

Student teacher learning during practicum experience

Authors: Louise Starkey and Peter Rawlins

Louise Starkey

Victoria University of Wellington

Donald Street

Karori

Wellington

New Zealand

louise.starkey@vuw.ac.nz

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Louise Starkey and Peter Rawlins

Abstract

This article explores the focus of student teacher learning during practicum experience in two initial teacher education programmes. Data was gathered through case studies and a cohort questionnaire. Three professional learning themes were identified: managing the learning environment, pedagogy, and being a teacher. Initially the student teachers learnt about the context in which they would teach. During practicum the professional learning reported was focussed on strategies to manage the learning environment, the process of teaching and what it is like to be a teacher. Ultimately, some of the student teachers reported learning about teaching in ways that cater for diverse learning needs of their students. These findings can inform the focus of learning expectations for students on practicum experience within initial teacher education programmes.

Keywords: student teachers; practicum; teacher professional learning, initial teacher education.

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Background

Learning to teach is a complex process (Darling-Hammond, Hammerness, Grossman, Rust, & Shulman, 2005). Initial teacher education in New Zealand includes studying teaching, learning and what it means to be a teacher within an academic context interspersed with school or centre-based practicum experiences. Student teachers experience the complexity of teaching during practica under the guidance of one or more associate teachers and are mentored by teacher educators from the university through online discussions and observation of teaching. The practicum experience varies in length from one day a week to 7 weeks depending on the programme.

The study of teachers on practicum has evolved over time as research and policy priorities and theoretical perspectives change. Research of student teachers on practicum prior to about 1986 was underpinned by a behaviourist perspective, examining changes to overt behaviours and attitudes while participants learnt to teach (Broeckmans, 1986). In the later 1980s and 1990s studies focused on teachers' thoughts, knowledge and beliefs (Berliner, 1987) as researchers explored how student teachers' attitudes, beliefs and values changed (or not) over time (Cochran-Smith & Demers, 2008). At this time both research and initial teacher education programmes focused professional learning on the articulation of images of teaching (eg. H. Borko, Lalik, & Tomchin, 1987; Calderhead & Robson, 1991; Tabachnick & Zeichner, 1983) and the linking of academic knowledge and practicum experience through the use of reflection (e.g. Grimmert, 1988; Zeichner, 1987). Underpinning this era of research was a constructivist view of learning.

Much remains to be learnt about how individuals learn to think, know, feel, and act like teachers (Feiman-Nemser, 2008). A way of gaining this understanding is through examining student teacher learning through a current educational research perspective. The focus on student teacher learning aligns with contemporary sociocultural theories of learning which recognise the situated nature and interpersonal dimension of knowledge, and

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the impact of the social environment in promoting and directing learning (Sfard and Prusak, 2005). From a sociocultural perspective, understanding what and when student teachers learn during practicum within the context of initial teacher education could help teacher educators, mentors and programme designers to prepare teachers to meet the needs of twenty-first century learners.

This article reports on research that explored what and when a sample of student teachers from New Zealand learnt while on practicum experience from a sociocultural perspective.

Research Method

This research explored student teachers' professional learning during their practicum in New Zealand through a mixed methodology and applying inductive logic underpinned by a complexity/sociocultural theoretical orientation. All students enrolled in a preservice one year Graduate Diploma of Teaching programme at two universities were invited to participate during or at the conclusion of one of their practica between March - September 2010 (school year and university year aligns with the calendar year). Data was collected through two sources; an online survey of student teachers (N=164) and case studies (N=11). The case studies included five secondary, four primary and two early childhood student teachers who completed a weekly reflection of their key learning moments followed by open-ended interview at the conclusion of the practicum. Table 1. below outlines the case study participants and the data collected from each participant.

