
Learning Dispositions and the Role of Mutual Engagement: factors for consideration in educational settings

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ABSTRACT This article describes an emerging theoretical framework for examining relationships between learning dispositions and learning architecture. Three domains of learning dispositions – resilience, reciprocity and imagination – are discussed in relation to the structures and processes of early childhood education settings and new entrant classrooms. This framework was developed during the analysis of the data collected for the Dispositions in Social Context project, funded by the Royal Society of New Zealand Marsden Fund and headed by Anne B. Smith and Margaret Carr. This article includes examples from this research project, which explored the relationship between learning architecture and the dispositions of children within these education contexts.

Introduction

This article introduces a framework that is emerging from the analysis of data collected for the Dispositions in Social Context project. This project was funded by the Royal Society of New Zealand Marsden Fund and is headed by Anne B. Smith and Margaret Carr.[1] The project began with the desire to both explore ideas about learning dispositions (building on Margaret Carr's earlier work) and to develop research methods that would include children's perspectives (building on the work at the Children's Issues Centre at the University of Otago). One focus of the research was to explore how children's learning dispositions travel between the various settings and activities the children participate in, such as home, their early childhood setting and then later school. This article draws heavily on a position paper written by Margaret Carr as part of the wider research project.

The framework that is emerging from this project, we argue, can be used to structure a sociocultural analysis of the relationship between learning architecture and learning dispositions. In this article, we will outline our framework briefly before focusing on one of the modes of disposition construction it suggests: engagement. The experiences of two of the children we observed in the project will be used to identify and examine specific characteristics of learning architecture that support engagement in particular, and learning dispositions in general.

The Research Design

The New Zealand Marsden study was an ongoing three-year study. The data collection was completed in 2005. A main focus of the study has been on the following question:

How are three domains of learning disposition – resilience, interest/involvement and reciprocity – embedded in activities and episodes of involved activity in early childhood centres, homes and schools, for four to six year olds?

Twenty-seven case study children were selected from five early childhood centres – three in the South Island and two in the North Island. The centres were selected on the basis that they evidenced good quality early childhood environments and teaching practices.[2] Once the centres had been selected, the children were then chosen by their birth dates. In this way, we had a group of children who were approximately the same age, and who would be entering school around the same time, and it gave us a sample of children who had clear selection criteria. As a research team we developed a variety of methods which have been explained in depth elsewhere (see Smith et al, 2005). We observed the children at their early childhood centres for periods of between four and six hours over two observational periods, at least six months apart. Each case study child wore remote microphones over these observational times, and we took digital photos, in addition to our written observations, which we used to talk with the children. We interviewed the teachers and the children's parents. We collated copies of the documentation kept by the staff at each child's early childhood centre, which included the children's learning profiles and their artwork.

Once the children began primary school, we undertook the third and final set of observations. We found it interesting in this study that the children did not often attend the same schools. The South Island team followed their children to 12 schools and the North Island team followed their children to nine schools from the two centres. The research methods in the primary schools were slightly modified to accommodate the changed context, so while some of the children wore remote microphones, in several of the classrooms a portable tape recorder was placed on the tables. The other methods, however, were the same, with observational records, digital photos and interviews with the children, parents and teachers. As a research team we have a large amount of 'thick' ethnographic data on each of our 27 children.

Theoretical Positions of this Study

In our work with dispositions, the team has taken a sociocultural approach to learning dispositions. This is a very different way of looking at dispositions from a psychological approach, which considers dispositions to be genetically coded or imprinted. We have also taken a different frame from the common-sense, or usual, way of thinking about a 'disposition', for example, 'he's got a lazy disposition' or 'she's got a generous disposition'.

Using a sociocultural lens, learning dispositions can be described rather as 'attunement to [the] constraints and affordances' (Carr, 2001) in any given setting and can be seen to have three main components: ability, inclination and sensitivity to occasion (Perkins et al, 1993). Furthermore, dispositions can be seen to 'reside in the reciprocal and responsive relationships between children and other people, places and things, or in participation in activities of various kinds' (Carr, 2004).

