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“Talking to Learn”: Focussing Teacher Education on Dialogue as a Core Practice for Teaching and Learning.

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Abstract: Classroom interaction, as a core practice of teaching and learning, remains a ‘taken-for-granted’ and under-examined dimension of teacher education. This paper reports preliminary findings from an empirical investigation of pre-service teacher’s development of skills in classroom interaction as core educational practice. Specifically, the paper presents findings from a faculty-wide initiative involving first year Bachelor of Education students from one rural/regional university in NSW, Australia. The research investigated the impact that a focus on the role of dialogue for learning - both in university subjects and practising in classroom sites - has on 124 first year education pre-service teachers’ interaction practices with students in their professional experience placements. Findings show that if pre-service teachers experience classroom interactive practices as the object of overt focus during their undergraduate studies, understandings about effective pedagogy and teacher development will develop from beyond a ‘taken-for-granted’ dimension of teaching practice.

Introduction

The role of teacher-student talk in classrooms has been the topic of educational research for many decades. Indeed the connections between teacher talk and student’s learning are well documented in the research literature (Alexander, 2001, 2008; Anstey, 1991; Baker, 1991; Barnes, 1976; Bellack, Kliebard, Hyman, & Smith, 1973; Cazden, 2001; Edwards, & Westgate, 1987; Freiberg, & Freebody, 1995; Heap, 1985; Johnston, 2004; MacLure, & French, 1980; Mehan, 1979; Nystrand, 1997; Wells, 1981). Despite this, and given the attention it receives in educational and professional literature, there has been little impact on the interactive practices of teachers (Fisher, 2010) as classroom talk remains the province of the teacher. Classroom talk and developing dialogue in classrooms, as a quality and essential pedagogical practice, remain ‘taken-for-granted’ and an under-examined dimension of pre-service teacher education courses. In fact, it seems that explicit instruction, along with opportunities to ‘practise’ engaging in quality dialogue with students in classrooms, receives little dedicated space across the subjects of pre-service education courses, leading to a tendency for pre-service teachers to enact a default practice in placement classrooms based on replicating known patterns of interaction of those observed and those experienced in their own education (Love, 2009).

In their article ‘Redefining teaching, re-imagining teacher education’ (2009), Grossman, Hammerness and McDonald challenge the field of teacher education to move towards being organised around a core set of practices in which knowledge, skill and
professional identity are developed in the process of learning to practice. Understanding what constitutes the core practices of teaching is the key matter of concern for sustaining and renewing teacher education (Green & Reid, 2004; Reid, 2011). In particular, this article seeks to address this issue by describing an intervention study that aims to make visible for pre-service teachers the taken-for-granted assumptions about the role of talk for learning in classrooms. The research was based on the underlying premise that language is central to learning: it is through language and interactions in classrooms that learning is mediated and accomplished (Baker, 1991). The article therefore contends that efficacy in classroom interaction practices is the core dimension of practice that binds together all other practices, enlivening curriculum, pedagogy, management and discipline as ‘quality talk is the central tool of [a teacher’s] trade. With it they mediate children’s activity and experience, and help them make sense of learning, literacy, life and themselves’ (Johnston, 2004, p. 4).

Although those in education have long understood that quality interaction and dialogue is an integral factor in achieving efficacy and inclusivity for students in classrooms (Edwards-Groves, 2002; Johnston, 2004) and a key expectation in the literature describing effective teaching (see eg What Teachers Should Know and Be Able to Do, National Board for Professional Teaching Standards, 1987; Principles of Effective Learning and Teaching, Department of QLD, 1994; NSW Quality Teaching Guidelines, 2006; National Professional Standards for Teachers, 2011), it is rarely the subject of overt, continuing and in-depth focus in pre-service teaching courses. Indeed, ‘if students are striving after a form of knowledge, which they believe to be ‘out there’, rather than mutually constructed [through talk], and subject to change, they may well undervalue dialogue as a cognitive stepping-stone and fail to use it in practice’ (Fisher, 2010, p. 38).

This article argues that unless we lead pre-service teachers to look deeply beyond the surface or ‘activity’ of classroom teaching and view the interactive practices as the object of overt instructional focus, understandings about effective pedagogy and teacher development will simply remain superficial (Edwards-Groves, 1999). To make this argument, we draw on empirical research investigating the impact that an intervention project entitled ‘Talking to Learn’ which focused on instruction about classroom interaction and dialogic pedagogy, has on the understandings pre-service teachers develop about the role of dialogue for learning as a classroom practice. In a broad sense, the ‘Talking to Learn’ project overtly centred on creating opportunities for pre-service teachers to examine the development of the language of teaching (Edwards & Furlong, 1979; Edwards-Groves, 2002) through a dialogic pedagogy (Churchill, 2011; Eilam & Poyas, 2009) by engaging in classroom observations, practising or rehearsing in classrooms (Ball, 2008) and participating in mentoring conversations (Timperley, 2001). It focused on the role of dialogue for learning at four levels: between teachers and students in classrooms, between classroom students as peers, between pre-service teachers, and between pre-service teachers and teacher mentors (Note that Teachers refers to the classroom teacher; Students refers to the students in classrooms in school settings; Pre-service Teachers refers to the Bachelor of Education student teachers participating in the ‘Talking to Learn’ project; and Teacher Mentors refers to either participants who acted as mentors for pre-service teachers. These may be the classroom teacher or an academic mentor who conducted the mentoring conversations).

The paper presents a detailed description of the first phase of the project examining the effect of the intervention on pre-service teachers’ awareness of the complexity of teaching and its contribution to their ability to (1) interact with students in classrooms (after observing and participating in classroom situations), and (2) base their interpretations on developing theoretical perspectives, namely, to interpret teaching–learning practice as social practice.