Reference used	Sector	Length of teaching practicum	Data gathered: Student teacher interview (I), Weekly feedback and number of weeks completed (WF=x)
S1	Secondary	6 weeks	WF=6, I,
S2	Secondary	7 weeks	WF=7, I
S3	Secondary	7 weeks	WF=7, I,
S4	Secondary	6 weeks	WF=6, I
S5	Secondary	6 weeks	WF=6, I
P1	Primary	7 weeks	WF=6, I
P2	Primary	7 weeks	WF=7, I

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P3	Primary	3 weeks	I
P4	Primary	3 weeks	I
E1	Early Childhood	7 weeks	WF=1, I
E2	Early Childhood	7 weeks	WF=1

Table 1. Case study participants

Each week a researcher asked each case study participant what they had learned while on practicum experience. This weekly feedback created 45 units of analysis (not all students responded every week) and the data included 11 open-ended, semi-structured interviews of student teachers at the conclusion of the practicum. The online survey included three questions about the personal learning focus student teachers had at the start, in the middle and at the end of their practicum experience. These were open questions to which responses varied from two words to a paragraph. The data was analysed to identify themes using generic inductive qualitative analysis procedures (Hood, 2007). This approach provided a holistic representation of participant experiences from the data to broaden the findings beyond the individual contexts and identifying themes and variations in reported professional learning across the time on practicum that may not be evident by examining the data within individual case study contexts. The participants volunteered to take part in the research which limited the sample being studied. A further limitation of the findings was that not all students responded every week, so it may be that the responses somehow align with when students were not feeling pressured. The research gained approval through the Human Ethics Committees of the two universities.

Findings

The professional learning reported by the student teachers across the practicum was found to align to three themes: managing the learning environment, pedagogy, and being a teacher. The themes were identified using generic inductive analysis across each of the data sources and each statement within a unit of analysis and from the surveys was attributable to one of the three themes or on task compliance. Task compliance was not included as a theme as it did not align with the learning focus research

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protocol. The responses were analysed further to examine how each theme varied over time.

The findings outlined overleaf are illustrated with quotes from participants.

Managing the learning environment

The survey results indicated that at the start of a practicum the dominant focus of student teachers was to understand the context in which they would be teaching. This was predominantly through observation, but included interacting with students, understanding policies, procedures and routines, and establishing relationships with students and associate teachers.

The culture of the learning context was an important professional learning focus in the first week of practicum. The case study student teachers reported how they were focused on learning about the context in which they were going to teach. An early childhood student teacher noted that:

‘in the first week, I [focussed on] knowing the place, knowing each child, and knowing each staff. The guidance I received from the staff in the centre was mainly to do with the routines; like how things work in the centre, what behaviour management they use, how they act towards the children’ (E1,I).

Through the survey 127 students out of 162 reported focusing on learning about the context in which they were going to be teaching at the start of the practicum (Table 2). Learning about the context changed over the practicum; from learning through observing and discussing what the associate teacher(s) did, to learning through personally implementing strategies to maintain an effective learning environment.

Learning environment	Start	Middle	End
Learning about context	127	7	7
Learning individual strategies to manage the learning environment (including 'behaviour management').	0	46	22
Selecting strategies for the context and individual students	0	1	4

Table 2. Learning about the learning environment

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By the middle of the practicum student teachers were developing their knowledge of practice using techniques to engage students in learning, this was particularly important for participants teaching multiple classes in the secondary school context who reported learning:

- *'[to make] transitions short and avoid any student down time'(S4, W2.)*
- *'[that] teacher expectations and interactions with students directly set the tone of the classroom' (S5, W2).*
- *.that the students responded positively when I swiftly contained low level behavioural issues and clearly outlined my expectations' (S3, W4).*

'In a classroom mutual respect for students can enhance understanding of the material and context as students will feel comfortable sharing information' (S2, W5.)

Managing student behaviour was the focus in the middle of the practicum. As the practicum experience progressed, the case study participants in the primary and secondary schools appeared to be refining strategies they were using to focus students on learning, and as the understanding of the classroom context increased, professional learning included learning how to select and apply multiple strategies appropriate for the context, the individual young person (or group) and the situation. This idea was summarised at the end of the practicum:

'Managing the learning environment changes from trying different strategies, to evaluating the context of when to use these to having a 'toolkit' of strategies and selecting when to use a spade and when to use a fork' (S5, I).

