



TEACHING & LEARNING
RESEARCH INITIATIVE
NĀU I WHATU TE KĀKAHU, HE TĀNIKO TAKU

Pedagogical intersubjectivity:

Teaching and learning conversations between children
and teachers

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Introduction

This project builds on prior national TLRI research investigating teaching and learning episodes between teachers and child during their everyday interactions (Carr, et al., 2008; Davis & Peters, 2008). These prior studies indicated that teachers sometimes found it difficult to:

1. choose which of the children's interactions they should involve themselves in to develop opportunities for children's learning (Carr, 2007; Davis & Peters, 2008)
2. interact with children in ways that avoid "hijacking" their developing working theories (Davis & Peters, 2008).

International studies exploring early childhood education practices were also considered in the planning of this project. Specifically, the "Effective Provision of Pre-school Education" (EPPE) study (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2010) and the "Researching Effective Pedagogy in the Early Years" (REPEY) study (Siraj-Blatchford, Sylva, Muttock, Gilden, & Bell, 2002; Sylva, Taggart, Sammons, Melhuish, & Elliot, 2003) in the United Kingdom were significant. These international studies suggest that effective teaching and learning lies within the co-construction of reciprocal conversations between teachers and children where sustained shared thinking and adults' use of open-ended questions were imperative.

With these prior studies as a foundation, the current project aimed to investigate teacher-child interactions with a specific focus on analysing everyday verbal and non-verbal communications between teachers and children. As the New Zealand early childhood curriculum is of international repute (Waller, 2005), a closer investigation into how it is implemented in an everyday context is essential for teacher training and early childhood education research both nationally and internationally. The main aim of this project was to reveal *how* everyday moments of teaching and learning were co-produced by teachers and children.

Key findings

1. Although open-ended questions are promoted in international studies investigating early childhood pedagogy, this research revealed the importance for teachers to consider how they respond to children's answers following open-ended questions. Through valuing this third position in conversation, teachers can ensure that they are supporting and valuing the child's contribution and not "hijacking" the interaction, or simply asking a series of questions (Bateman, 2012a; Bateman, in press).
2. The research found that the teachers used their own personal interests to facilitate teaching and learning episodes in what presented itself as *dispositional teaching* (Bateman, Bennett, Cairo, & MacMillan, in press). This finding builds on prior influential research that explores children's learning dispositions (Carr, Smith, Duncan, Jones, Lee, & Marshall, 2009), and it offers further understanding of how teaching and learning is co-constructed through the interests of each participant.
3. Various levels of knowledge status and stance (Heritage, 2013) were presented in the turns-at-talk from both children and teachers. This finding demonstrates how either children or teachers can be the more knowledgeable depending on the situation, and how intersubjectivity is co-constructed through the process of knowledge exchange and sharing (Bateman & Waters, in press).

Major implications

These findings suggests that teachers could:

1. when asking open-ended questions, ensure that they listen to the children's responses and pick up on an aspect of the answer to convey to the children that they are actively listening and that they value the children's contributions
2. be aware of their own individual interests when teaching, as the research revealed that personal interest often influenced and helped to support teaching and learning episodes through shared interests; if unaware that their interests are evident in their teaching, teachers could inadvertently lean towards their own interests rather than the interests of the child
3. be sensitive to the different levels of knowledge children have in various situations. This is demonstrated by children as they ask questions to find out more knowledge, or make statements about things to demonstrate their knowledge ownership. Teachers can then be more aware of their role in the interaction and decide when telling about things in a teacher-directed way is more appropriate and when supporting co-equal partnerships in knowledge sharing is.

The research

Background

The research involved establishing a partnership with teachers who were similarly interested in investigating the turn-by-turn sequences of verbal and non-verbal communication in moments of teaching and learning. The research involved three early childhood teachers from Campus Crèche, Hamilton, where one teacher worked with toddlers and two teachers worked with pre-school children. The teachers were video-recorded during their everyday interactions with children for two mornings a week during the first round of data collection in February, and for one morning each during the second data collection in September. Once the filming had stopped at the end of each session, the teachers were asked to identify moments where they thought teaching and learning had occurred during the recorded time. The identified "pedagogical moments" were then transcribed and analysed by the researcher using conversation analysis to reveal the orderly features of teaching and learning present in the identified interaction.