**Practice and ‘Learning’ Practice**
In recent years, a new line of enquiry in practice theory offers a new way of conceptualising practice. Among others, Green (2009), Kemmis and Grootenboer (2008) and Schatzki (2002, 2010) have sought to show how practices – like practices of teaching and learning – are held in place by distinctive preconditions which enable and constrain particular kinds of interconnected activities, language and relationships which together constitute a practice of one kind or another. These dimensions of practice, described as practice architectures by Kemmis and Grootenboer (2008), are a way of understanding professional practice which acknowledges that practice is informed and shaped by the social-political (relatings), cultural-discursive (sayings), and material-economic (doings) conditions of practice both from within schools and across the broader educational landscape.

Broadly, these arrangements of practice (relatings, sayings and doings) form the mechanisms for understanding how educational practices take place and are influenced by the social political conditions, the discourse of both education (more broadly) and of school communities (more specifically) and the economic conditions of place and work. Drawing upon this theoretical position, we aim to argue that re-envisioning teacher education practice entails creating opportunities for supporting pre-service teacher’s development of an intricate understanding of classroom interactions - or talking to learn - in relation to the social conditions in which practices are undertaken, and the individual actions, language and relationships of those involved in classroom teaching.

Recently, Kemmis (2012) argued that a ‘site’ (for example, a classroom in a school in its community) is always the existential and ontological given in educational practice. It is the place where things happen – where people meet and engage with one another in practices (p 4). We argue that practising or rehearsing (as described by Ball, 2008), and so learning practice, means participating in contextually relevant sites where classroom teachers and pre-service teachers act and interact with one another in what Schatzki (2002) describes as purposeful ‘social projects’ that give teaching meaning and coherence. On this view, understanding the site in which practices are enacted and the practice architectures or arrangements that form educational practice in those sites is necessary if pre-service teachers are to develop an understanding of the nature of practices in the realities of the everyday happening-ness in the social sites in which they exist – the classroom.

As pre-service teachers usually understand it, ‘practice’ focuses primarily on the activity or what is ‘done’ in practice sites (for example, reading a book, doing the times-tables, conducting a science experiment, managing behaviour). Whilst the activity dimension (or material-economic arrangements) is important, alone it neglects two other critical dimensions of what Kemmis, Edwards-Groves, Wilkinson, & Hardy (2012) suggest constitutes the ‘whole’ of a practice: firstly, how practices are understood, communicated or comprehended by the ‘actors’ as they unfold in language in the cultural-discursive domain (in the dimension of semantic space); and secondly, how actors encounter practices in the relational or social-political domain (in the dimension of social space). These three dimensions of practice – sayings, doings and relatings – shape and are shaped, in interrelated ways, by the arrangements (conditions) and the historical traces of past educational practices that pertain in a particular site (such as teaching and learning in a classroom).

Social practices – like classroom teaching - come into being by being practised through the interconnected web of sayings, doings and relatings (Kemmis & Grootenboer, 2008) or ‘practice arrangement bundles’ (Schatzki, 2010), where these – with historical traces - shape and prefigure what practitioners can and will do, and to a certain degree, what they understand ‘their practice’ to be. On this view, understanding a practice such as classroom teaching requires understanding how these arrangements also furnish the substance for the sayings, doings and relatings which together constitute practice and make them comprehensible to those who enter and inhabit it. We argue that for pre-service teachers, both foregrounding and scaffolding the development of understanding these dimensions of
practice as they ‘practise’, is necessary if the role of dialogue for learning is to gain prominence in their theorising and enacting of teaching practice.

**Dialogic Pedagogy and the Dimensions of Talking to Learn**

There is a well developed and long tradition of studying the role, the nature and the impact of classroom interaction practices spanning many decades (see for example, Alexander 2001, 2008; Anstey, 1991; Baker, 1991; Barnes, 1976; Bellack, Kliebard, Hyman, & Smith, 1973; Brophy, & Good, 1974; Cazden, 1972; Edwards & Westgate, 1987; Edwards-Groves, 2002; Freiberg & Freebody, 1995; Heap, 1985; Johnston, 2004; MacLure & French, 1980; Mehan, 1979; Nystrand, 1997; Wells, 1981; Willes, 1983). A synthesis of this research documents the distinctiveness of classrooms as social practice sites. It represents teaching and learning as an interactive practice whereby the sociality of classrooms visibly influences classroom life. Furthermore, these studies show how the dialogic and interactional practices of classrooms shape not only knowledge and learning practices, but also teacher-student relationships. Goodwin and Heritage (1990), assert:

*Social interaction is the primordial means through which the business of the social world is transacted, the identities of its participants are affirmed or denied, and its cultures are transmitted, renewed, and modified. Through processes of social interaction, shared meaning, mutual understanding, and the coordination of human conduct are achieved.* (p. 283)

Viewing classrooms in such a way acknowledges that the practice of education is conducted and co-ordinated in and through interactions with others: teacher/student, student/student, teacher/teacher, teacher/principal, teacher/ student’s family.