At the start of the practicum the data included many references to the importance of getting to know students including learning names and establishing a relationship with them. The importance of teachers developing a learning relationship with their students tends to be a key component in initial teacher education programmes at the time of this research. This type of professional learning moment may reflect that the student teacher has

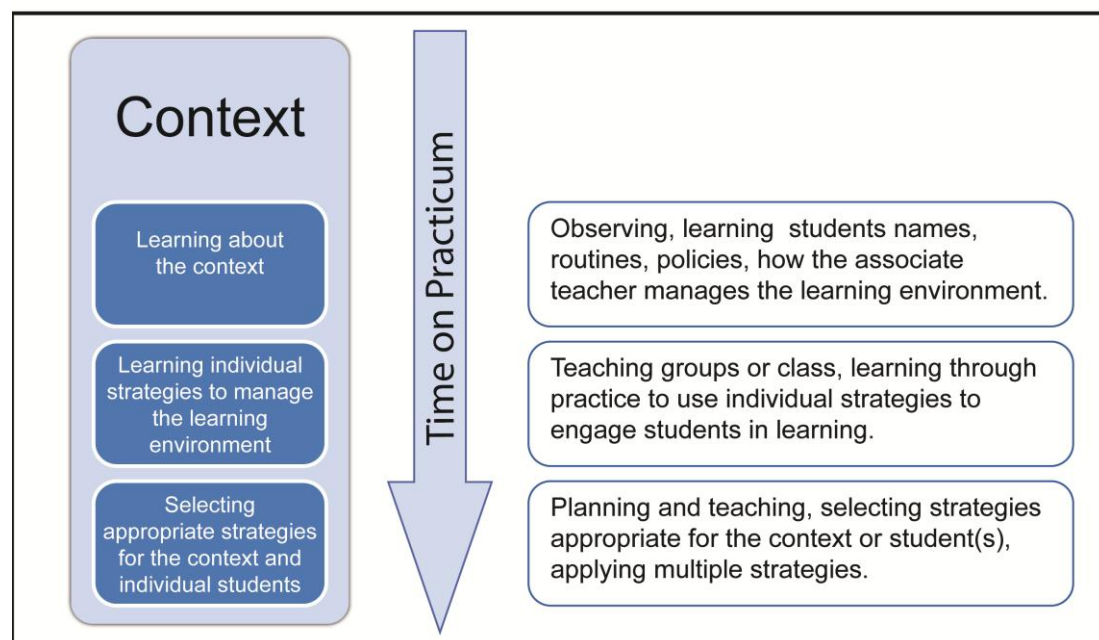
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personally understood the learning relationship within the context of their own professional practice.

Within the theme of managing the learning environment, student teachers initially focussed on learning about the context, learning student names, about the students and the ways that the teacher(s) interacted, policies, procedures and routines. As the student teachers began to teach they focussed on individual strategies to manage the learning environment then using multiple strategies appropriate for the context. This is summarised in Figure 1.

Figure 1: Learning about managing the learning environment.



Pedagogy

The second theme of student teacher learning on practicum was identified as the process of pedagogical reasoning and action (pedagogy). Pedagogical reasoning and action are the deliberate acts of teaching, and included student teachers learning about planning (drawing on knowledge of content, context and pedagogies), teaching, assessing student learning, and evaluating teaching effectiveness (Shulman, 1987). The weekly reflections, end of

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practicum interviews and survey responses included aspects of planning, teaching and evaluating teaching (and loosely appearing in that order across the practicum). The numbers of responses across practicum experiences are included in Table 3.

Pedagogy	Start	Middle	End
Observing how the teacher teaches	27	2	3
Planning, teaching, evaluating.	8	118	73
Considering student learning within the teaching processes	0	7	10

Table 3. Learning about pedagogy

By the second week of practicum all of the case study participants were teaching. The student teachers reported learning about planning and carrying out the teaching process during these initial weeks of teaching. For example: [I learnt to] *'focus on detailed planning and considering all aspects of lessons'* (S3, W2). The planning and delivering content remained a focus: [Later in the practicum I was] *'focus[ed] on planning lessons, delivering resources and really engaging with the students'* (S1, I).