The research questions

The research questions directly addressed issues that were raised in prior TLRI studies (Carr, 2007; Davis & Peters, 2008) and so were deemed as important when investigating teaching and learning in New Zealand. The research questions were:

- What does teaching and learning actually look like in the moment-by-moment of an everyday interaction under the New Zealand *Te Whāriki* curriculum framework?
- How do early childhood teachers follow a child-initiated inquiry to maximise learning?
- What teaching and learning takes place when a child initiates an interaction as opposed to a teacher?
- How sustained do interactions have to be to produce teaching and learning?
- Are there varying levels of intersubjectivity in everyday pedagogy?
- What is noticed, recognised and responded to by children and teachers, and what verbal and non-verbal responses are evident?

Methodology and analysis

Conversation analysis was used to reveal repetitive themes that emerged from the data through the iterative process of watching and listening repeatedly to the teacher-selected footage. Once a theme viewed as important to the participants was identified, the features of conversation evident in the turn-by-turn production of that theme were transcribed using conversation analysis transcription conventions (Sacks, Schegloff, & Jefferson, 1974). The analysis took place during the transcription process, where specific features of the conversation were investigated to reveal how the interaction was being co-constructed by the participants. These analytical findings were shared with the teachers after they had viewed the video-recorded episodes themselves and had given their own reflective interpretation of what was happening. The teachers' reflections together with the conversation analysis provided a thorough insight into the identified pedagogical moments.

Results

Examples of transcriptions

The following presents brief examples of transcriptions from each teacher to demonstrate the features of conversations between the study participants. These transcriptions are a small example of episodes that were identified as effective pedagogy, or teaching and learning episodes, by the participating teachers. These brief examples of the transcripts will be used to answer the research questions below. See Appendix 1 for an explanation of the conventions used in the transcripts.

Sharmila: Second round of data collection and analysis (September 2012)

Following her first round of data collection with a child who was able to communicate his intentions verbally, Sharmila wanted to investigate her interactions with one of the younger children in the group to investigate how a child with limited verbal skills would communicate their intentions to her. The following interaction took place in the sandpit area where Sharmila (Shar) is sitting with one of the toddlers, Te Aranga (TGA). Te Aranga is holding a container and Sharmila is talking to her about it.

- 01 Shar: what are you going to put ↑ in there ↓ ((*points to*
02 *the container*))
03 TGA: ((*shrugs her shoulders*))
04 Shar: what would you ↓ **like** ↓ to put in there ↓
05 (3.4)
06 TGA: ((*lifts up a spoon and holds it out to Shar, they*
07 *have eye contact*))
08 Shar: should I:: make something too ↓ =should I make a big/
09 should I <ma::ke so::me> > ↑ chicken ↑ <
10 TGA: ((*nods and maintains eye contact*))
11 Shar: do you like chicken ↑
12 TGA: ((*nods and maintains eye contact*))

Nadine: First round of data collection and analysis (February 2012)

It is morning in the pre-school playground. The children have taken Chipmunk, the pre-school duckling, out of his habitat and are following him around in the outdoor space of the pre-school. In the following interaction, Nadine (NAD) engages in conversation about the duckling with pre-school children Ella (ELA), Annie (ANE), and Dylan (DYL).

- 01 ELA: Lets look for some wormies for him ↓ ((picks up a tub,
02 crouches down and moves soil with her hand))
03 NAD: where are we gonna look for some worms ↓
04 ELA: ↓ here ↓
05 NAD: ↑ here ↑ . okay that's a good idea ↓
06 ((Nadine and children look for worms in the soil))
07 ANE: Could she be on our knees ↓
08 NAD: Ah=I ↑ think that she wants to have a ↑ quick ↑ look
09 arou::nd (0.7) and see if she can find something
10 to eat ↓ first ↓ (0.8) and when she gets tired
11 she'll want to sit on your knee.
12 ((Children continue to follow Chipmunk around))
13 NAD: Shall we see if she wants a ↑ swi:m ↑
14 DYL: ↑ >yep< ↑
15 NAD: ((Carries Chipmunk over to a bucket of water prepared by
16 Rayed and places him in))
17 DYL: Her needs it deep (1.4) yeah=her need it ↓ deep ↓ (2.3)
18 I'll make it deeper for her (0.3) coz her l:i/ that's how
19 her () that's how her swims ea:sily ↓ ((pours water
20 into the bucket))