This accumulated body of literature broadly describes classrooms as sites for socially accomplished activity (doings) in the moment-by-moment ‘happening-ness’ of teacher-student and student-student interactions (sayings and relatings). For example classrooms are arenas of rapid-fire and complex patterns of talk that consists of systems of direction and compliance, usually in some form of question and answer sequence (Alexander, 2008; Edwards and Westgate, 1987; Heap, 1985); management and organisation of students, activities and materials in the physical space (Frieberg and Freebody, 1995); and sites where curriculum meets the students through varying interactive arrangements (Edwards-Groves, 2002). In addition, it has been found that interactions which are dynamic (rather than static or monologic), collective, reciprocal, supportive, cumulative and purposeful (Alexander, 2008) have the potential to afford students more control in the interactive exchanges experienced in classroom learning. Terms such as dialogic teaching, dialogic enquiry, dialogic pedagogy, dialogic talk and dialogic instruction (Alexander, 2008; Churchill, 2011; Eilam and Poyas, 2009; Nystrand 1997; Skidmore 2000, 2006; Wells, 1999) have entered the discourse of pedagogy to highlight particular interactive orders and arrangements which enable a distinctive shift of power to classroom talk being a shared endeavour – that is, the province of both the teacher and the learner.

In the past, a number of classroom researchers have argued and demonstrated that although knowledge is embedded in talk (e.g. Baker, 1991; Heap, 1991) it is often provisional and regulated, as learning often connects to the successful compliance with particular interactional procedures routinely enacted in lessons (Frieberg & Freebody, 1995). What counts is the systematic ways in which classroom teachers and their students mutually construct the power and precision of verbal and non-verbal interaction in the production of classroom knowledge rather than what is essential as core practice. Early work by theorists such as Willes (1983) have also shown how early in schooling life students are enculturated into distinctive ways of classroom talk. In her seminal findings, the varying components of educational practice were often focused on ‘delivery systems’ (how teachers delivered
content and what content was delivered) rather than into considering the *unnaturalness* of engaging in quality interaction. Remarkably, since these theorisations, little has changed in the ‘taken-for-grantedness’ of classroom interactional practices and knowledge pertaining to the "naturalness" of classrooms as interactive social environments. Of relevance here is that although there has been a growing awareness of the distinctive features of interaction in learning events and their role in accounts of quality educational practice, what remains largely ignored are the ways in which these everyday details of classroom life are embodied and give effect to the development of efficacy in the interaction practices of pre-service teachers as they develop as practitioners. The ever-present recurrence of these concerns not only demonstrates the disputed nature of discourse about teaching development and pedagogy, but it neglects the fundamental argument that providing pre-service teachers with systematic and theoretically sound information relating to instructional practice is necessary for educational efficacy. Despite this, a prevailing view of teaching suggests it requires little more than patience, basic content knowledge, and liking children, rather than acknowledging the fundamental ways teaching is ‘unnatural’ work (Ball and Forzani, 2011). Therefore, in our view, acknowledging this *unnaturalness* implies a necessary turn to explicating the dimensions of dialogue in teacher education course as an object of focused instruction.

The *Talking to Learn* Project: Design and Methodology

The design of the ‘*Talking to Learn*’ project was based on the premise that to develop quality dialogue with students in classrooms, there is a need for pre-service teachers to overtly focus on the role of talk for learning. Consequently, the project presented to pre-service teachers opportunities to study the interactive nature of classroom events through situated experiences of how meanings are organised in language (in sayings), how the activities and processes of learning are arranged or setup in physical space time (in doings) and how relationships in classrooms operate and are constructed (in relatings). These interconnected practice architectures shape the conduct of the study seeks which aimed to address these key research questions:

1. How does observing and engaging in interactions in small groups with students in classrooms foster an understanding of the role of a teacher in students’ learning?
2. In what ways does working with students in classrooms and expert mentors over time assist in the development of quality dialogue between pre-service-teachers and students in school settings?
3. How do pre-service teachers account for the role of dialogue for learning after a participating in a program with a dedicated focus on talking to learn?
4. How does a focus on classroom interaction influence the development of patterns of quality dialogue among pre-service teachers and students in practicum placements?

In this project, volunteer pre-service teachers were guided to pay close attention to the details of the discourse actually spoken by teachers and their students in classroom exchanges, since it is at this level of granularity that we can see talk at work in shaping the learning process experienced by students in classrooms. Additionally, pre-service teachers, in mentoring pairs, ‘practised interacting’ with small groups of four to five students in their classrooms. The focus for these sessions was on interaction rather than on teaching or being assessed as typical in practicum placements. Primarily, the project was designed as an action research project designed to provide pre-service teachers with regular opportunities to:

- participate in overt instruction about the role of talk for learning
- focus classroom observations on interaction
develop quality dialogue through authentic, situated learning experiences with small groups of students in classrooms

talk with peers through mentoring conversations (reflection, mentoring feedback and debriefing)

talk with classroom teacher mentors (reflection, mentoring feedback and debriefing). Specifically, these in-class observations, practise and mentoring conversations (Timperley, 2001) were designed to focus on how lessons unfolded interactionally and on particular interaction orders and arrangements based on the work of Alexander (2008) and Church (2010). Mentoring conversations invited comment or questions centring on how teachers and pre-service teachers:

- Engaged in whole class, small group and individual interactions
- Invited students to extend responses
- Encouraged other children to expand or sustain the response
- Demonstrated active listening through body language, further comment or reframing
- Allowed appropriate wait time for thinking
- Gave encouragement and specific feedback
- Provided specific [and stage appropriate]curriculum information
- Gave responses that focused on building the dialogue
- ‘Vacated the floor’ so students had opportunities to direct the talk
- Fostered focused learning conversations between students about their learning

The intervention, represented in Figure 1 below comprised five main components. These included the initial input sessions at university (4 hours over 3 weeks), which included demonstration and guided role play and practising mentoring conversations with peers and teacher mentor; and situated in-school classroom observation of lessons, practising with a small group of students in classrooms, peer-mentoring conversations, and teacher mentoring conversations (4 hours over 7 weeks).
Participants and methodology

Data were gathered using a range of qualitative methods conducted during three main data collection points over seven weeks in four different school sites.