Developing content knowledge was recorded as a focus for a number of secondary student teachers in the online survey as they found they were teaching unfamiliar aspects of the curriculum.

Evaluating different teaching strategies by focussing on student learning was evident in the learning that was reported later in the practicum experience. For example: *'I need to think about student learning when developing resources'* (S1, W6).

The student teachers all learnt through evaluating their teaching practice, with one explaining how she recorded her practice:

'[This week I learnt about] the importance of evidence. I have used it for 3 classes to check understanding and engagement. Having audio recordings and one video to refer back to at a calm moment provided much information about my performance and what was really going on in the classroom. E.g. I

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thought it was noisy during a group activity but the video showed that all students were actually talking about the intended work' (S3, W5).

Gaining a greater understanding of what students know and can do through formative assessment, and being able to use this to inform teaching, was reported in the learning in different ways and at different times across the weeks of practicum experience by some (not all) of the student teachers. The way this was reported reflected the student teachers' emerging understanding of the teaching and learning process. For example: '*[I learnt] how to observe and assess students to identify and share next learning steps with them' (P1, W3).*

Towards the later stages of the practicum some of the student teachers reported focusing on diverse learning needs within the context they were teaching. This recognition that teaching and learning strategies needed to vary according to the context was noted by a case study participant in their fifth week of practicum:

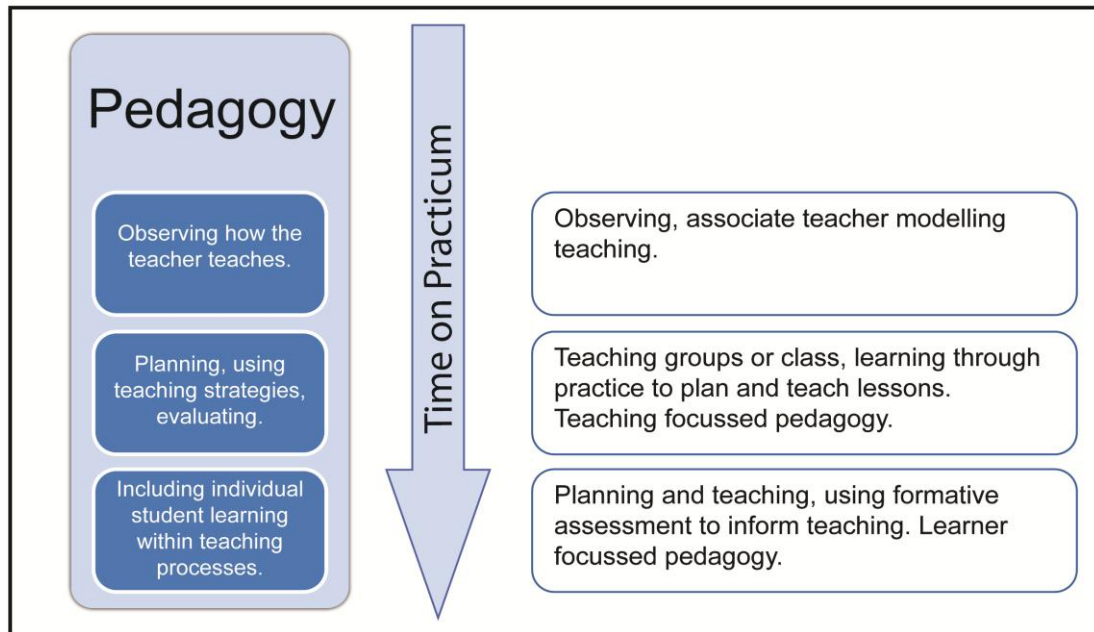
'I can see how I can extend a few children with their thinking as I have gotten [sic] to know them better and there are those within my small groups who I know I may need to review things with a bit more but I can see these things while I am teaching and making notes in my weekly planning which has helped with my next steps process' (P1, W5).