Tim: First round of data collection (February 2012)

It is morning in the pre-school. The early childhood teacher is observing children in the playground. Frank, one of the male pre-school children, begins to talk and Tim approaches him. The following interaction unfolds:

- 10 Tim: [can you **balance** . if you stand
11 ↑ up ↑ ((holds right hand out towards Frank's
12 hand with palm facing upward))
13 Frank: err:m °(↓ I don't=wanna=fall ↓)° ° ↓ err:: ↓ °
14 ((takes Tim's hand and stands up. Lifts left
15 foot and places it on the plank))
16 Tim: your gonna put one foot in <**front**> of the
17 **other** ↓
18 Frank: ° ↓ err:: ↓ ° ((lifts right foot out to the side

19 of the left foot so that he is balancing on one
 20 foot on the plank))
 21 Tim: put ↓ **this** ↓ foot in front of ↓ **that** foot ↑
 22 ((places his free hand on Frank's right foot
 23 and guides it onto the plank in front of his
 24 left foot))

Analysis of extracts by research question

1. What does teaching and learning actually look like in the moment-by-moment of an everyday interaction under the New Zealand Te Whāriki curriculum framework?

Through transcribing the conversational exchanges between the teachers and children in detail, the organisation of talk which co-produces teaching and learning is evident. Specific ways in which the strands of *Te Whāriki* were implemented are explained in more detail in Bateman et al. (in press), which demonstrates: *ensuring the well-being* of the child through encouraging them to have a role in their own learning; *belonging*, through supporting each child's participation; *contribution*, through valuing each child's turn-at-talk; *communication*, through listening and responding to verbal and non-verbal exchanges; and *exploring social relationships* through their interactions.

2. How do early childhood teachers follow a child-initiated inquiry to maximise learning?

Tim and Nadine's transcriptions above both demonstrate interactions which were initiated by children. In Nadine's interaction, she supports Ella's learning by replying to her enquiry in a way which unites them in a joint enquiry through using the word "we" (line 03) (Bateman, 2012b; Butler, 2008); this supports Ella in her own learning through opening up opportunities for her to explore her idea further. Likewise, in Tim's interaction, although Frank seems to be apprehensive about crossing the plank, Tim supports him by encouraging him verbally and non-verbally, giving him the opportunity to learn how to do it. These interactions demonstrate how a child-initiated enquiry is supported through knowledge sharing, listening to the child and through the teachers using their own interests in the environment as a teaching tool (Tim) and in facilitating a community (Nadine) to maximise the child's learning.

3. What teaching and learning takes place when a child initiates an interaction as opposed to a teacher?

In the interaction between Sharmila and Te Aranga, we see that the teacher initiated an interaction with the child, although the initial conversation opening orients to the child's chosen task. Nadine's interaction is initiated by the child, as is the case with the interaction between Tim and Frank before Tim approaches him. In all interactions, the sequences of conversation develop in a way which support the initiator's reason for approaching and are co-constructed around the interests of the child and teachers. This suggests that either the child or the teacher can initiate an interaction; it is the response to the interaction that will secure a teaching and learning episode where the participants' turn-by-turn flow of the conversation will co-produce the interaction. If a person is approached with a conversation opening that is not of interest to them, the initiation may not be responded to and extended, unlike in the transcript excerpts above.

4. How sustained do interactions have to be to produce teaching and learning?

- The interactions do not have to be very sustained. This is observable throughout the transcripts where teaching and learning can be seen to take place in just a couple of turns-at-talk. These brief interactions happen often and demonstrate how teachers are continuously engaging with many children throughout their centre day. Through briefly engaging with many children many times, children learn that they belong to a community where turn taking is an important part of relationship building in everyday social organisation. This finding is supported by Carr (2011), who also valued brief one-minute conversations being as important as longer sequences.