Group 1

136 volunteer First Year BEd Primary Students (124 remained at the end of the semester), 12 Teachers from 4 primary schools (Classroom Teacher Mentors), 2 system consultants and 8 academics (Mentors). These participants were involved in: initial and mid-point survey (BEd pre-service teachers); midpoint focus group interview with 5 classroom mentors; final survey (BEd pre-service teachers, 49/124 students responded); final teacher mentor focus group interview (taped and transcribed); and final academic focus group interview.

Group 2

14 volunteer First Year BEd Primary Students. These participants were involved in: weekly (6) audiotaped (and transcribed) lessons in classrooms; small group interaction sessions in classrooms; follow-up peer mentoring conversations (feedback and debrief); follow-up teacher mentoring group conversations; and final student focus group interviews (x2) (taped and transcribed).
Phase 1

The survey data collected in the first phase of the study firstly established the context for the research and enabled detailed documentation of participants’ initial views of teaching, learning and the role of dialogue in teaching and learning. Second, data gathered from the intervention (classroom observations, peer practise sessions with students and focused mentoring conversations) captured a fuller picture of the experience. Third, interviews with classroom teacher mentors, pre-service teachers, school system personnel and academic staff provided insights into participant accounts of the experience.

Phase 2

The second phase entailed a small group of 14 pre-service teacher volunteers audio-taping a small-group reading session one at the beginning and one at the end of their professional experience placement. This phase also involved follow-up teacher mentor interviews and post Professional Experience student focus group interviews (taped and transcribed).

Findings and Discussion

Recording, transcribing and analysing in-classroom teaching, and peer and teacher mentoring sessions enabled a description of how lessons are ‘set-up’ and unfold in interaction by making visible particular interactional features and pedagogical routines. Close examination of interview data revealed how participants accounted for their experiences. Examination of data revealed three main themes focused on:

• Talking to learn in classrooms - dialogic practices observed and practised in classroom sites (teacher-students; student-student);
• Talking to learn through mentoring conversations - dialogic practices experienced between mentor teachers and pre-service teachers, and peer mentoring partners; and
• Participant perspectives - how participants (teacher mentors and pre-service teachers) accounted for practices and development of practices.

This section presents findings focusing on the above categories [please note: all names are pseudonyms].

Talking to Learn in Classrooms: Making Visible Interactive Practice Arrangements

Observing, Practising and Critiquing Practice

It was evident that as pre-service teachers observed and practised ‘talking to learn’ they were developing understandings about the minute-by-minute unfolding of lessons and the intricate and consequential patterns of classroom interactive practices and routines. In this focus group interview excerpt pre-service teachers describe their observations and critique the practices encountered in their respective classrooms:

Tyler: I have noticed that when the students work independently they don’t get as much work done, where as in a group or pairs they all work together and get their work done by bouncing ideas off each other. …by putting them in groups to get them to do their work makes them talk about the topic of the work, therefore encouraging them to talk.

Caitlin: I think that might have something to do with Annemaree’s teaching style as well because like she, is it vacates the floor, is that what it's called? Like she’ll
say like ‘what do you know about Antarctica?’ and these kids are just bam, bam, bam, and they're all just building on each other’s points you know.

Tyler: There's no hands, there's no waiting, there's just give us all your knowledge, share it amongst yourself.

Caitlin: And that's what was really hard like with [that approach], ..it's really hard because you ask a question and you know where you’ve asked a good question but you just don’t get a word in because they [the students] just keep building on each other’s knowledge and I'm thinking, my teacher is going to think the kids do all the talking and I’m doing nothing (all laughing)......

Dylan: It is amazing how Kate [classroom teacher] never raises her voice; she brings herself right down to the eye level of the kids when she is talking to them and especially when she is managing behaviour. I haven’t seen that before. And I think the knee-to-knee [where students turn and face a partner] is actually a good way the teacher ‘vacates the floor’ and gives all the kids the chance to talk, give their opinion or say what they have learned.

Mikhail: At the start I did all the talking, I thought that was my job. But the thing I learnt from Annemaree was with the ‘no hands up’, I think it’s similar to the knee-to-knee you described, but they’ve just got different approaches. But what I liked with the no hands up, and I was amazed it worked at all, like the children were actually learning a lot of things that a lot of people our age don’t even know how to do and that’s just wait for somebody else to finish speaking before they come in and speak, children were learning how to do that at that age and they were very good at it and they sat there silently and let this person speak and they have the ability already, they’re getting it to know when they can go and speak without cutting the other person off and that’s a language for the rest of your life knowing how to do that.

In this excerpt the pre-service teachers orient to how classroom talk is different in important ways from mundane everyday conversations. In particular, they recognised the production and display of particular classroom routines as activities relevant to the categories of talking to learn. As described by Freebody (2003, p. 127), there was recognition of the differences in:

- the ways in which turn-taking is managed in their particular sites – as students are organised to turn ‘knee to knee’ or the ‘no hands up’ as routine ways for contributing or ‘talking to learn’ in these sites;
- the construction of purpose-built exchanges and the development of purpose-built parties to and alliances in the interaction – as the teacher ‘vacates the floor’ to enable students to build on each other’s points and share knowledge; and
- the systems of preferred and dispreferred contributions to the interactions – as one teacher speaks at the level of the students when managing behaviour, or when teachers accept or ignore some responses over others.