Figure 2. summarises the reported learning within the theme of pedagogical reasoning and action.

Figure 2 Learning about pedagogical reasoning and action

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Being a teacher

Throughout the practicum the student teachers reported learning about the nature and role of the teacher, the teaching process, how they would *be* as teachers (in the gestalt sense), and how, as a teacher, they will align the complexity of schools or early childhood centres with their values, beliefs and emerging understanding of effective teaching practice. This theme was reported strongly within the case studies where weekly reflections on learning were recorded (Table 4).

Being a teacher	Start	Middle	End
Observation of being a teacher	4	0	8
Developing knowledge of being a teacher	4	25	29

Table 4 Learning about being a teacher

The case study participants reported learning about the nature of the teaching profession. For example: *'I learnt about the nature of teachers and teaching- [they are] supportive and generous'* (S2 W1). An early childhood teacher learnt how teachers collaborate:

'I learnt that when teachers work together a valuable source of support is the result and feedback (if negative) does not result in defensiveness' (E1, W1).

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The range of roles a teacher carries out was interpreted by one participant as: *'Teachers are teachers, social workers, mums, dads, friends and nurses, all at once!'* (P2, W5) The same student teacher had the experience of the classroom pet dying requiring her to take on multiple roles to help the students learn through, and cope with, the event.

Some of the professional learning reported was about developing a personal teaching style:

'There is no one size fits all when it comes to teaching. You have to work out what approaches work for your personality and develop that style' (S1, W2).

Through observing different teachers the student teachers learnt about how they would like to be perceived. For example from observing a reliever (supply teacher) teaching a class, a student teacher learnt that it is: *'Better to be strict and friendly than grumpy and lenient'* (S5, W2). Seeing a different teacher working in the same context with the same students gave the teacher some insight into how students react to different teaching styles.

The reported professional learning reflected emerging understanding of being a teacher. For example: *'Teaching can be tiring. I work late into the night and feel exhausted and overwhelmed'* (S1, W5). One comment reflected an understanding of the process of learning to be a teacher: *'Nothing is automatic, I need to think about every aspect of a lesson'* (S5, W2), another student teacher learnt (with some dismay and admiration) that her associate teacher was able to hold pedagogical content knowledge in her head rather than on a written lesson plan.

The context in which the students were learning influenced their sense of being. As a teacher they were developing relationships with their students which can have an emotional impact. A complex aspect of learning to be a teacher is the personal effect that the interactions with students can have on the student teachers, and these were included in the reported learning

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moments within the case studies. The interactions can be rewarding, for example:

'In an introductory lesson on alcohol, drugs and smoking students wanted to contribute and share their narrative learning stories of rules of alcohol at home and their experience of alcohol. I shared my stories (rules when I was growing up) and students responded with their own personal stories. The students' enthusiasm and open approach to helping me to learn is very touching' (S2, W5).

They may also be challenging:

'No matter how much you try to remain objective you do become emotionally involved and when one of your kids is hurting, you hurt too' (P2, W7).

