

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,900

Open access books available

185,000

International authors and editors

200M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



Knowing Pedagogical Dialogues for Learning: Establishing a Repertoire of Classroom Interaction Practices as Core Teaching Practice

Christine Edwards-Groves

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.78968>

Abstract

Pedagogical talk in classroom lessons forms the dynamism of teaching and learning. Understanding how talk functions and influences learning in highly nuanced ways is a fundamental matter for understanding professional practice, and indeed teacher efficacy. However, it is often the case that preservice teacher's (PSTs) explicit knowledge about the role of dialogue for accomplishing lessons hovers above understanding and enacting a repertoire of talk moves that 'actively' promotes student learning and agency. Indeed, both a meta-awareness of dialogic approaches to teaching, and a metalanguage language for talking about talk in lessons, is generally limited to cursory knowings focused on questioning. Arguably, this limitation has the potential to restrict student learning when PSTs begin their teaching careers. The chapter draws on a three-year empirical study conducted in a teacher education faculty in rural Australia. The study centred on supporting PSTs understand dialogicality as core to teaching and to practise enacting quality pedagogical dialogues in classrooms with students. Specifically, this chapter argues that to be productive it is necessary for PSTs to understand, develop and practise a repertoire of interactive talk moves that treat student contributions in discussions as critical for the accomplishment of productive learning experiences.

Keywords: action research, classroom talk, interaction, mentoring conversations, pedagogical dialogues, practice architectures, talk moves

1. Introduction

Interacting with people is a taken-for-granted and assumptive facet of humanity. In everyday life, communicating (and the language that shapes it) forms a fundamental and familiar

social and societal activity. As Johnston ([1], p. 9) explains, language “is not merely *representational* (though it is that), it is also *constitutive*. It actually creates realities and invites identities”. Thus, for teachers in educational settings, language and its use is critical for shaping the realities and identities of the students in their classrooms. And indeed, as Johnston ([1], p. 4) suggests, 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”. In classrooms interacting and communicating with students emerges as especially complex since the kinds of interactions that occur in classroom lessons differs from those encountered in everyday life. Classroom interactions, in the main, are not like dinner table conversations, nor are they like a chat with a group of friends, they are different simply because of the number of parties (a cohort of many students and their teacher) involved in the interactions. In schools, as well as a socialising function, the power of language encountered in day-to-day lesson activity extends to having a pedagogical function and a managerial function. Through it, a

[t]eacher’s language can position children as competitors or collaborators, and themselves as referees, resources, or judges, or in many other arrangements. A teacher’s choice of words, phases, metaphors and interaction sequences invokes and assumes these and other ways of being a self and of being together in the classroom ([1], p. 9)

Classroom talk, and the dialogues that shape it, thus is a powerful and influential practice architecture for shaping teaching and learning, a critical aspect of everyday pedagogical practice. Further to this, its efficacy in lessons is a fundamental matter for understanding professional practice, the dynamism of teaching and student learning. The question is to what extent teachers have an explicit working and workable knowledge of its role and influence on student learning, participation and engagement, and the flexibility to adjust the discursive flow of lesson interaction sequences (for different pedagogical, social and managerial purposes) through strategically enacted talk moves. This chapter examines the flexible enactment of classroom talk and the pedagogical dialogues it enables and constrains as a matter of urgency for teacher knowledge professional knowledge and in particular for teacher education.

2. Understanding the problem of pedagogical talk and classroom interaction

Teaching is an interactive, observable activity and is patterned in the sense that what teachers and students do and say does not occur randomly; but has recurring and characteristic patterns which have been found to exist in the analysis of classroom literacy lessons [2, 3]. However surprisingly, that in classrooms where students are expected to develop and use oral language and to learn to interact and to learn content through interacting with others, the extensive body of research in this field shows that it is still the teacher who does most of the talking ([4], p. 4). Although much research on how talk functions as a pedagogical tool and influential for student learning in highly nuanced ways, it is an aspect of practice that remains entrenched in predictable teacher-student exchange patterns and interactive routines. Foremost is the tri-part question-answer teacher-dominated turn-taking sequence known as

the recitation script [5]; this typically involves a teacher Initiation (generally a question) move, then student/s Response/s move, followed by a teacher Evaluation or Feedback move. This exchange system is commonly referred to as the IRE/IRF [4, 6]. It has been shown to be an asymmetrical teacher-controlled interactive structure that, and as Cazden [5] identified, provides two turns for the teacher and one for one student from the cohort in every exchange sequence. Further, it has been suggested that this talk structure governing the conduct of many lessons also limits dialogic talk in lessons since students' turns are often restricted to the response slot in the three-part structure [4, 5].

In 2006, Nystrand ([7], p. 394) recognised that classroom interaction practices have "have remained remarkably unchanged over the last century and a half". Skidmore ([8], p. 511) even suggested it is "the groove into which classroom pedagogy so easily settles by default". Indeed, "even experienced teachers themselves have limited knowledge about this dimension of their pedagogical and curriculum work" ([4], p. 4). Yet, shifting away from the recitation script or varying teacher talk moves to become more dialogic appears to be difficult [9], or at best marginally accomplished unless deliberate moves are made by teachers to achieve more dialogic talk practices [9, 10]. Although over many decades longer term spaced teacher professional development, including action research studies conducted with teachers, have made attempts to support teachers disrupt the resistant hold of the IRE/F on their classroom talk and interaction practices [11, 12–14], monologic talk remains intractable.