For them, the ‘doing of educational activities’ was bound up with the interconnectedness of physical arrangements (group work or knee-to-knee partners), the language structures or ‘sayings’ (what was spoken about; i.e. the topic of Antarctica), and the ‘relatings’ or the cultural discursive arrangements (vacating the floor, turn taking, the sharing of knowledge). More specifically, Dylan’s recognition that the ‘knee to knee’ routine was an enactment of the teacher ‘vacating the floor’ aiming to provide an opportunity for ‘all the kids to have a chance to talk, give their opinion or say what they have learned’, is an illustration of the critical importance of providing pre-service teachers opportunities to focus observations, practise and critique on the interactive dimensions of classroom lessons.
At a cursory level Dylan’s comment might be taken to be banal; however at another level his comment exemplifies three main points. Firstly, the opening of this communicative space for pre-service teachers to articulate and critique observed practices enabled them to make explicit the connections between the theory and practice they experienced, an opportunity which was not previously afforded pre-service teachers in this region. Secondly, the pre-service teachers were not only developing a metacognitive awareness of aspects of dialogic pedagogy, they were developing and displaying a meta-language to talk about their experiences in connection to interaction. Thirdly, their comments highlight the recognition that classroom knowledge and learning are mutually accomplished within the interactions encountered in lessons. In particular, learning about learning from observing and experiencing the ‘unnaturalness’ of educational practice, demonstrated for the pre-service teachers that teaching and learning are not independent actions, but exist as a nexus of sayings, doings and relatings ‘happening’ in sites of the social (Schatzki, 2002).

It was the participation in interactional sequences in the contextually relevant site of the classroom that both the pre-service teachers and classroom teacher mentors took to be crucial to the development of dialogic efficacy. This comment from the survey is typical of how pre-service teachers perceived practising in classrooms: ‘Having authentic interactions in classrooms is the only way to truly gain an understanding of the role of teacher talk in children’s learning; it allows you to experience it.’ In fact, for these participants, understanding the nature of classroom talk and its role for efficacy in teaching and learning hinged on the both actuality of the experience and the focus on talking to learn. Furthermore, the recognition by teacher mentors that practising in contextually relevant sites enabled interactional development is an important finding. To exemplify, teacher mentors in a focus group interview, below, identified that practising interaction was an important feature of the experience and one that enabled them to observe and enact the construction of purpose-built exchanges or interactional sequences:

Annemaree [teacher mentor]: That came through with the body language too, and the way they walk, when they walk with purpose or whether they just aimlessly wander and they became very conscious then ..., you really had to be purposeful. A lot of the unspoken parts of interaction really came out to them I think, yes.

Amy: I think one of the other big positives and learning experiences for them was, I remember one of my students said after the first week “Mrs Sh… can you remind those students to not ask us questions about everything other than what we’re supposed to be doing, we’re trying to be on task and they’re asking us about everything”. And I think that was a big change for them, for these guys realising that talk isn’t about anything, it’s very directed talk and there’s a real purpose behind the questioning and the thinking that has to go behind having a conversation with students, it actually does take considerable amount of thought, and they really seemed to try hard to improve the way they focused their talk on the actual topic.

Karen: The other thing they picked up in our [mentoring] conversations was around the difference in learning approaches I used for different parts of the lesson. They said it was really interesting when the children were on the floor – it was like a listening time and it was a different purpose for the interaction when they did knee to knee. They said then when they went off to work in small groups, there was another whole different kind of learning and they noticed that, so that’s good reflection from them. They noticed that... there were different interaction structures for different purposes. It’s amazing what they did pick up... so they really got on the wave – they were very fortunate to see the range of processes happening... But not just that, this experience gave them the chance to practice in a real classroom, the practising was so important as I noticed many of them
really trying out new ways of interacting each time with the groups of students they were working with.

Mark: Another incidental learning aspect was management, management of the kids... They worked in small groups I was rotating around so they basically had to manage the groups a lot of the time, and after the first week or two they were coming to me and saying “Such and such does this, how do I handle this?” So I’ve given them advice, and I think by the end of it they were certainly handling their groups a lot better and learning how to get the kids to do what they want. Learning to tailor the management by thinking about the interactions was a key for these students...

In considering the propositions about practice development offered by these teachers (for example; body language, tailoring management, different interaction structures for different purposes, goal directed talk), we suggest that understanding and developing practice is derived from both an understanding of the site by practising in the site, and the experience of pre-service teachers working interactively (in classrooms with students and with mentoring peers and teachers) towards the development of knowledge and skills in interpreting, critiquing and adapting interactive practices for themselves. Therefore, for these participants it was productive to view talk-in-interaction as both the project of classroom practice and the product of participatory action, shaping, transforming and renewing the context of its occurrence.

**Talking to Learn Through Mentoring Conversations**

Participating in mentoring conversations aimed to provide opportunities for participants to reflect on and critique practice in order to build knowledge and a theoretical base around the classroom exchanges experienced and observed. The next brief excerpt is taken from a mentoring conversation between a teacher mentor and pre-service teacher after an in-class session:

Kate [teacher mentor]: They had two different activities today and the way you approached them was very different, one you got to the point where they were almost relying on you, and in the other you gave them space to work things out for themselves. What was different about the two scenarios?

Damian [pre-service teacher]: I think it was because with the first one where they were given a science experiment, I didn’t really know how that was going to play out, and the second one I felt more confident with what they were required to do. What I needed to do was actually have a go at that experiment before I would have felt comfortable enough to be able to just step back.

Kate: I see that would have helped..... Then at the end, why did you want them to explain to you what they were doing? What did you see the benefit of explaining that to you?

Damian: Um, I s’pose ‘A’, it was for me to make sure they were on the right track, that they were testing, what they were meant to be doing/

Kate: /Yep

Damian: To actually see what they were testing and that they had an understanding of what was going on, um and also for them to, um, leading them with the questions that were being asked, by leading them to discover the things that needed to be discovered.