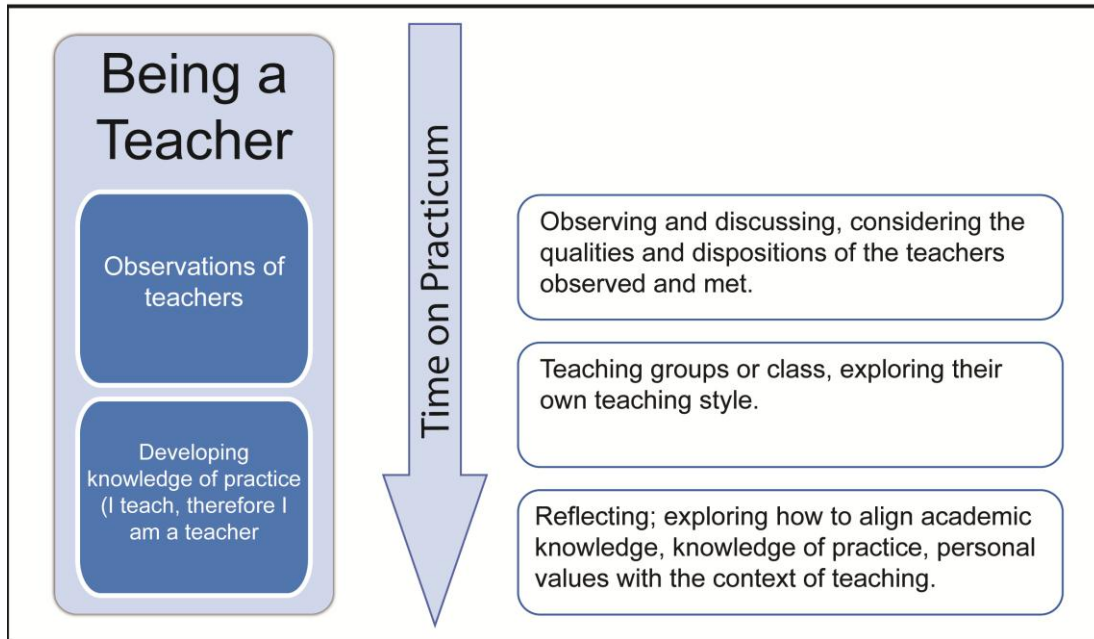
Both these statements were made within the context of something the student teachers had learnt during the week. The emotional response to the developing relationships is an aspect of learning how they will be as a teacher.

Learning about being a teacher had two components: learning about the teaching profession from observing and discussing with teachers, and learning to be a teacher through experiencing teaching (see Figure 3. overleaf).

Figure 3 Learning about teachers and being a teacher.

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Discussion

Learning to teach is ‘an active, constructive process that is heavily influenced by an individual’s existing knowledge and beliefs and is situated in particular contexts’(Borko & Putman, 1996, pp. 674-675). The research had set to explore student teachers’ focus and learning during practicum experience using a complexity/sociocultural theoretical framework.

The first theme, managing the learning environment, was contextual, directly related to being in a school or early childhood setting. Some of the learning was generic about how the sector operates or how students behave in the institutionalised setting, but mostly it was learning about the particular class or setting that the student teacher was placed in and how to build learning relationships with the individual students and cohorts. Learning about the context was the dominant theme in this study.

The second theme, pedagogical reasoning and action was about learning to teach. This included planning, assessment, evaluation of teaching practice and meeting the learning needs of diverse learners. For some of the participants in the research the focus remained on teaching throughout

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practicum with learning moments recording how content was being delivered. For others responding and considering student learning became a lens through which to view their teaching practice.

The third theme, learning about *being* a teacher is a significant element in initial teacher education. Rodgers and Scott (2008) discuss the literature which explores notions of self, identity and being as a teacher and note that students in initial teacher education are learning how to teach from within a cognitive domain and also being a teacher from the affective domain. While few student teachers in the survey reported focusing on this aspect, it was an area recorded within the case study weekly reflections. Student teachers have to act professionally which means stepping up to be in a position of authority with increasing responsibility for student learning. Learning about being a teacher is in the affective domain and involves identity, notions of self and values. Learning about being a teacher can occur through relationships and can be emotional. The responses of the student teachers to their learning within practicum suggest that learning to *be a teacher* in the gestalt sense is an important learning aspect from a complexity/sociocultural perspective and incorporates the concepts of emerging identity.