5. *Are there varying levels of intersubjectivity in everyday pedagogy?*

The research revealed that, although intersubjectivity between teachers and children was evident throughout the recordings for the natural flow of conversation to continue, there were also various levels of knowledge that each participant had in different situations. This is evident in the transcripts where Sharmila presents herself as less knowledgeable by asking questions and responding to Te Aranga's non-verbal tellings, and where Tim presents himself as knowledgeable about how to cross the plank when Frank needed support. In Nadine's interaction (lines 01–05), Nadine demonstrates that she is the less knowledgeable in her interaction with Ella through asking questions, but then engages in a co-equal knowledge sharing with Dylan (lines 07–20) as she adds some knowledge and then Dylan does. These displays of levels of knowledge are important to be aware of in teaching in order to understand the ever-evolving role of the teacher in supporting and extending children's knowledge.

6. *What is noticed, recognised and responded to by children and teachers, and what verbal and non-verbal responses are evident?*

Throughout the research the teachers noticed that they were needed when a child initiated an interaction with them by calling their name, or by the teachers initiating an interaction themselves by approaching a child. The child's needs were recognised in the teacher's response, and the teacher's recognition of a potential teaching and learning opportunity was recognised and responded to when the teacher approached a child and initiated an interaction. Furthermore, the findings reveal that the participants used their own interests to co-construct a learning and teaching episode (Bateman et al., in press).

Limitations

Further research could build on the findings from this study to give a greater focus on children's learning, particularly with regard to children with more than one language, as this research is limited in that respect. This could be achieved through altering the method of investigation by recording the children rather than teachers, in order to be more aware of their daily choices and initiation of activities.

Conclusion

Pedagogical intersubjectivity was co-constructed between children and teachers through attending to the interests of each participant, to the answers of children once questions were asked, and by being aware of levels of knowledge ownership children have in various situations. These findings reveal the fine details of turn-taking processes evident in everyday teaching and learning moments and how important it is to be aware of these conversational features when interacting with children.

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Amanda currently works at the University of Waikato, New Zealand as a lecturer in early childhood education.

Amanda began her career in early childhood education as an early childhood practitioner in Wales. Following several years of working in this area she became more interested in the theoretical aspect of this area and began a PhD at the Centre of Childhood Research at University of Wales Swansea in 2006. Amanda's PhD thesis is entitled "Children's Co-construction of Context: Prosocial and Antisocial Behaviour Revisited" and uses conversation analysis and membership categorisation analysis to investigate the resources used by 4-year-old children in the co-construction of social organisation. This study demonstrates the importance of acknowledging the strengths of each child rather than using a blanket labelling of "antisocial" or "prosocial" children. Amanda currently works at the University of Waikato, New Zealand as a lecturer in early childhood education.

Amanda has published from her thesis and continues to use conversation analysis and membership categorisation analysis to investigate various aspects of early childhood. Recent research includes analysing teacher and child interactions in New Zealand and Wales, and children's post-earthquake play in Christchurch.

Appendix 1: CA transcription conventions

The conversation analysis symbols used to transcribe the data are adapted from Jefferson's conventions described in Sacks, Schegloff and Jefferson (1974).

| | |
|-------------------|--|
| [| the beginning of an overlap |
|] | the end of an overlap |
| = | the equals sign at the end of one utterance and the beginning of the next utterance marks the latching of speech between the speakers. When used in-between words it marks the latching of the words spoken in an utterance with no break. |
| (0.4) | the time of a pause in seconds |
| :: | lengthening of the prior sound. More or less colons are used to represent the longer or shorter lengthening. |
| ↑ | a rising intonation in speech |
| ↓ | a falling intonation in speech |
| <u>Underscore</u> | marks an emphasis placed on the underscored sound |
| Bold | words which are underscored and bold indicate heavy emphasis or shouting |
| °degree sign° | either side of a word indicates that it is spoken in a quiet, soft tone |
| (brackets) | utterance could not be deciphered |
| ((brackets)) | double brackets with words in italics indicate unspoken actions |
| .hhh | audible in-breath |
| hhh | audible out-breath |
| >arrows< | utterance spoken quickly |