (e.g. preparing, teaching and reflecting on

lessons presented by themselves) (DHET 2015) before moving into these schools for an extended period in the last year of their programme. We reason that the TS provides a solid foundation for student teachers to learn *in* and *from* practice in a setting where we have reasonable influence on the factors that impact their learning (e.g. teacher pedagogy and school culture) before they move into the WIL settings.

Figure 4.1 provides a holistic picture of the design features of the practicum to promote learning *in* and *from* practice, *for* practice.

These design features inform student teachers' learning *in* and *from* practice in multiple ways. Firstly, learning from practice in coursework requires student teachers to take an inquiry-oriented
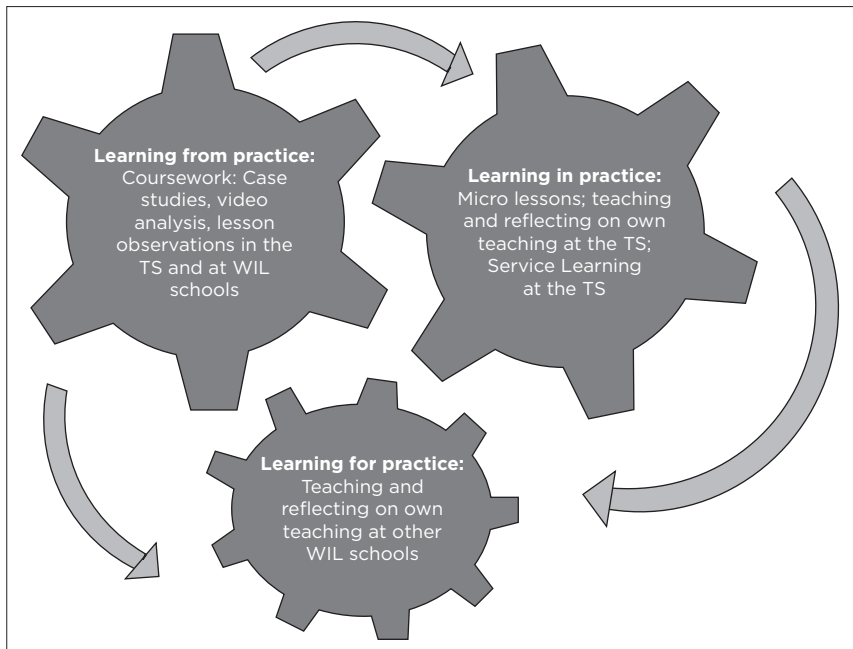

FIGURE 4.1: Making sense of the spaces of practical learning in becoming a teacher.

approach to analysing and reflecting on aspects such as lesson planning, the development of pedagogic content knowledge, assessment, use of case studies, video analysis or artefacts from classrooms. At the same time, student teachers learn from practice at the TS, observing how aspects explored in coursework is unfolding in the classroom. Practically, this means that student teachers' timetables are arranged such that they spend a few hours observing classes/learners (and sometimes teaching) in the morning at the TS and return to coursework for the rest of the day, thus moving between fieldwork and coursework on the same day. The observations at the TS are also carefully structured to align with the central organising framework of how children learn and develop. Thus, in the first year of study, every student teacher is coupled with a learner in Grade R from the school. As the student teachers progress into year 2, 3 and 4 of their study, they continue to observe the same child (alone and in interactions with other children) as they move from Grade R to Grade 3 in the foundation phase, thus observing their growth and development over the four years. A similar process is followed in the Intermediate phase, with student teachers in this phase following the same learner from Grade 4 in their first year of study to Grade 7 in their fourth year of study. The central organising framework of child study is addressed primarily in sequentially arranged and developed content in one of the student teachers' majors (Education Studies). This focus is then picked up in the methodology modules, where there is a focus on bringing together the content and pedagogy to teach in ways that will address learners' diverse needs and abilities in the classroom. The idea is that student teachers' learning at the school and in coursework is made real and relevant, an important consideration given that universities are blamed for not preparing student teachers adequately for the realities of the classroom (Gordon 2007; Grossman, Hammerness & McDonald 2009). This design feature relies heavily on two components. One is the mentor teachers' ability to link student teachers' observations in their classrooms to what they were learning in coursework. Another is

teacher educators' willingness to respond appropriately to student teachers' questions during lectures about what they observed in the classroom. It is therefore imperative that mentor teachers at the school and teacher educators share a common understanding of what the programme entails, and the kind of teacher that the programme envisages producing. It is also dependent on strong partnerships with teachers in the TS who are able to operate as good mentors.