Conceivably, part of the perpetuation of the issue is that in preservice teaching courses in many institutions, learning teaching practice has had a limited explicit focus on classroom talk [15]. It is often the case that preservice teacher's (PSTs) explicit knowledge about the role of dialogue for accomplishing lessons hovers above understanding and enacting a repertoire of talk moves that 'actively' promotes student learning, participation and engagement and agency. Indeed, both a meta-awareness of dialogic approaches to teaching, and a meta-language or a more precise technical language for talking about talk in lessons, is generally limited to cursory knowings about questioning. Developing a metalanguage about talk and interaction is necessary for PSTs to be able to speak coherently (to each other and to other education professionals) about how dialogue works as a pedagogical practice; developing a meta-awareness is an overt consciousness, knowledge and understanding of one's own dialogic practices as enacted in practices. These are considered central for practice development [15]. Arguably, this limitation has the potential to restrict student learning when PSTs begin their teaching careers.

A focus on the talk and interaction makes visible the systematic ways in which teachers and students create their relationships and their classroom culture, the power and precision of verbal and non-verbal interaction in the production of classroom knowledge, and the ways in which what *counts* as learning is established [16]. Therefore, against this historical background of the study of classroom talk and interaction and understanding of its function as a core teaching practice, implications for PSTs are underscored. The unyielding taken-for-grantedness of classroom talk and its resistance to development and change in professional practice leaves open the question about whether an explicit focus on talk and interaction in teacher education courses is necessary if future teachers are to understand and enact a flexible repertoire of classroom talk and interaction moves. Faced with a career that inherently rests

on their capacity for talking and interacting with their students (as a core pedagogical tool) [17, 18], it stands to reason therefore that such a focus is not only warranted, but essential if indeed the promises of education are to be realised. The central argument in this chapter therefore asserts that an explicit knowledge of the role of classroom talk and the development of a repertoire of dialogic talk moves cannot be taken too lightly in preservice teacher education. Further, that to change current practices in teacher education requires changing the practice architectures that enable and constrain learning dialogicality as a critical dimension of teaching practice.

3. Theoretical framework

In recent years, a new line of enquiry in practice theory offers a new way of conceptualising practice and practice development. Among others, Green [19], Kemmis and Grootenboer [20] and Schatzki [21] 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. Theoretically, the chapter draws on the theory of practice architectures [20, 22] which proposes that practices—like teacher education, teacher learning and teaching—are informed and shaped by particular *cultural-discursive* arrangements (the sayings of a practice), *material-economic* arrangements (the doings of a practice) and *social-political* arrangements (the relatings encountered in practice) which prefigure, but not determine, the practice.

In this vein, the multidimensionality of the practice arrangements of learning to teach during school-based professional experiences is explored. This theory seeks to understand teaching and learning practices in the sites within which they happen *as* they happen; that is, it seeks to make meaning of the existential and site ontological dimensions of practice in school classrooms [23]. After Schatzki [21] and Kemmis et al. [22], considering the existential (that which actually exists in time and space) and site ontological (where practices actually happen) dimensions of practice means grappling with the robustness and complexities of lived realities and site-based conditions that influence the social orders that exist in actual sites or places where social practices like teaching and learning are enacted. Through empirical material, the chapter seeks to provide dynamic descriptions of the particular conditions that stimulate and support the practice development of PSTs through their interactions with students in classroom sites.

Specifically, participant accounts and how the particular practice arrangements of interacting with students in classrooms form the intersubjective mechanisms for understanding how learning about teaching dialogically take place will be presented. This view of practices aims to provide the means to analyse practices like teacher education and to discover the conditions (the practice architectures) which make them possible. Practically, the nature of the interactions PSTs have with students in classrooms as a platform for learning about teaching, learning about learning and connecting this to theory will be examined. What PSTs learn about dialogic

teaching from listening to and interacting with students in classrooms and the value they place on this as formational for understanding teaching from their first session of study will be highlighted.

4. Reconceptualising teacher education courses: supporting PSTs understand teaching as an interactive activity

This chapter draws on a three-year empirical study conducted at a rural Australian university which investigated how learning teaching practice is not only informed but formed through interrogating the theory-practice nexus *in enactment*. It was notable that in this particular university site, classroom talk and interacting with students in classrooms was not the focus of explicit instruction in coursework or practicum placements for PSTs; it was taken-for-granted that PSTs could interact with students in classrooms. As a response to this enduring issue, the project presented in this chapter formed part of a broader study investigating teacher education practices aiming to support PSTs move towards pedagogical efficacy. Pedagogical efficacy, according to [24], depends not only on what one does, but also on the depth and quality of the understandings by which it is guided. Therefore, establishing what knowledge and theory actually guides and determines a PST's actions in the context of their interacting with students in classroom lessons in order to develop their practices from the onset of their careers, is a fundamental platform from which professional practice is improved.

The specific project, *Talking to Learn*, called for teacher educators to reconceptualise their courses and approaches for supporting PSTs develop core skills and teaching practices [17, 18, 25, 26]. Central to the project was making explicit the theory-practice nexus. The importance of the interconnection between theory and practice is also expressed strongly by Hughes [27] who suggested that without theory, practice consists of a set of unrelated actions with little or no basis for improvement.