Kate: Ah, yep. If there was anything that I might have encouraged you to think about next time in our talk, it was/

Damian: yep
Kate: /and this is really hard too, but it is something to think about, is getting them to ask questions of each other/
Damian: /oh, okay, yep
Kate: /a little bit more/
Damian: Yep, good for me to work on next time

In this segment Damian is being drawn by Kate to explicate the interactional alignments between his action-in-interaction (the benefit of having students explaining what they had done) and the state of knowledge of the students. Interestingly, Kate commented later ‘he was struggling to find the language a little bit, and timid about talking about his practice, but towards the end that shifted. So, I thought that was really powerful that he could articulate that and be self aware to that extent. I thought he was really thinking; I could see him thinking so hard, I forgot he was first year.’ By extending his repertoire of consciousness about the details of practice, Kate gave relevance and substance to his justifications as he stated an educational rationale to his practice.

For pre-service teachers like Damian, this level of specificity in mentoring feedback enabled them to recognise their own interactive practices and explicitly connect these to the influential nature of talking to learn for students in classrooms. To exemplify, consider this comment from one survey respondent:

I learnt that I need to ask more open questions allowing the students to take the floor and also to get them to talk amongst themselves. That way, they learn, and grow in knowledge of each other, as the student who understands can solidify their own knowledge and for the student who does not, they may learn from their friend or peer.

Further, ‘coaching’ is valued as a dimension of mentoring conversations in this next extract from the teacher mentor focus group interview:

Raylene: ...the pre-service teachers are actually having some very focused coaching around aspects of thinking about talk and dialogue first.
Amy: And I guess they’re not being judged, you were there as the mentor rather than their assessor, they feel a little bit more comfortable asking things that they may consider to be dumb questions, like they’re not far enough in to think oh I should know that, so I’m not going to ask it, they’re very honest and open and I guess too apart of what you see in the classroom, like our classroom is built on the fact that humans make mistakes and that’s how you learn so I guess they’re willing to ask questions and make those mistakes and learn, it is about learning, it’s not about being there and being judged.
Mark: They were, although it was informal assessment, they were being assessed because I was sitting there taking notes and then in the mentoring session afterwards I would give them feedback on their questioning technique or things like that.

Woven through their comments teacher mentors recognised that by using talk as a benchmark it is possible for pre-service teachers to develop and transform the nature of the particular work of teaching, including the nature of the sayings, doings and relatings. This was recognised by the pre-service teachers as they evaluated the influence of mentoring conversations:

The whole feedback thing was I reckon the most important part of the project. You want to know what you’re doing, whether right or wrong, I do anyhow, I was asking like what am doing, I can’t do it perfect but I want to do know what I’m doing. The feedback and debrief sessions with the teacher mentor helped encourage and support us in how they observed us with the students and how we worked with them. It was excellent because I could really understand why thinking and talking about talk was so important for students learning.
Getting feedback about our talk was so constructive. The feedback given by was fantastic! She gave group as well as personal feedback. She asked us what we had difficulties with and how we addressed it, and then offered an alternative way to handle it for next time. She constantly encouraged us and gave us constructive feedback.

Orienting to the interactional influences and expectations that embody classroom practice through mentoring conversations focused on talk, these pre-service teachers were being ‘enculturated’ into teaching. For these participants these intersect with understanding their responsibilities for enacting productive educational events and for teaching accountability as they acknowledged an ‘understanding as to why thinking and talking about talk was so important for students learning’.

**Participant Perspectives**

‘Unlearning’: Critiquing Historical Practices in Contemporary Practice Sites

For pre-service teachers in this study, prior experiences pre-empted their expectations of how classrooms functioned, as indicated here by Mikhail who stated that ‘at the start I did all the talking, I thought that was my job.’ In one sense, acting out predetermined roles or default practices (determined by the knowledge of and experience in the context), was taken by Mikhail to be a characteristic course of action for him as a teacher, doing all the talking was what teachers did. It seems for Mikhail, that observing, practising and critiquing interaction was about simultaneously ‘unlearning’ that talk is fundamentally the province of the teacher. To further illuminate this point, an examination of the following excerpt from a focus group interview with pre-service teachers contextualises participant histories within the context of contemporary practices:

Shelly: Even I look at primary school classrooms now and it’s a completely different world, I only was in primary school a decade ago, it wasn’t that long ago and it’s so different; the way they communicate and they interact. It’s insane to see how much it’s changed.

Jenna: And the teacher did all the talking/

Jackie: /It’s so different you couldn’t speak until you put your hands up, the teacher directed everything, that was a surprise.

Q: Do you want to explore that?

Caitlin: (Laughing) well basically, we were used to the teacher controlling everything, well now, like when you ask an open question, I think because they're so used to being in that sort of environment because that's how Annemaree teaches. When you ask them an open question, they just, you can see their little eyes light up and they're like ‘oh well we know this, we know this, we know this’... I think the broadest question I asked was, ‘Antarctica, where is it and how would you get there?’ That was the hardest lesson for me, we had no preparation for it, ... and I was lost, I'm like, I didn't even know how to approach it, like approach the task of questioning but I'm okay now, but that, I learnt so much just from that one hour...

Tyler: Yeah, I was just shocked by that because when I was younger there was just a question, answer back, the teacher would ask another question, answer back. With Annemaree and her way of teaching is just so much better I guess, as in she asks an open question and enables the children to think for themselves about what else relates to the topic... And just the way the kids were talking about it to each other was so impressive and it’s, for me it helps me learn when you have other people instead of just the teacher talking to you. So it's easier to see the kids learning when they're talking to each other and asking themselves questions and answering the other kid, the other kids going ‘oh thank you’ and the other
kids saying ‘listen’. All the different knowledge’s in their brain just talking to each other.