Margaret Carr has discussed how learning dispositions are both shaped by and also shape the interactions that children have with others – people, places and things. So, while learning dispositions have been defined as learning (or 'coping') strategies that have become habits of mind (Katz, 1993), this definition has been extended to include the nature of children's interactions with people, places and things (Carr, 2000, 2001, 2002). In this way, we have become interested in 'descriptions of the ways in which learning dispositions notice, take up, modify, and are modified by affordances and constraints across learning environments and activities' (Carr, 2004, p. 6). This approach to the study of disposition reflects an ongoing change in early childhood research and teaching practices, which have moved towards a sociocultural approach.

With the socio-cultural approach, researchers ask how individuals' understanding and roles transform in their participation in socio-cultural activities and how people relate participation in one activity to another. (Rogoff, 1998, p. 692)

Within a sociocultural framework, learning dispositions can also be viewed as 'participation repertoires' (Carr, 2001), and there are a number of authors discussing various aspects or views of participation and identity within sociocultural literature. Work by Dorothy Holland (1998), King Beach (2003) and Barbara Rogoff (2003) has helped to inform our thinking. However, it is Etienne

Wenger's writing about 'identity in terms of belonging to communities of practice' (Wenger, 1998, p. 173) that has provided the next part of the framework. He suggests there are three modes of belonging that are important for learning and identity. He calls these 'engagement', 'alignment' and 'imagination'.

Following a process of 'toing and froing' between the literature and our data (Bloomer & Hodgkinson, 2000, p. 586), three modes of belonging – privileging, engagement and connection – and three domains of learning dispositions – resilience, reciprocity and imagination – have been foregrounded in this study (see Figure 1). Together these learning dispositions can be seen to form aspects of the child's learning identity that travel with the child from setting to setting, transforming, and in turn being transformed by, interactions with activities and relationships in each setting.

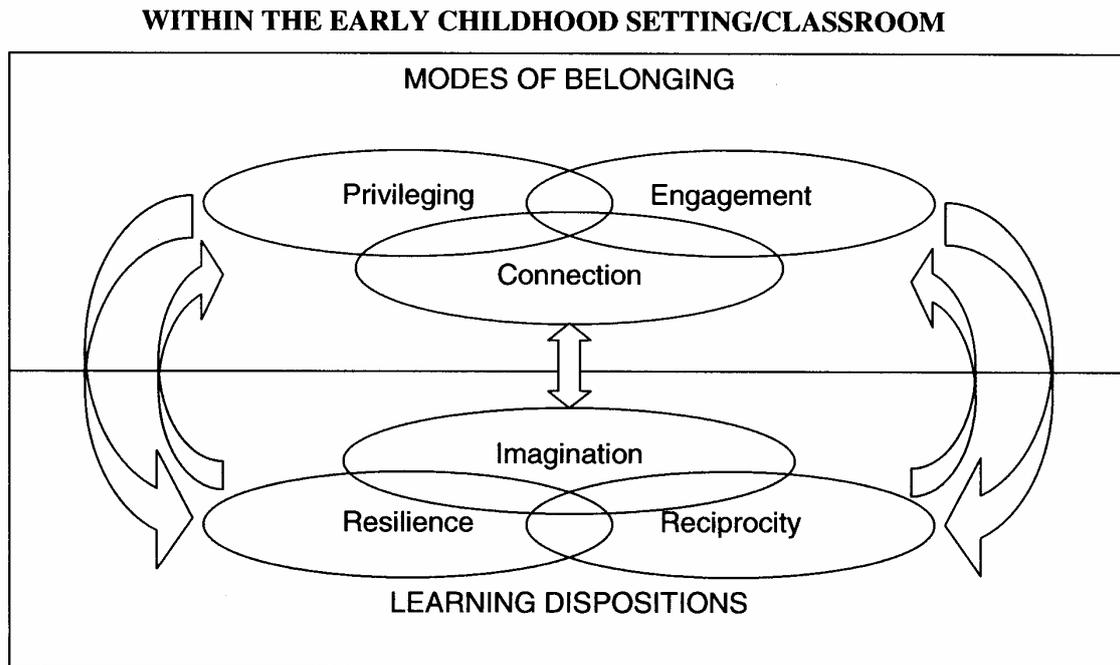


Figure 1. An emerging framework.