4.1. The talking to learn project rationale

The project was developed based on the fundamental premise that it is through quality interactions with students in classrooms that teaching efficacy is constituted [28]. It centred on the development of quality classroom interactions and dialogic pedagogies of PSTs—issues of practical concern for education globally [29–32]. In fact, it aimed to redress the fact that classroom talk and developing dialogic teaching practices in classrooms remains implicit, taken-for-granted and under-examined in preservice teacher education courses [33]. Furthermore, explicit instruction along focused opportunities for ‘practising’ engaging in dialogic pedagogies with students in classrooms, currently receives little dedicated space in many preservice education courses [28]. This neglect leads to a tendency for PSTs 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 [33].

Therefore, the *Talking to Learn* project aimed to support PSTs understand how classrooms work interactively and, in particular, draw their attention to the organisation of classroom discourse as a powerful way of showing them the situated construction of classroom life, learning and culture. Further, supporting PSTs to critically examine the nature and extent of their learning about and enacting pedagogical dialogues was considered critical for their development as a teacher. Explicating the role of particular teacher talk moves, as core for generating teaching practices necessary for generating learning and thinking, formed an explicit focus for post-session learning conversations between teacher mentors and PSTs [28]. These conversations took place in classrooms after PSTs practiced interacting with small groups of students. This feature of the project provided an authentic context for ‘informed participation’ in critique about teaching practice [34].

4.2. The project design

The project design was premised on the need for PSTs to overtly focus on developing quality interactions and pedagogical dialogues with students in classrooms. In this project, volunteer PSTs were guided to pay close attention to the details of the discursive details of the language, discourse patterns and routines actually spoken by teachers and their students in classroom exchanges. Preservice teachers, in mentoring pairs, then ‘practised’ interacting with small groups of four to five students in their classrooms. The focus for the PSTs was on listening and interacting 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 first year PSTs with weekly opportunities to:

- participate in overt instruction about classroom interaction and pedagogical dialogues focused on enacting particular talk moves that support students to:
 1. sustain the point
 2. extend and deepen their thinking to build participation and engagement
 3. challenge and question the thinking of others
 4. demonstrate listening actively
- focus observations of teaching in classrooms on the dimensions of interaction and dialogic talk, which included ‘learning to listen’ to what students said, the language used, how they interacted with each other;
- practice
 1. allowing wait time for thinking and formulating
 2. asking open guiding questions
 3. vacating the floor

4. giving learning focused responses
 5. reflecting on and reviewing learning
- develop quality dialogic practices through authentic learning experiences with small groups of students in classrooms by practising a repertoire of talk moves; and
 - talk with peers and classroom teacher mentors through mentoring conversations (critical reflection and mentoring feedback).

These weekly in-class observations, practice sessions and mentoring conversations (after [35]) were conducted over 12 weeks in the first semester of their Bachelor of Education degree.

4.3. Learning through authentic experiences in classrooms: observing, listening to and interacting with students

Research on what PSTs learn through authentic experiences in classrooms is overwhelmingly dominated by reports on what they learn from listening to and interacting with supervising teachers. However, there is a dearth of research specifically describing what they learn through their interactions with students in the classrooms.

The idea of learning to observe and listen to students in classrooms is not new. 'Kidwatching' (coined by Yetta Goodman [36]) emerged and evolved over time as a concept which encompasses listening to and observing students in classrooms with the aim of assisting teachers learn to develop responsive practices and enhance their professional work. However, 'kidwatching' has remained a province of teachers rather than as a focused approach for strengthening the learning of PSTs. Moreover, although quality interactions are recognised as a feature of effective teaching, it typically receives little dedicated space for development across many teacher education programs. Research has shown that a limited focus on developing effective classroom interaction leads to a tendency for PSTs to enact, predominantly by default, more traditional communication practices in placement classrooms (such as didactic teacher dominated talk). Their interactive practices are often based on replicating known patterns of interaction experienced in their own school education [33].

Interestingly, research reporting on PSTs observing and listening to students in classrooms appears to be mainly locating in analysing videoed lessons [37], or in lessons focused on the subject of Mathematics [38, 39] or music [40]. This chapter is an attempt to re-theorise the development of quality teaching practices in teacher education [41] and to illustrate how a focus on *practising* interacting with students in classrooms influences what PSTs learn about dialogic teaching from listening to and interacting with their students in their school placements. Furthermore, I aim to show how learning to listen and learning to interact in contextually relevant sites is critical for bridging and extending the theory-practice nexus. It will be argued that to know about the role of classroom interaction for learning is simply not enough, what is required for PSTs to develop a repertoire of dialogic talk moves is overt *designed-in* opportunities to focus on learning to listen, observe and interact with students in classrooms.

5. The action research approach

The study was a three-year qualitative research and drew on a range of qualitative research methods, including participatory action research [42]. Over the period of the study, participants included 346 PSTs (all of whom participated in the compulsory in-class program, the instruction and the final evaluation survey) and 24 PSTs (from the larger group) who volunteered to audio-record their small group interactions with students in classrooms and to participate in recorded follow-up de-brief mentoring sessions and interviews. Participation in the recording of in-class interactions and the interviews was optional since it was the first session of study for the degree for these first year PSTs. Volunteer students (arranged in pairs) were purposively placed in the one school so that teacher lessons and follow-up de-brief sessions were more easily recorded. Along with the group of 346 PSTs, other participants included 16 classroom teachers and six academics, who also participated in instructional sessions at the university and the final evaluation survey conducted after the in-class experiences at the end of the semester.