The TS also provides an ideal environment for student teachers to learn in practice by experimenting with different pedagogies in a safe space, under the guidance of teacher educators and mentor teachers. In this regard, student teachers' pedagogical learning through experimentation is carefully scaffolded and supported through a methodical process of lesson planning, teaching and reflection, with differentiation for each year of study.

On the other hand, for WIL at other schools, from years 2 to 4, student teachers are expected to observe and teach lessons, under the guidance of the mentor teacher at a selection of schools. Teaching involvement is developmental, starting from limited teaching in year 2 to teaching a series of lessons in year 4, combined with reflective tasks aimed at bringing together coursework learning and practice. The collaboration with these schools is not as close as the partnership the university has with the TS owing to the large number of schools involved, some of which are in rural areas and/or in other parts of the country.

The combination of the close teacher education and school relationship in the TS and the more removed relationship between the teacher education programme and the WIL schools enables us to leverage the learning from the one (TS) in preparation for the situation in the other (WIL). We are of the view that student teachers learning at the TS, that is, 'extensive, carefully supervised clinical work … tightly linked to coursework', will develop teachers who will be better prepared to teach (Darling-Hammond, Chung & Frelow 2002:293) and will enable transfer of their learnings

into different contexts that they will find themselves in. In our view, this enables us to prepare student teachers optimally 'for the schools that are' and 'the schools that should be' (Horn & Campbell 2015:151).

■ Research methodology

This research can be described as a generic qualitative study (Merriam 2009:23) as we were interested in understanding how student teachers' learning *in* and *from* practice, in a curriculum designed to achieve congruence between coursework and fieldwork, relates to their learning at other schools they attend for WIL. Mentoring is of course key to their learnings, which leads us to the second aim, of exploring what student teachers are learning through mentoring and how they make sense of their mentoring experiences at the TS and at other WIL schools. Drawing on Merriam (2009), the study was interested in how student teachers interpret their experiences and what meaning they attribute to their experiences. Purposive sampling was used as the study included data from all final-year student teachers in the 2018 (*n* = 143) and 2019 (*n* = 175) cohorts. Data were collected using open-ended questionnaires and student reflections, following the UJ Faculty of Education guidelines for ethics approval.

Data were analysed using a process of inductive thematic analysis (Henning, Van Rensburg & Smit 2004). Codes were assigned to different segments or units of meaning, and these were then combined to form first provisional coding categories, before being reduced into finalised categories. For example, the following statements, 'I learnt to study the nature of learners and the classrooms they are in' and 'understanding leaner behaviour, needs, strengths' were grouped under the umbrella category of learning about children. Once this process was complete, the researchers could begin identifying recurring themes that cut across the categories (Henning et al. 2004).

The researchers worked towards validity and dependability through the triangulation of data (Patton 1999). We looked for consistencies as well as different perspectives from the data generated in the two methods of data collection, as well as between the two cohorts of student teachers.

◼ Findings

From the data analysis process, three findings were elicited. The first theme contrasts the type of student teacher learning based on the quality of mentoring in the TS versus the WIL school placement. In this respect, it seems that in the WIL school, mentoring emphasises the development of a technical mastery approach while TS mentoring promotes the development of an inquiry approach. The second theme explores how learning spaces work together to develop inquiry-oriented student teachers with the teacher education curriculum serving as the coalescing element for learning *in* and *from* practice. The last theme addresses how careful consideration of the key elements that are able to bring together a coordinated curriculum with the integration of practice episodes in a TS can prepare student teachers for the world of reality they will face in schools.