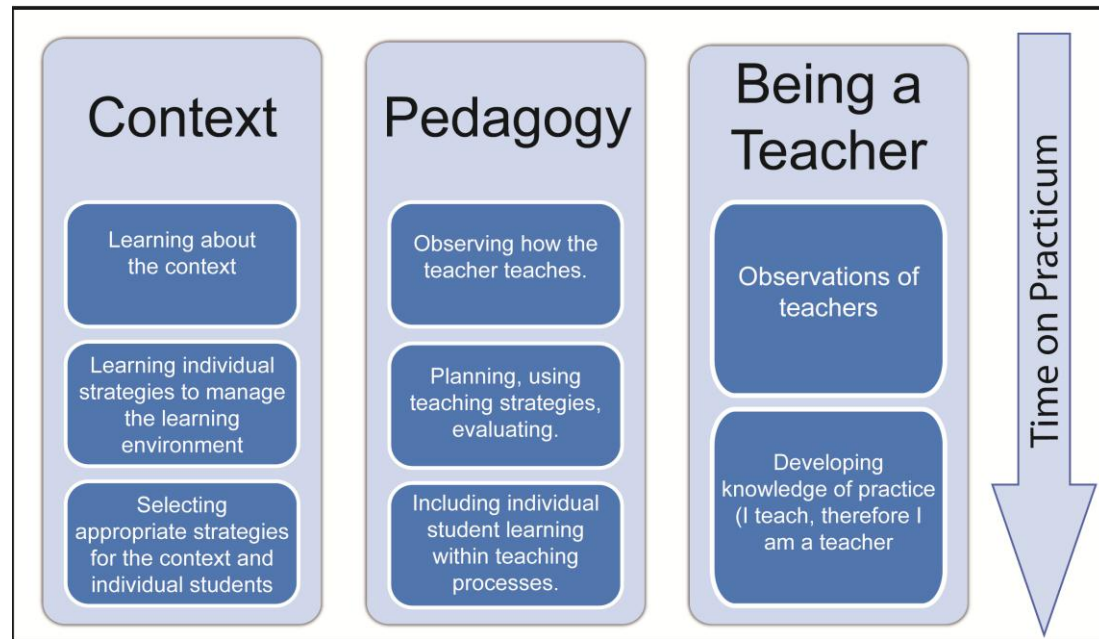
Learning to teach can be examined through a sociocultural perspective. By exploring what a sample of student teachers reported learning and focusing on over a practicum experience, patterns emerged which may be useful when considering how to structure mentoring and feedback for future student teachers to help them develop knowledge of practice within the complexities of teaching. The themes of managing the learning environment (context), pedagogical reasoning and action (pedagogy), and being a teacher are summarised in Figure 4. overleaf. While meaningful learning can be seen as a slow and uncertain process for teachers, as it is for students (Borko, 2004), increased understanding of student teacher learning during practicum by teacher educators and practicum based mentors could inform programme

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design. This study did identify patterns, and similar patterns may be present in different contexts.

Figure 4. Student teacher learning on practicum.



Implications for practica

At the start of a practicum the student teacher is typically observing and trying to understand the complex context in which they have been placed. They reported learning about the context, the pedagogical approaches of the teacher and what teachers are like. Therefore a mentor who shares their knowledge of the context, explains their pedagogical reasoning (why they choose particular content, classroom management and teaching strategies), and shares what their life is like as a teacher (without scaring the student teacher too much), will enrich the learning experience at the start of the practicum.

Once the student teacher began to teach they focused on learning the details of teaching practice, like learning to drive a car, the learner needs to consciously consider and experience each metacognitive process until

minimal conscious thought is required to consider when and how to apply individual strategies. This freed up the teacher to consider the wider complexities of the teaching, being a teacher, and context during the teaching process. At this stage of the practicum the student teacher would benefit from being familiar with a range of strategies they had been exposed to through their teacher education programme prior to the start of their practicum and the rationale behind individual strategies (linked to theories of learning, motivation and behaviour). This research concurs with Darling-Hammond (2010), who called for teaching of specific practices and tools that can be applied within a practicum.

When on practicum direct feedback on the implementation of individual strategies and suggestions of next steps linked to pedagogy or maintaining an effective learning environment will help the student teacher to refine their practice. The importance of scaffolding and mentoring student teacher learning is important if they are to understand and enact complex teaching practices (Darling-Hammond, *et al.*, 2005). Once confident with the individual strategies, student teachers may focus (or be encouraged to consider) how their teaching practice can be extended to further enhance the learning processes of the diverse students that they are teaching.