Data collection periods were mainly in the first semester in each year of the study. In particular, recorded interviews, observations of volunteer first year PSTs interacting with small groups of students in classrooms and observations of these PSTs participating in de-brief mentoring conversations with their supervising teacher were conducted (see Edwards-Groves [15]). Data from the audio-recorded small group interactions between PSTs and their small group of students (24 recordings in total) were transcribed as a record of the actual discursive production of the talk-in-interaction [2, 43]. Further, each classroom teacher and pairs of volunteer PSTs were issued with a small video/audio recorder (Flip Cameras) for the duration of the study to record the classroom lessons, mentoring conversations and small-group interactions. Additionally, post-observation discussions and focus group interviews with PSTs were conducted after the in-classroom sessions were completed at the end of the university semester. These data were audio recorded and transcribed. The research was approved by the University's Human Ethics in Research Committee and according, informed consent was provided by PSTs, academics, teachers, principals, students and care-givers. Participants were sent transcripts of interviews for the purposes of validation; noting this provided them with an opportunity to verify, confirm and clarify their comments and make adjustments and additions to their recorded words if necessary.

Thematic analysis, as described by Braun and Clarke [44], was employed in this study since it is a useful and flexible method appropriate for a range of theoretical and epistemological approaches. Used to identify, organise, analyse, and report patterns (themes) within and across a corpus of data [44], it offers scope to develop rich and detailed, yet complex accounts of data. Specifically, in this study Braun and Clarke's six-phase coding process was used to delineate clearly established, meaningful patterns. These phases are: familiarisation with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report ([44]; p. 16). Following this process through several iterations provides the analyst with the analytic mechanism for pinning down the

particular themes considered critical for answering the particular inquiry. This chapter specifically draws on selected excerpts of recorded lesson interactions between volunteer pairs of PSTs and their follow-up semi-structured focus group interviews [45]. These interviews were conducted to build participant accounts and associated attributions of participant experiences and explanations of the teaching practices in focus [46].

6. Findings and discussion

Thematic analysis of the recorded debrief interview, post-observation discussion and small-group in-class data elicited three broad themes. Specifically, it revealed the learnings occasioned by first year PSTs about the value they placed on: first, kidwatching and critically observing talk moves in classroom lessons; second, 'actually' practising interacting with students in classrooms; and third, how they attributed much of what they had learnt about dialogic teaching to the focus on learning to listen and interact with students. These themes will be discussed in turn.

6.1. Kidwatching and critically observing talk moves in classroom lessons

Observing the interactive dimensions of teaching provided PSTs with an opportunity to focus on how talk and interaction in classrooms works to support student learning and participation. In Excerpt 1, from a transcript of a post-observation discussion PSTs Ryan, Lily and Ben discuss the Grade 3 lesson on space they had just observed.

Excerpt 1: The Greek chorus: PSTs discussing a lesson observation

1. Ryan: ... I noticed though it's not really a discussion if the teacher controls it all the time, it seemed to be a management structure which features the initiation so a teacher asks the questions, and what she's saying's usually ambiguous, quick fire questions and invites this back and forth with the students, that's less engagement in learning content, that it is actual pseudo participation, so it's kind of like a Greek chorus if you like, where there's that toing and froing but there's not actual engagement in learning=
2. Ben: =or even a dialogue, it's more ((Lily interrupts))=
3. Lily: =So, it's not a learning conversation then, is that what you mean?
4. Ryan: Yeah and it's so fast paced it's like really clicking through and then it's usually met with feedback along the lines of, well done, thanks for that, like it's not taking it to that next level of feeding it back to the class, what do we think about that or taking it to another step by extending learning so it's like a=
5. Lily: =so yeah that to and fro she's doing closes down opportunities for extending deeper thinking, learning, or you know extending student growth, rather than opens them up and it shuts down the possibility of reflective answers from the students

6. Ryan: one thing I was thinking about was vacating the floor, and how part of a dialogue was silence, being comfortable with the silence in wait time and owning it to give the kids enough to think about what to say first and talk among themselves=
7. Lily: =so the kids have enough time to really get a good response happening, like its handing the control a bit back to the students
8. Ben: arh:ha, and watching the kids talking with each other in their groups was so interesting, you know their body language too and how they were so used to the school thing of putting up your hand and stuff, one thing I saw some kids looked bored, that they did not know, but I knew they were clever because of what they were saying to me in the group
9. Ryan: =so makes you wonder what they really know about the universe and space actually, because most of them do not get to talk at all
10. Ben: and so I was wondering about that, I was wondering about just, as an aside, where all that sits with learning. So, if we've got this system that's based on control of dialogue it's the same as being the gate keeper of knowledge or the truth, it's the same as classroom control and power. If you've got all that going on with using dialogue for opening it all up, then you're going to have fantastic problem solvers and you're going to be building genuine knowledge
11. Lily: but good point, I did not think about that, um so when you actually have children being encouraged to have multiple perspectives and they have different meanings and multiple meanings from the same text, how challenging would that be, be to manage?
12. Ryan: exactly and so what I was talking about before with everyone being funnelled towards one understanding, you know with the IRF, to get to this sort of dialogic talk is having multiple perspectives and all the different things can be true about the same thing at the same time; but how is that reflected in standardised testing where you have got to have that one answer correct?...