Damian: Yeah it was quite similar indeed, yeah when questions were put to them they were all willing to chuck their piece in and listen to one, each other as well. They were helpful amongst each other, especially when we broke into our groups and gosh they’re like that. Regardless whether or not they found themselves a friend, once the activity started they began to share their experiences and help each other out. So, so different from my school days, I expected it to be the same actually.

It is noteworthy that a focus on interaction prompted these pre-service teachers to recontextualise their own experiences within historical space-time. That Tyler was shocked that things had changed from his own schooling for example, implies that talk routines are both reflective of and productive of the context of its occurrence in history (Freebody, 2003). Their descriptions about what they expected and the nature of the interactive changes since they were students implies ‘unlearning’ is desirable. It encouraged them, as developing teachers, to think about their practices in more flexible ways and to specifically consider more fluid arrangements of relatings, sayings and doings as they practise in classroom sites. It seems therefore that through this experience they may be better able to understand the complexity of practices and thus move beyond the restricted thinking of their previous classroom experiences. Considering these findings, pre-service teachers may indeed be led to enact responsive dialogic pedagogies rather than replicate known patterns of interaction of those precisely observed and those experienced in their own education as acknowledged by Love (2009).

The ‘Unnaturalness’ of Teaching

How teachers and students co-ordinate their everyday courses of action in and through the routines of their talk is often a pre-empted or taken-for-granted ‘natural’ consequence rather than a developed skill. Focused and continual examination of lessons and critique through mentoring conversations, for example, allowed pre-service teachers to move beyond considering the ordinariness or obviousness of classroom interactions towards recognition that overt practise is necessary for teaching development. And in recognising this they recognise it is unnatural work. By way of illustration, pre-service teachers in the following interview extract discuss how they struggled with and were challenged by their attempts to co-ordinate their actions through interaction:

Jessie: I found it a challenge, and this is one the things that my partner Karen would point out [in the mentoring conversations], ‘just make sure you’re not giving them the answers all the time’. I tend to want to give them the answers, just because, it’s like you’re almost there, and you’re so close and I just want you to know! Patience was a big thing for me, .... so that stepping back, it’s a difficult skill to master, it sounds easy but it’s not.

Dylan: That was one of the hardest things for me because you know at some point if they’re not going to get the answer you’re going to have to tell them but I couldn’t work out when that point was, being comfortable with silence, like in wait time was hard to judge. I just struggled with ‘oh I want to tell them the answer’, how many questions should I ask before I give in and then tell them. Shelly: How can you lead them towards the answer without saying this is the answer, getting them to work it out for themselves, that is a hard skill to learn. ....

Taylor: It didn’t come easily to me, I have to be honest now, my first day of prac was really terrible I wanted to shut up shop and I didn’t want to come back again. My group of kids, um my problem was that I didn’t have the confidence to
make the kids sit down and do their work. I’m not a forceful person, not good at giving instructions, I know that and when I said ‘come on, let’s sit down and do our work’, nope, they’d run around and did what they wanted. I was like, I don’t know how to deal with this. But, um, then after seeing the classroom teacher and how she dealt with it and how she just brought them in .. I’ve learnt it was something I had to work on myself. I was surprised the kids listened to me today. I had different language, different body language, I was more confident. .. , but once you change something like that, the way you use language, the more belief you have in yourself, you learn teaching is learning about yourself rather than just focusing on your kids, then you get a response.

These data illustrates that these pre-service teachers acknowledged that classroom interactions are not simply externally determined by the context or knowledge of the context, but that they are participants – with students - in courses of action in classrooms with the capacity to shape and transform the classroom experience. Acknowledging that talk-in-interaction is a skill to be learned and practised signifies interaction is transformable and requires the focus of attention for pre-service teachers.

Further to this, Annemaree (teacher mentor), during a mentoring conversation with pre-service teachers, when asked about the no hands up routine she favoured in her classroom described how much time it took for her to practise being confident with the ‘no hands up’ routine. This she suggests ‘is a skill that takes a lot of time and practise and patience to get going with the kids. There needs to be thought given to the details about why you want to have the kids working in this way’. Annemaree’s practising suggests the recognition of the unnaturalness of interacting in classroom teaching events which requires a movement toward making conscious the intricacies of the sociality of the classroom experience in her context. This also implies that novice teachers require opportunities to focus on the development of this dimension of a teachers work.

Making Authentic Connections Between the Theory-Practice Nexus

Strengthening the alignment between the theoretical and practical dimensions of undertaking a teacher education program is a constant issue for pre-service teachers and university academics. The following responses drawn from the final survey attest the importance of providing pre-service teachers with overt connections between theory and practice:

Engaging in classroom interaction in real classrooms helps us to understand and relate the theory we do in class. You can put things like open questions and wait time into practice and observe the real impact it has. We learn about how each child has different ‘D’iscourses, they come from different backgrounds and you don’t realise until you are actually in the classroom how each child has specific needs and different understandings and the teacher needs to respond to that.

‘Talking to Learn’ it’s fantastic for scaffolding your learning of all subjects here at university. By going into the classroom and working with the children, my peers and the classroom teacher I can now see and ‘feel the stuff’ we are learning at uni and it now makes sense.