◼ Learning from mentoring that straddles technical mastery and inquiry

The data point to student teachers having very different experiences of mentoring at the TS and at WIL schools. At the TS, mentoring seems to align broadly with Collins et al.'s (1991) cognitive apprenticeship model of mentoring while at WIL schools, the emphasis appears to be on the mastery of technical skills, similar to that of the traditional apprenticeship model.

At the TS, mentor teachers do place emphasis on both the *how* and the *why* of practice. They are also linking what student

teachers are learning in coursework to their classroom observations to make learning real and relevant. This pertains to teachers making their thinking visible to student teachers on their own practice, as highlighted in the following student teacher reflections:

'The teachers were so keen to share their teaching strategies and the reasons why they think those strategies work for them but also for the learners'. (Student teacher, undisclosed gender, date unknown)

'The teacher provides feedback on why he taught the lesson in that way'. (Student teacher, undisclosed gender, date unknown)

'The teacher connects the classroom practice with what we are taught in the lectures'. (Student teacher, undisclosed gender, date unknown)

At WIL, student teachers are learning by observing mentor teachers demonstrating how to teach in the classroom, similar to the traditional apprenticeship model, as described by Collins et al. (1991). However, the *why* of teachers practice is silent in the data as the teachers' thinking is not visible to the student teachers. Much of the learning takes place by watching the teacher 'at work' (Collins et al. 1991:2), as captured by the following student teachers' experiences:

'I gained a lot from observing her teaching and how to work with learners who are regarded as "slow learners"'. (Student teacher, undisclosed gender, date unknown)

'Her methodologies are the best. She has lovely techniques of approaching a lesson'. (Student teacher, undisclosed gender, date unknown)

'She uses the learners' strengths and weaknesses to construct lessons and often goes back to content that learners have not mastered yet'. (Student teacher, undisclosed gender, date unknown)

In the mentoring of student teachers' planning and teaching in the TS, the *how* and *why* of practice is evident in student teacher responses, best captured in the following excerpts:

'They (teachers) always critique the lessons presented and give valid reasons. They go step by step. They start by commenting on the

introduction, then the body lastly the conclusion, then talk about the teaching aids. They do not just say the lesson was nice. They pay attention when you present a lesson'. (Student teacher, undisclosed gender, date unknown)

'She taught me that I should always reflect on my lessons so that I can change where I went wrong and also use learners' assessment feedback in order to direct lessons'. (Student teacher, undisclosed gender, date unknown)

'The mentor teacher was able to provide feedback before and after a lesson was presented, she would have reasons for why she said something and how we can make it better'. (Student teacher, undisclosed gender, date unknown)

From these examples, student teachers describe their mentor teachers at the TS as supportive collaborators who challenge them to reflect. We regard these as important learnings, as mentor teachers explain the *whys and hows* of teaching and prepare student teachers to deal with the unexpected (Ulvik & Smith 2011). The nature of the feedback also emphasises inquiry into what it means to be a learner and a teacher in the classroom (Stephens et al. 2004).

In contrast, at the WIL schools, the focus on student teachers' planning and teaching seems to be largely leaning towards a traditional apprenticeship model, with emphasis on the 'how' of teaching:

'He gives me good tips'. (Student teacher, undisclosed gender, date unknown)

'She usually reflected on my lessons after school and discussed on what I can improve on'. (Student teacher, undisclosed gender, date unknown)

'The teacher helped with providing resources'. (Student teacher, undisclosed gender, date unknown)

'She suggests strategies that will make the teaching process much easier'. (Student teacher, undisclosed gender, date unknown)

'She always gives complements to me after the presentation of my lessons'. (Student teacher, undisclosed gender, date unknown)

'She guided me in terms of what resources and teaching strategies I should use when teaching content'. (Student teacher, undisclosed gender, date unknown)

The emphasis seems to be on knowing how, or 'techne' (Eisner 2002). The quality of feedback provided from WIL teacher mentors resonates with what Clarke, Triggs and Nielsen (2014:175) described as 'narrow, particularistic, and technical', as student teachers are not encouraged to rethink and reflect. We are of the view that these mentor teachers' conversations with student teachers need to move beyond simply reiterating what was observed in the lesson, suggestions to improve visible performance (Edwards & Protheroe 2003) or providing general encouragement (Edwards & Ogden 1998). To be valuable for deep student teacher learning, mentoring conversations need to assist them to understand the teachers' tacit knowledge and to interpret classrooms with the focus on learners and their learning (Edwards & Protheroe 2003:230).