In this segment these three PSTs raise several interesting themes related to dialogue in classroom lessons and how it relates to learning. In turn 1, for example, Ryan recognised the ways the IRF relates to an awareness of power and management in classroom interactions. In fact, he described the IRF interaction exchange structure he was observing as “pseudo participation”. Lily developed Ryan’s point further (in turn’s 3 and 5) by clarifying that it actually is a move that is counter to a “learning conversation”. She then extended the idea by suggesting that the “toing and froing closes down opportunities for extending deeper thinking, learning”. Her comments that the IRF is a structure that shuts down participation orients to the notion that she recognised that it might, in fact, restrict student growth.

Ryan and Ben develop the point about the IRF question-answer structure further by raising the matter of strategic silence and owning the silence. Their comments suggest that having the teacher vacate the floor to let students have more control of the conversation makes it more dialogic. As Ryan (turn 6) stated, “being comfortable with the silence and owning it, to give

the kids enough to think and talk among themselves” is a critical talk move that enables, as Lily (turn 7) adds, “kids to have enough time to really get a good response happening”. She went further to suggest that it shifts power by “handing the control a bit back to the students”, rather than as Ben (turn 10) recognises, the teacher being “the gate keeper of knowledge and truth”. Ben’s example (in turn 8), highlighting the ways that interactive routines like raising your hand to indicate knowing or preparedness to offer a response to a teacher question, can in reality function to limit student’s capacities to demonstrate what they actually or genuinely know about a topic like the universe or space; thus as Ryan suggested (in turn 1) means “less engagement in learning content”.

Through their conversation it was evident that they were explicitly noticing and critiquing talk moves and using a metalanguage for describing it; for instance, they made connections to dialogue, problem solving, vacating the floor, extending learning, knowledge development, providing learning focused feedback, open questioning, having multiple perspectives, reflective responses, and wait time. These aspects of pedagogical dialogues, for them, became explicit knowings and the focus on observing classroom interactions was a practice architecture that enabled this to emerge. It was evident that as Ryan, Lily and Ben were orienting to the talk and interaction that they had observed they were at the same time building their understandings of it. Specifically, this was notable in turn 8 where Ben’s response “arh:ha” indicates coming to a new understanding and Lily’s acknowledgment (turn 12) that Ben’s comment was a “good point” and one that she “did not think” about previously. Their exchanges showing how they were orienting to each other’s thinking, demonstrates the ways they made critical connections between the practices they were observing, the theory they were learning about and the role of dialogues for student learning and engagement. And in fact, as Ben explained (in turn 8), kid watching was pivotal in this process. What is evident here is the theory-practice nexus *in enactment*. Their comments are particularly striking since these PSTs were only in their first session of their degree program.

6.2. Practising interacting with students in classrooms

One aspect of the *Talking to Learn* project was providing PSTs with weekly opportunities to practise interacting with small groups of students. After a few sessions, sessions PSTs tried out different talk moves. In this next segment (recorded on a Flip Camera issued prior to the project), PSTs Lily and Ben are working with a small group of five Grade 3 students; their focus is following up on the science lesson on space.

Excerpt 2: “Wow, you know more than me”: PSTs interacting with a small group of students.

1. Ben: So, what did you do yesterday?
2. S1: We drew how big the sun, moon and earth was
3. S2: The size of the sun and the earth
4. S1: Because before we experimenting with the different balls-

5. Lily: oh, what about the balls?
6. S1: with the different sizes of the balls, like tennis balls and footballs
7. S4: like putting them in order
8. S1: approximately
9. Lily: So, what they actually were, as opposed to last week, you just drew what you thought the sizes were, did not you?
10. S3: Yeah.
11. Ben: Fantastic. And today, what did you get to do?
12. S5: Asked to, now that explain, explain the sizes, why the=
13. S: =Moon and the sun.
14. S5: Moon and the sun. How did we do that thing? How do we do it again? ((makes hand gestures representing making different sized circles))
15. S2: What?
16. S: No it's not like that
17. S: Like that?
18. S5: And the moon and the sun, explain why the moon and the, the moon and the=
19. Lily: =you forgot the word, it's sun.
20. S5: I said that, the moon and the sun.
21. S4: The sun's in the middle but ... ((talk overlapping)).
22. S3: Is not it earth, moon and sun?
23. Lily: Well the earth, I guess she's thinking that the earth will be in the middle, and like, where we are, how come when you are in the sky we look at it and they look the same size.
24. S1: But we cannot see earth, can we?
25. S3: No you need a [big radio telescope, that's a big
26. S5: [You know, because we are in it.
27. S2: Oh, no even if you had a telescope you could not-
28. S1: But we **can** see it because we are in it-
29. S3: because telescopes look from where you are and not down at the Earth, you are not in a rocket
30. S2: yeah like you have to be in the sky=

31. S4: =in space actually
32. S1: depending, though sometimes the moon is closer to the sun
33. S5: yeah like when it goes 'round the other side
34. Ben: wow, you know a lot, I better do some study, you know more than me
35. S2: I need a rubber. Where's a rubber?