Conclusion

This research has identified the focus of professional learning during practicum experience for a group of student teachers. This is a useful basis for informing practicum mentoring and refining teacher education programmes to develop student teacher knowledge and skills during initial teacher education. The professional learning of initial teacher education students during practicum may evolve from a focus on surface level behaviours and individual teaching strategies towards an integrated and complex understanding of teaching, learning and being a teacher.

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References

- Berliner, D. C. (1987) 'Ways of thinking about students and classrooms by more and less experienced teachers', in: J. Calderhead (Ed.), *Exploring teachers' thinking*. (London, Cassell), 60-84.
- Borko, H. (2004). 'Professional development and teacher learning: Mapping the terrain', *Educational Researcher*, 33(8), pp.3-15.
- Borko, H., Lalik, R., & Tomchin, E. (1987) 'Student teachers' understanding of successful and unsuccessful teaching' *Teaching and Teacher Education*, 3(2), pp.77-90.
- Borko, H., & Putman, R. T. (1996) 'Learning to teach', in D. Berliner & R. Calfee (Eds.), *Handbook of educational psychology*, (New York, Simon & Shuster Macmillan), pp.673-708.
- Broeckmans, J. (1986) 'Short-term developments in student teachers' lesson planning', *Teaching and Teacher Education*, 2(3), pp.215-228.
- Calderhead, J., & Robson, M. (1991) 'Images of teaching: Student teachers' early conceptions of classroom practice', *Teaching and Teacher Education*, 7(1), pp.1-8.
- Cochran-Smith, M., & Demers, K. E. (2008). 'How do we know what we know?' In M. Cochran-Smith, S. Feiman-Nemser, D. J. McIntyre & K. E. Demers (Eds.), *Handbook of research on teacher education: Enduring questions in changing contexts* (Third ed.). (New York, Routledge and the Association of Teacher Educators), pp.1009-1015.
- Darling-Hammond, L., Hammerness, K., Grossman, P., Rust, F., & Shulman, L. (2005). 'The design of teacher education programs', in L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world*, (San Francisco, Jossey-Bass), 390-441.
- Feiman-Nemser, S. (2008). 'Teacher learning: how do teachers learn to teach?' in M. Cochran-Smith, S. Feiman-Nemser, D. J. McIntyre & K. E. Demers (Eds.), *Handbook of research on teacher education: enduring questions in changing contexts* (Third ed.), (New York, Routledge), pp. 697-705.

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- Grimmett, P., & Erickson, GL (Eds.). (1988). *Reflection in teacher education*, (New York: Teacher College Press).
- Hood, J.C. (2007) 'Orthodoxy vs power: The defining traits of grounded theory', in Bryant A. & Chernaz, K (eds) *The Sage handbook of grounded theory*. (London, Sage) pp.151-164..
- Rodgers, C. R., & Scott, K. H. (2008) 'Developing a professional identity', in M. Cochran-Smith, S. Feiman-Nemser, D. J. McIntyre & K. E. Demers (Eds.), *Handbook of research on teacher education: Enduring questions in changing contexts* (Third ed.), (New York, Routledge and the Association of Teacher Educators), pp.732-755.
- Sfard, A., & Prusak, A. (2005)'Telling identities: In search of an analytic tool for investigating learning as a culturally shaped activity', *Educational Researcher*, 34(4), pp.14-22.
- Shulman, L. S. (1987) 'Knowledge and teaching: Foundations of the new reform', *Harvard Educational Review*, 57(1), pp.1-22.
- Tabachnick, B. R., & Zeichner, K. M. (1983) 'The impact of the student teaching experience on the development of teacher perspectives', *Madison*, (WI: Wisconsin Center for Education Research, University of Wisconsin-Madison).
- Zeichner, K. (1987) 'Teaching student teachers to reflect', *Harvard Educational Review*, 57(1), pp.23-49.

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