Nevertheless, student teachers did learn from observation of the WIL mentor teacher at work. However, there were a good number of student teachers who either had little or no engagement with the WIL mentor teacher or were paired with mentor teachers who did not model what it means to be a professional. Thus, there was great variance in the quality of mentoring provided at WIL schools, with student teacher placement becoming 'luck-of-the-draw'. We find ample evidence of this in the data:

'To them (WIL mentor teacher) I was merely a babysitter to fill in for absent teachers. I had to be in different classes from day-to-day filling in for an absent teacher. This dampened my spirits because the people I had to learn from were unavailable to teach me'. (Student teacher, undisclosed gender, date unknown)

'Of the 10 mentor teachers I had in the 4 years at WIL, only three were great teachers whose passion for the profession showed in their work ethic from the planning to the delivery of lessons. The other teachers were the opposite. They often came late to class, taught straight from the textbook and hardly moved around in the class'. (Student teacher, undisclosed gender, date unknown)

Unfortunately, ensuring quality placements in all WIL schools in South Africa is problematic (see Gravett & Jiyane 2019; Robinson 2015). According to Spaull (2013), at least 75% of schools in the public system are described as dysfunctional, characterised by high levels of teacher absenteeism and late coming (Mashaba & Maile 2019) and as a result, most teachers do not cover the prescribed curriculum content and learners are not learning. This assertion is backed up by South Africa's poor performance in international benchmarking tests such as Progress in International Reading Literacy Study (PIRLS) over the periods 2006–2016 (Howie et al. 2017) and Southern Africa Consortium for Monitoring Educational Quality (SAQMEC) 2007 data (Taylor & Taylor 2013).

■ Learning spaces working together to develop inquiry-oriented student teachers

The data suggest that student teacher learning in coursework and at the TS prepared them to some extent to teach in the 'real world'. The overarching framework of child study that was used to bring coherence to the programme not only assisted in student teachers having a deeper understanding of children at the TS but they were able to apply their learnings in the different schools they were placed in for WIL. There were various examples in support of this view, best exemplified by the following reflections from student teachers, which demonstrate that they made sense of their learnings from coursework, at the TS and in WIL:

> In coursework: 'Education studies is one of the modules that stood out for me. Their theories made it possible for me to understand learners better. What I learnt is that to understand learners, I need to look beyond the surface and look deeper into the core of how they develop'. (Student teacher, undisclosed gender, date unknown)

> In coursework: 'I learnt to study the nature of learners and the classrooms they are in. The assignments in coursework helped us to

pay attention to learners, their learning styles, how they behave with other learners'. (Student teacher, undisclosed gender, date unknown)

In the TS: 'Observations assisted me in understanding the theory part that we learn in lectures into practice. We were assigned a child from first-year that we had to observe. That alone helped me in understanding learner behaviour, needs, strengths and weaknesses, and also understanding the stages that children develop under'. (Student teacher, undisclosed gender, date unknown)

At WIL: 'In her classroom, you could see that she knew her learners well enough to identify who struggled with particular skills'. (Student teacher, undisclosed gender, date unknown)

At WIL: 'Learners differed across schools according to their social and cultural backgrounds. Each year I found myself having to adapt accordingly, so that I could interact with learners appropriately. The schools were in different settings but the common things I learnt (from coursework) that all schools had learners with different personalities, different backgrounds'. (Student teacher, undisclosed gender, date unknown)

Other parts of the teacher education programme, also centred around child study, such as the methods, courses and the practicum set-up in the TS, are also described by student teachers as useful, and in the case of the practicum serve as a basis of learning that can be taken into other contexts:

'Teaching methodology expanded my knowledge by teaching me how to plan my lessons and reflect on my lessons after I have taught to become better. It expanded my way of thinking that teaching is simply chalk and talk .... to asking effective questions to help me in understanding my learner's prior knowledge, to do my research before teaching my topic, to use suitable teaching aids that enhance learning and to be a reflective practitioner'. (Student teacher, undisclosed gender, date unknown)

'In my practicals at FUJS ... the class teacher ... I liked how she saw her learners as active participants in their learning. ....I adopted some of her teaching styles when I went out to WIL schools. In my teaching, the learners were very inquisitive and asked questions. This is where I learnt how important it is to be a researcher and know the content that you are teaching'. (Student teacher, undisclosed gender, date unknown)

'The classroom management skills that we were taught came in handy especially in the schools I was doing my practicum as there were more than 50 learners in class, which they all demanded my time and attention. It is not easy to do that in an overcrowded classroom but because we were taught how to handle an overcrowded classroom, it wasn't as difficult'. (Student teacher, undisclosed gender, date unknown)

From this, we surmise that learning in the TS, coursework and at other schools could work in tandem to promote learning *in* and *from* practice, *for* practice. The combined experiences enable student teachers to abstract knowledge so that they are able to 'acquire knowledge in a dual form, both tied to the contexts of its uses and independent of any particular context' (Collins et al. 1991:16). We are in agreement with Collins et al. (1991) that when learnings acquired from a specific context are unravelled, student teachers will be able to transfer their learnings to new problems and to different settings that they may encounter in the future.

The data also point to student teachers developing a reflective inquiry stance into their own teaching when coursework learning is integrated with the practicum at both the TS and at WIL schools. For example, the following excerpt is from a student teacher reflecting on her teaching and on what learners were learning by asking the following critical questions:

'What lesson are they going home [*sic*] after I have taught them? If I was in their position, would I have appreciated to be taught that way by myself? I can engage more with learners in my reflection so that I can tell where I went wrong. Being critical when doing lessons, not teach to cover the curriculum but give learners a lesson they probably will not forget'. (Student teacher, undisclosed gender, date unknown)

This level of reflective thoughtfulness 'encourages resistance to the implementation of ineffective schooling practices, and hold the promise of nurturing the intellectual development and professional growth of teacher candidates' (Schulz 2005:164). The combined experiences from coursework, learning at the TS and at WIL also enabled student teachers to think more deeply

about the kind of teacher they aspire to be and the kind of schools they would hope to teach in, best exemplified by the following reflections on their learning at WIL schools:

> 'During the 4 years of my study, I was able to go to four different WIL schools. All schools do not function in the same way therefore we got to experience different schools. This gave us an opportunity to see where and in what schools we want to see ourselves in'. (Student teacher, undisclosed gender, date unknown)

> 'The observations prepared me for work. What kind of a teacher would I be if I had to arrive to work late? What message am I sending to the learners?' (Student teacher, undisclosed gender, date unknown)

■ Preparation for the world of reality

The data show that student teachers describe their first encounters at the TS as one of *amazement* as the far majority of them have never experienced being in a school that functions effectively and efficiently. Student teachers also report how it changed their preconceived notions of what teaching was about, as exemplified by the following reflections:

> 'Being at the TS changed my view of the teaching profession. I was seeing good dedicated teachers, with proper planning of lessons and resources. That made me realise that teaching was not easy. It was a surprise to me to see the difference between my teachers (from school) and the teachers at UJ TS'. (Student teacher, undisclosed gender, date unknown)

> 'The UJ TS changed my perception of what it is to be a 21st century teacher. The TS was introduced as part of the coursework in which we were expected to observe the teachers and learners. I was amazed with the engagement with learners during learning, changed my whole perception of primary school, where we were treated as empty vessels'. (Student teacher, undisclosed gender, date unknown)

> 'Seeing a Grade 4 teacher at the TS making connections to what was learned in the earlier grade, seeing a school as organised as the TS, was overwhelming because I was new to such and often wondered

what my childhood would have been like had I had this experience'. (Student teacher, undisclosed gender, date unknown)

We are very aware that student teachers would have internalised a range of teaching and learning experiences, acquired from their 'apprentice of observation' (Lortie 1975) through the number of years spent at schools as a learner. These forms of prior knowledge and preconceptions about teaching can positively or negatively shape the way student teachers think about teaching (Darling-Hammond 2006a; Feiman-Nemser 2008; Stofflett & Stoddart 1994; Wubbels 1992).