This segment of talk between five students and two PSTs draws attention to the everyday sociality of lessons; it shows the discursive nature of how sequences of exchanges hold together to form a recount of a prior learning experience. Here participating meant listening to the students as they build their recounts to the initial question posed by Ben, "what did you do yesterday?" What unfolded was a sequence of turns whereby the students developed a collective response adding onto the turns of others (turns 2–8), asking for clarification from others (turn 22; 27–32), questioning (turns 24) and challenging another student's point (turns 24, 25–33). Practising interacting with these students involved talking with *and* listening to their responses. What is interesting is that in the post-session discussion with other PSTs, Ben admitted, "I didn't realise they knew so much". In this discussion Ben went further to explain:

I did not realise that listening, really listening to the children, was so hard. I really had to focus and practice.

Lily agreed. She took up this point further in her comment:

For me active listening was a key to how much I learnt. I actually had to learn to listen to them with more care and precision. I did not sort of get they knew a lot already. I completely underestimated how much they already knew and could do with things like web searching... so if in the end I did not listen with intent then my teaching would lack responsivity and then in the end be completely ineffectual.

Ben and Lily's comments highlighted a key finding; that focusing critically on listening to and interacting with students was critical for developing dialogic practices within the intersubjective spaces of classrooms. This approach highlighted, for the PSTs, the particular interactive orders and arrangements that shape a dialogic approach to teaching and learning practices (or not). It enabled them to recognise, experience and articulate how their interaction experiences provided a necessary condition for student learning and engagement. For them to be effective, they both sensed and experienced that pedagogical dialogues required an overt knowledge of talk and interaction and a distinctive shift of power towards enacting talk moves that reflected that pedagogy is a shared endeavour. As their peer Bridie agreed,

Through listening to another's point of view or opinion – including the children – I myself can learn more about various things and broaden my knowledge, and also can relate to what others may be feeling or thinking on a certain topic. This highlights what we need to explicitly know, the idea that classroom discussion between children can be a vital help to a child's learning through talking and listening and can have the same effect on them as it did on myself. Different talk moves can certainly help them go further, get involved more.

Bridie's realisation that talking to learn should be the province of both the teacher and the learner is important for understanding the power and influence of talk and interaction (especially listening) on learning. Her comments show that rather than always having a focus on the act of teaching a lesson in their practicum placements, PSTs shifted their perspectives on what teaching practice entails by becoming attuned to dialogic pedagogies and the need to build a repertoire of talk moves as critical for interacting with students in lessons.

Through their engagement with learning to talk and interact with students in a focused way, PSTs began to orient to and critically reflect on their own interactions with their group of students. In post-session de-brief interviews, they raised a number of key points about developing and enacting a repertoire of talk moves. For instance, Bella conceded, that "wait time is hard"; she went on to acknowledge:

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 with each other, as the student who understands can solidify their own knowledge and for the student who does not, may learn from their friend or peer.

An overt focus on learning about and practising talk and interaction seemed to be perceived as essential for develop metacognitive awareness of its power and influence on students learning and participating in lessons. Jeb's comments below were typical of the viewpoints of many of the PSTs:

I didn't realise I had to be more conscious about what I was going to say next, what talk move to use actually – that depends on what we were doing of course, but it takes a lot more thought to be effective I think. But the key for me really was having the chance to try out different talk moves.

Without exception all PSTs recognised that, like Jeb, having the time background to after the second section as an essential condition for their own learning about classroom dialogue. This practice architecture, "the chance try out different talk moves", appeared to be a fundamental condition for understanding dialogicality, knowing about pedagogical dialogues and developing i) teaching practices, ii) dialogic teaching practices, and iii) a flexible repertoire of interaction moves. As Jeb said, it required an overt consciousness or meta-awareness of its impact on teaching for student learning; and that according to him, "it takes a lot of thought to be effective".

Learning about dialogic teaching through "talking to learn"

In general, it was found that the many underlying beliefs held by PSTs about what teaching actually entailed were re-conceptualised as a result of the in-class focus on listening and interacting. This reflection by Ben was typical of the comments made by PSTs about the process:

So, having the chance to interact with the children in small groups gave me the opportunity to interact with a focus and apply and even understand the theory we have learnt in lectures and workshops without the distraction of the whole class around them.

Collectively, the following themes from a thematic analysis of interview and survey data emerged; overall preservice teachers:

1. acknowledged that they had to learn to listen, it did not come naturally.
2. acknowledged that they had to learn to interact with children, for many it was taken to granted and so had to learn to talk with students and practise 'trying out' different talk moves.
3. highlighted that listening was a foundation for understanding student knowledge; many did not realise (and were surprised by) what students actually knew about the range of topics. They were of the belief that the role of the teacher was to deliver curriculum rather than the 'find out about the learner and what they knew prior to teaching'.
4. highlighted they had learned about the importance of responsivity in teaching; that is, by listening closely to what students said in interactions provides value information to which teachers should respond.
5. articulated an deepening understanding that classroom interactions form an intersubjective mechanism for teaching and learning, and they needed time to explicitly practise different talk moves.
6. recognised that different talk moves shifted the power and control of learning towards students.
7. reconceptualised classroom interaction as a pedagogical tool, rather than a taken-for-granted dimension of being a teacher.
8. articulated an understanding of the duality of their roles as a both a teacher and as a learner.

For the PSTs in this project, to conceptualise their understandings of the interactivity and sociality of pedagogy, they needed to engage in, practise, reflect on and analyse classroom practice at the primordial level of classroom interaction [2].