When I am doing my reading I think, ‘I saw that happening in the classroom’. I could see the ‘outsiders’ and how the teacher tried to bring them in, and I could see how group work really helped the children talk and learn from each other. Now that I have seen it, practiced it and can understand it, I can write more critically about it.
We can begin by noting that these responses are typical of how many of the pre-service teachers accounted for their experiences in the ‘Talking to Learn’ project. This initial recognition is required so that practices can be then developed further. On this view, we argue that the influential role of interaction in classrooms needs to be accounted for in the attention it receives in teacher education courses to enhance the probability of pre-service teacher’s acknowledgement and enactment of dialogic pedagogies in later participation in classrooms. This point resonates with comments by the First Year teaching team. For example Terry, an academic, endorses the influential nature of connecting theory encountered in university subjects with the actualities of practice:

I think it’s wonderful, because now they have a base to relate all the things that I'm actually talking about... It seems so much easier to get concepts across because we’ve now got this base to relate to and they’ve been into a classroom.. before it was really all fantasy wasn’t it, I mean they had nothing to sort of relate to ... It gives me something to relate back to too in classroom discussions, you know they’ll be able to talk about it and how this part that I'm teaching relates to what they know.

Understanding the nature of classrooms as interactive spaces and the influence of talk on its participants is a core dimension of practice development which requires an overt place in teacher education courses. Locating theoretical propositions in actual circumstances displaying everyday educational interactions offers a conduit for the development of quality educational practices. The significance will be how these learnings are translated into ascriptions and attendant courses of action in classrooms as pre-service teachers move through their degree programs and into their careers.

The Significance of ‘Talking to Learn’ for Pre-Service Teacher Education

There is a huge array of research already conducted on classroom interaction and the role of a dialogic pedagogy, leaving the area replete with, and theoretically governed by pre-theorised concepts about efficacy of classroom talk and how teachers should interact in this space to the point where the actualities of practice are pre-fitted into these concepts or ‘philosophies’ of how to teach (Freebody, 2003). This study is an attempt to re-theorise the development of dialogic practice in pre-service teacher education, and to illustrate how the role of practising in contextually relevant sites is critical for bridging the theory-practice nexus and the development of efficacy in classroom practice.

It is well established that in classrooms there are potentially several things going on at once in and around the teaching and learning event, so different understandings become relevant for knowing and developing the core practices of teaching and learning. And unless these are the object of focus for pre-service teachers, as was the aim for this project, then the role of dialogue for learning may remain an undervalued, under-practised core skill of teaching. Furthermore, results imply that understanding that interaction is not simply about producing seemingly ‘engaging’ lessons but to support pre-service teachers grow in their intellectual knowledge and understandings about its connectivity with efficacy curriculum delivery through the school years.

The evidence presented has important implications for policies describing the design and focus in teacher education courses. Findings show that if we lead pre-service teachers to look deeply beyond the surface of classroom teaching and view the interactive practices as the object of overt focus during their undergraduate studies, understandings about effective pedagogy and teacher development will develop from beyond a ‘taken-for-granted’ dimension of teaching practice. Results serve an understanding of how participants’ roles and relationships are constructed within situated learning context, and the impact these have on the nature of learning events. These pre-service teachers demonstrated and articulated a shift in their understandings about the role of talking to learn, one which was based on their
developing valuing of systematic and analytic pedagogical approaches. This theory–practice connection provides a basis from which pre-service teachers can critically understand their own practice and the variety of political, social and economic practices that influence and shape educational practices more broadly.

**Conclusion**

The question for this paper was how to move pre-service education towards a view of core classroom practices which considers three main aspects of developing as a teacher: firstly, the interconnectedness of the cultural-discursive (sayings), material-economic (doings in physical space time) and social-political (relatings) orders and arrangements that hold teaching in place; secondly, the importance of understanding the social and interactive nature of the classroom as a site for learning; and thirdly, the nature of a dialogic pedagogy. This necessarily requires designing for dialogue (Hayes & Matusov, 2005); that is, designing opportunities for pre-service teachers to engage in site-based experiences aiming to assist a shift in understanding practices in education which are conducted in and through language and relationships with others. In these terms, this means that change must necessarily be directed towards transforming broader pre-service education course structures. This essentially lies at the foundation of the “Talking to Learn Project” described in this paper.

For us there is inherent and far reaching value and impact for pre-service teachers studying interaction, for in it lies its contribution to the efficacy of pedagogy – a central concern for education globally. To gain traction in pre-service education, serious consideration to re-direct teacher education to focus on developing core practices, such as the role of dialogue for learning, is necessary. The findings do not claim to provide explicit parameters for change in teacher education, but they strongly suggest the need for teacher education programs to provide ongoing and overt opportunities for pre-service teachers to conceptualise classroom experiences as interactive practice. Specifically, the study represents a new positioning for theories and models of teacher education as it illustrates the effectiveness of conceptualising ‘learning-through-interaction’, viewed by some researchers and theorists to be instrumental in the understanding of excellence in teaching.

For pre-service teachers to conceptualise their understandings of the interactivity and sociality of pedagogy, they need to engage in, practise, reflect on and analyse classroom practice at the “primordial” level of classroom interaction. This study is a timely work in this regard. Its direction is important not only because it proposes to document the development process as pre-service teachers reconceptualise teaching and learning as interactive practice, but the research has important implications for ways in which pre-service teachers theorise ‘practices of learning’; that is talking to learn. In this vein, to undercut ongoing issues in the future, classroom talk needs to move beyond the province of the teacher to become a dialogic exercise. To do this teacher education policy needs to ensure courses lead pre-service teachers to construct and develop educational encounters which demonstrate a metacognitive awareness of the role of talk-in-interaction, and moreover productive ways of relating to their students, and more broadly, to the wider community and beyond.

Finally results inform the global debate which focuses on the efficacy of pre-service education. The challenge is ensuring the role of quality talk for learning is explicated across all subjects and is developed across courses as a theoretical proposition which guides teacher educators and pre-service teacher’s understandings and thus their bases for efficacy in practice. In making the claims presented here the paper invites further exploration of practice development and in particular the core practices of teaching and learning.

**References**


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