We are also wary of the difficulties in correcting misconceptions about teaching derived from one's apprentice of observation if student teachers continue to go out to schools for WIL which are similar to schools they experienced as learners. As reported by one student teacher who reflected on the positive experience of being at the functioning TS by indicating that *'UJ was selling us dreams'* (Student teacher, undisclosed gender, date unknown) in contrast with his experiences of WIL which he indicated took him into the reality of teaching in the public school system: 'WIL is a way of getting us out of that comfort zone*'* (Student teacher, undisclosed gender, date unknown)*.* To us, these are important learnings as we are of the view that we should be preparing our student teachers for the schools that are and for the schools that should be (Gravett et al. 2019). We reason that if they have a vision of what good teaching is about from their experiences at the TS, that this would provide them with some kind of baseline or benchmark of what to aspire to when placed in schools where this is absent.

Moreover, there were many student teachers who reported that their first experiences in schools which were not functioning or where they were not supported, left them disillusioned about whether or not to continue with teaching as a profession. Rots et al. (2007) make the argument that a student's first teaching

experience impacts on the retention rates of novice teachers entering the profession.

■ Discussion

The data point to considerable congruence between student teachers' learning in the TS and in coursework. However, student teachers' experiences at other schools they go to for WIL is more often a source of tension and conflict, leaving some student teachers feeling disillusioned with teaching as a profession. We are of the view that we should be preparing student teachers for the schools that are and the schools that should be.

There are scholars who are of the view that the practicum should take place alongside mentor teachers who serve as good role models (Beck & Kosnik 2002). Others argue that it is better to place student teachers in schools with poor conditions for practice (Haberman 1995), as student teachers will learn how to teach under challenging conditions (Cherry 2015). They argue that teachers should learn to teach in schools that provide challenging conditions for practice. In our view, student teachers should be learning to teach in schools that are innovative and supportive of student teacher learning, and while we are in agreement with Dewey (1938) who forwarded the view that experience in schools is important, we do not agree that all experience is equally educative. Here Dewey's (1938) notes on experience and education are worth mentioning:

> The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative. Experience and education cannot be directly equated to each other. For some experiences are miseducative. Any experience is miseducative that has the effect of arresting or distorting the growth of further experience. (p. 25)

We too are concerned that teaching in schools that are overwhelmingly challenging reinforces student teachers' 'apprentice of observation' (Lortie 1975) acquired from attending

12 years of poor schooling, but we are also concerned that it may reinforce a pedagogy of oppression or an 'apprenticeship of oppression' (Gallego 2001:314). In an apprenticeship of oppression, student teachers' focus is likely to be on survival rather than on their own learning and development. In addition, student teachers' learning experiences in WIL could be promoting a pedagogy of oppression because some mentor teachers are not willing to think out of the box, to critically reflect on their own practices, or are simply not good role models to student teachers. Placed with such teachers for extended periods may deprive student teachers from being challenged to think more deeply about what they encounter, and about their own practices, which may serve to reinforce their existing beliefs and prejudices about what good teaching entails. The data confirm such misconceptions when student teachers enter the programme. They for instance say that 'teaching is easy' and 'I would not have to work very hard as a teacher as I was teaching younger children' (Student teacher, undisclosed gender, date unknown). If WIL is limited to learning skillful techniques, student teachers may be under the impression that teaching is actually easy, involving the execution of habitual practices that require very little thinking (Tabachnick, Popkewitz & Zeichner 1979–1980). The danger here is that student teachers may be initiated into thinking that teaching is an uncomplicated, technical task requiring little effort, and that their initial training has equipped them adequately for their duties as teachers (Lanier & Little 1986).