7. Conclusion

The challenge for teacher educators is always ensuring the role of quality teaching is developed across courses. This work needs to be both a theoretical proposition which guides teacher educators and preservice teacher's understandings and a practical proposition which supports efficacy in enactment. This study informs the field of teacher education about how and what PSTs learning about pedagogical dialogues through learning to listen and interact with students in the moment-by-moment interactions they encounter in classrooms. It was found that framing the in-class experience around learning about and enacting dialogic practices, and situating these experiences in classrooms as a site for learning teaching practice, made the focus authentic and timely for first year PSTs. It provided a fundamental, yet critical foundation for understanding and enacting a flexible repertoire of pedagogical dialogues. For PSTs the importance of connecting theoretical propositions made within teacher education course with the authentic interactions with students in classrooms from the beginning of their degree program generated a significant meta-awareness of the nexus between theory and practice.

This study provides timely outcomes in that it specifically documents the conditions, or changed practice architectures [22], required for PSTs to reconceptualise teaching and learning *as* interactive practice. The research also has important implications for ways in which PSTs reflect on [47] and theorise ‘practices of learning’ and ‘practices of teaching’ from the early stages in their formation as teachers. In this vein, to undercut ongoing issues of teacher efficacy by explicitly knowing about and enacting pedagogical dialogues in the future, classroom interaction and learning to listen to students needs to move more directly into focus in teacher education. To do this teacher education policy needs to ensure courses lead PSTs to construct and develop educational encounters which demonstrate a metacognitive awareness of the role of listening and interacting, and moreover provide overt ways for PSTs to practise different talk moves in authentic classroom contexts.

The results directly inform the global debate which focuses on the efficacy of preservice teacher education. In particular, this chapter challenges teacher education in its propensity for taking for granted the importance of creating focused opportunities for PSTs to learn to listen and interact with students in classrooms as an *existential and ontological* foundation for learning to teach. Broadening teacher education practices to more explicitly account for listening to and interacting with student in classrooms - without the constraints of assessment—must be addressed to advance educational development globally. In making these claims the chapter invites further exploration of practice development and in particular the development and enactment of core dialogic practices such as communicating, listening and interacting with students in classrooms.

Author details

Christine Edwards-Groves

Address all correspondence to: cgroves@csu.edu.au

School of Education, Charles Sturt University, Wagga Wagga, Australia

References

- [1] Johnston P. *Choice Words: How our Language Affects children’s Learning*. Portland Maine: Stenhouse Publishers; 2004
- [2] Frieberg J, Freebody P. Analysing literacy events in classrooms and homes: Conversation-analytic approaches. In: Freebody P, Ludwig C, Gunn S, editors. *Everyday Literacy Practices in and out of Schools in Low Socio-Economic Urban Communities*, Volume 1. Canberra: Commonwealth Department of Employment, Education and Training, Curriculum Corporation; 1995. pp. 185-372
- [3] Mercer N, Littleton K. *Dialogue and the Development of Children’s Thinking: A Socio-Cultural Approach*. London, UK: Routledge; 2007

- [4] Mehan H. *Learning Lessons: Social Organization in the Classroom*. Cambridge: Harvard University Press; 1979
- [5] Cazden CB. *Classroom Discourse: The Language of Teaching and Learning*. Portsmouth: Heinemann; 1988
- [6] Sinclair JM, Coulthard M. *Towards an Analysis of Discourse: The English Used by Teachers and Pupils*. London: Oxford University Press; 1975
- [7] Nystrand M. Research on the role of classroom discourse as it affects reading comprehension. *Research in the Teaching of English*. 2006;**40**:392-412
- [8] Skidmore D. Pedagogy and dialogue. *Cambridge Journal of Education*. 2006;**36**(4):503-514
- [9] Edwards-Groves C, Davidson C. *Becoming a Meaning Maker: Talk and Interaction in a Dialogic Classroom*. Primary English Teaching Association Australia: Sydney; 2017
- [10] Alexander R. *Towards Dialogic Teaching: Rethinking Classroom Talk*. Cambridge: Dialogos; 2008
- [11] Edwards-Groves C, Anstey M, Bull G. *Classroom Talk: Understanding Dialogue, Pedagogy and Practice*. Primary English Teaching Association Australia: Sydney, Australia; 2014
- [12] Hennessy S, Rojas-Drummond S, Higham R, Márquez AM, Maine F, Ríos RM, García-Carrión R, Torreblanca O, Barrera MJ. Developing a coding scheme for analysing classroom dialogue across educational contexts. *Learning, Culture and Social Interaction*. 2016;**9**:16-44
- [13] Myhill DA, Jones S, Hopper R. *Talking, Listening, Learning: Effective Talk in the Primary Classroom*. London: Open University Press; 2005
- [14] Reznitskaya A. Dialogic teaching: Rethinking language use during literature discussions. *The Reading Teacher*. 2012;**65**(7):446-456
- [15] Edwards-Groves C. Learning teaching practices: The role of critical mentoring conversations in teacher education. *Journal of Education and Training Studies*. 2014;**2**(2):151-166
- [16] Baker C, Green J. Guest editor's introduction. *Australian Journal of Language and Literacy*. 1996;**19**(2):101-104
- [17] Ball D, Forzani F. Teaching skillful teaching. *The Effective Educator*. 2010;**68**(4):40-45
- [18] Grossman P, Hammerness K, McDonald M. Redefining teaching, re-imagining teacher education. *Teachers and Teaching*. 2009;**15**(2):273-289
- [19] Green B, editor. *Understanding and Researching Professional Practice*. Rotterdam: Sense Publishers; 2009
- [20] Kemmis S, Grootenboer P. Situating praxis in practice: Practice architectures and the cultural, social and material conditions for practice. In: Kemmis S, Smith TJ, editors. *Enabling Praxis: Challenges for Education*. Rotterdam: Sense; 2008. pp. 37-64