Another consequence of the 'apprenticeship of oppression' from poor practice experiences in schools is that student teachers enter a relationship of power. If the relationships between student teachers and mentors are not collaborative and/or encouraging of reflective, critical thinking, a student teacher may find herself/ himself as a subordinate in what is meant to be a consultative learning space with an expert mentor. This places the student teacher in a very difficult position to ask questions about the why that underlies practice, or to challenge or disagree with the

mentor teacher. We agree with Binnaford and Hanson (1995) that conflict and difference is a threat and has the power to silence student teachers. Alternatively, the student may also view the teacher as an 'ideal' to be emulated, and begin to unquestioningly model the mentor teacher (Root 1994), even if the teacher's practices do not exemplify best practice.

Our experience of working with the model of a TS in combination with a range of schools for WIL, and the data we have generated with two cohorts of student teachers, leads us to make the claim that if teacher education programmes are able to build a firm foundation of practice that actually develops the habits and minds of a critical thinking teacher in an environment like the TS, this may mitigate against poor practical teaching experiences in WIL schools. Furthermore, if a firm foundation is created for student teachers very early in their teacher education programme in order to cultivate critically reflexive thinking, it may go a long way towards building teacher agency in WIL environments where they are unlikely to encounter it. To us, this is the real value of a laboratory environment. When student teachers then enter an apprenticeship environment, they have already acquired a base of competencies that will enable them to develop as change agents. We argue that if student teachers have a strong base of a cognitive apprenticeship in the TS, they may actually be more insistent on being part of a cognitive apprenticeship for mentoring in other contexts wherein they can question a mentor teacher's tacit knowledge, assumptions about teaching and learning, and reflect more deeply on their own development as professionals.

In this way, cultivating critically reflexive teaching can effect changes in the dynamics within schools and can indirectly address social justice in the school system. Ultimately, as Petersen (2007) has argued, it can move student teachers from the position of operating mainly as consumers of knowledge and instead establish them as pedagogical thinkers, knowledge

consumers and knowledge producers in conjunction with others (Dewey 1924; Krzywacki, Lavonen & Juuti 2015; Moore 1990) and prompt student teachers to become 'active agents in constructing new kinds of knowledge and relationships' (Hayes & Cuban 1997:78).

A key question that emerged during this work is how do we leverage student teachers' learnings from congruency on the one hand at the TS and conflict experienced at WIL schools? Ward, Nolen and Horn's (2011) concept of 'productive friction' could prove useful in understanding how the learnings from coursework and at the TS could relate to student teacher learning in WIL. These scholars define productive friction in student teaching as 'dissonance experienced by teacher candidates when two or more social worlds conflict, which initiates positive change in their use of high leverage practices to improve student learning and understanding' (Ward et al. 2011:2). When different worlds collide, boundaries are created, which can be a source of learning (Wenger 2000) if student teachers are able to reconcile the norms and values from the different worlds (Ward et al 2011) to reflect on their own and others' practices (Ebby 2000). Similarly, Engeström (2001:137) also explained that contradictions can be used as opportunities and 'sources of change and development'. In this way, productive friction and innovation can be developed around common problems (Ward et al. 2011:2).

■ Conclusion

In this chapter, we explored how student teachers' learning *in* and *from* practice in a curriculum designed to achieve congruence between coursework and fieldwork relates to their learning at other schools they attend for WIL. We conclude that it is possible to develop inquiry-oriented student teachers when there is congruence between student teacher learning in coursework and

at the TS. The central organising principle of child study not only brought cohesion to the programme but was also dependent on strong partnerships with expert teachers in the two settings who could operate as good mentors. Such congruence relied on a shared vision between teachers at the TS and teacher educators teaching in the programme. Although such a vision at a TS is achievable, we found that building this kind of relationship was not possible at the WIL schools. From the findings, we are of the view that WIL should be introduced after a firm foundation of practice is developed at the TS, which actually develops the habits and minds of a critical thinking teacher. We believe that student teachers learning *from* and *in* practice in a coherent curriculum that purposefully integrates coursework with a TS will develop skills such as critical thinking, communication, creativity and collaboration, important in preparing student teachers for the schools that are, the schools that should be, as well as schools of the future (Gravett 2019).