- [21] Schatzki T. *The Site of the Social: A Philosophical Account of the Constitution of Social Life and Change*. University of Pennsylvania Press: University Park, Texas; 2002
- [22] Kemmis S, Wilkinson J, Edwards-Groves C, Hardy I, Grootenboer P, Bristol L. *Changing Practice: Changing Education*. Springer International: Dordrecht, The Netherlands; 2014
- [23] Kemmis S. Researching educational praxis: Spectator and participant perspectives. *British Educational Research Journal*. 2011;1-21
- [24] Adams M. *Beginning Readers: Thinking and Learning about Print*. A Summary Prepared by Stahl S, Osborn J, Lehr F. Chicago: University of Illinois at Urbana-Champaign; 1990
- [25] Reid J. A practice turn for teacher education? *Asia-Pacific Journal of Teacher Education*. 2011;**39**(40):293-310
- [26] Zeichner K. Rethinking the connections between campus courses and field experiences in college and university-based teacher education. *Journal of Teacher Education*. 2010;**89**(11):89-99
- [27] Hughes GJ. Prescriptivism in theory and in practice: The moral philosophy of R.M. Hare. *The Heythrop Journal*. 1973;**14**(2):136-146
- [28] Edwards-Groves C, Hoare R. "Talking to learn": Focusing teacher education on dialogue as a core practice for teaching and learning. *Australian Journal of Teacher Education*. 2012;**37**(8):82-100
- [29] Collins C. Envisaging a new education studies major: What are the core educational knowledges to be addressed in pre-service teacher education? *Asia-Pacific Journal of Teacher Education*. 2004;**32**(3):227-240
- [30] Egan BA. Learning conversations and listening pedagogy: The relationship in student teachers, and developing professional identities. *European Early Childhood Education Research Journal*. 2009;**17**(1):43-56
- [31] Fenimore-Smith JK. Democratic practices and dialogic frameworks. *Journal of Teacher Education*. 2004;**55**(3):227
- [32] Woodruff E, Brett C. Collaborative knowledge building: Preservice teachers and elementary students talking to learn. *Language and Education*. 1999;**13**(4):280-302
- [33] Love K. Literacy pedagogical content knowledge in secondary teacher education: Reflecting on oral language and learning across the disciplines. *Language and Education*. 2009;**23**(6):41-60
- [34] Edwards A, Gilroy P, Hartley D. *Rethinking Teacher Education: Collaborative Responses to Uncertainty*. London: Routledge; 2004
- [35] Timperley H. Mentoring conversations designed to promote student teacher learning. *Asia-Pacific Journal of Teacher Education*. 2001;**29**(2):111-123
- [36] Goodman YM. Kid-watching-watching: An alternative to testing. *National Elementary School Principal*. 1978;**57**(4):41-45

- [37] Xio Z. "You Are Too Out!": A mixed methods approach to the study of "Digital Divides" in three Chinese senior secondary schools [Unpublished doctoral thesis]. Durham University; 2013. <http://etheses.dur.ac.uk/8456/1/thesis.pdf>
- [38] Harkness S, Wachenhrin K. Using listening journal in math method. *The Teacher Educator*. 2007;**43**(1):59-71
- [39] Ryan J, Kassem D, Sarland C. What teachers learn from children's mathematical arguments in discussion: Moving to a new pedagogical model. Paper presented at the British Educational Research Association Annual Conference; 11-13 September; Heriot-Watt University, Edinburgh. 2003
- [40] Haston W, Russell J. Turning into teachers: Influences of authentic context learning experiences on occupational identity development of preservice music teachers. *Journal of Research in Music Education*. 2012;**59**(4):369-392
- [41] Edwards-Groves C. Reconceptualising first year professional experience: Enacting a repertoire of learning focused talk for efficacy in teaching practice. In: Brandenburg R, McDonough S, Burke A, White S, editors. *Teacher Education: Innovation, Interventions and Impact*. Singapore: Springer; 2016. pp. 79-97
- [42] Kemmis S, McTaggart R. *The Action Research Planner*. 3rd ed. Victoria: Deakin University; 1988
- [43] Drew P, Heritage J, editors. *Talk at Work: Interaction in Institutional Settings*. Cambridge: Cambridge University Press; 1992
- [44] Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006;**3**(2):77-101
- [45] Mertens D. *Research Methods in Education and Psychology: Integrating Diversity with Quantitative and Qualitative Approaches*. Thousand Oaks, CA: Sage; 1998
- [46] Freebody P. *Qualitative Research in Education: Interaction and Practice*. London: SAGE Publications Ltd.; 2007
- [47] Edwards-Groves C, Gray D. Connectivity between developing praxis and reflective practice in teacher education: The affordances and constraints reported by preservice teachers. In: Kemmis S, Smith T, editors. *Enabling Praxis: Challenges for Education*. Amsterdam: Sense Publishers; 2008. pp. 85-108