We are beginning to explore these ideas in our study and this is work in progress. As working ideas we have used engagement to describe the active processes involved in the negotiations of meanings in that environment; privileging to mean those processes which position children as competent and powerful, or not; and connection to mean those processes that connect the early childhood centre and/or school to the wider society and cultural contexts of the world of the child. This article focuses in on one aspect of the framework, 'engagement', in order to discuss the learning architecture that supports, or does not support, our identified learning dispositions.[3]

In Wenger's (1998) discussion of 'communities of practice', he identifies essential components necessary for engagement to occur in a community (pp. 74-76, 174-184, 237-238). Our research has identified a number of aspects of educational contexts that, we argue, would support mutual engagement and relationships:

- time for interaction – mutual access by participants;
- joint tasks and activities – negotiable enterprises with common meaning;
- opportunities for peripheral participation and multiple entry points;
- tools and artefacts that support communicative competence;
- information and documentation that support the learner in reciprocal relationships and make the tools for this competence transparent;
- distributed expertise.

The following are examples from two of our case study children (James and David) to illustrate these ideas.[4]

The Case Studies

Example One: James

James, in his early childhood centre observational phases (Phases One and Two), attended a full-time early childhood centre. The centre was part of a larger early childhood complex and was licensed for 25 children, which meant that no more than 25 children could attend at any one time. The majority of the children attending the centre attended for six to eight hours every day of the week for the bulk of the year, which created a very stable group of children. James was eager to be involved and play alongside and with other children. Over Phases One and Two, James was observed regularly seeking out children to 'play' with, and attempting to join in existing games with children. James's own ability to be deeply engaged in an activity was dependent on whether this was something he *liked* to do (and *did* regularly, such as the computer games), whether he had *chosen* to do this rather than it being a default activity because he had been rejected by another child or children at an activity, and how *often he was interrupted*. This interruption of activity, rejection from an activity, and break in focus was particularly pronounced in both Phases One and Three for James.

In Phase One in the early childhood centre, in an effort to address parental concerns for extension activities for the four year olds, the teachers held a 'big group' time for the four year olds each morning in one of the playrooms in the centre. After morning tea until lunchtime, the group of 8 four year olds would be placed in this room with a variety of activities, which changed nearly every day, and one staff member (who would change in the middle of the session for staff breaks). Throughout the observations, James found this time particularly difficult to establish relationships in, or maintain sustained interaction with either the tools or children (mutual engagement). The size of the room, the limited number of activities available and the constraints on the time of day, combined with the length of time that James was required to stay in or leave the room, constructed a learning architecture which afforded limited opportunities for engagement. This was despite a number of attempts by James to interact with others in the room.

A typical example: Monday morning, 11 a.m. to 12.30 p.m. The eight children are in the playroom that has been set aside for the four year olds and the door is closed so that children cannot come in and none of the children inside the room can leave. The teacher begins the time by writing a list of activities that the children suggest they would like to do for the morning before she selects what is placed on tabletops for the children to use. James is watching carefully as the teacher writes. 'How about?', he calls out, but is not heard. The teacher directs the children to the two activities that have been placed out while she moves off to gather two more that have been suggested. James watches carefully as the children move to the activities and then he chooses to go and blow bubbles in one of the containers on the table that has six containers set out (full of coloured water with bubbles added and a straw for blowing). The teacher moves over to the bubbles, demonstrating how the activity works.

James: Can I see? [Trying to see through the children already gathered around the teacher]

Over the next *nine minutes* James blows bubbles and talks with two other children who remain at the activity for a similar length of time. Over this time he also calls to the teacher four times for help to do a print of his bubble (placing a piece of paper over the top of the container which prints the bubble onto the paper). At no time is he responded to as the teacher moves between the children and the activities around the room. After *ten minutes* James moves into the book corner of the room where a table has been set up with a pottery tea set. He is alone at this activity as the rest of the children are either at the bubbles or in a dramatic play game with blankets on a couch. Over the *two minutes* he is there he pours the water from the jug into a chocolate container on the table. As the jug runs out he fills it from the larger water container left in the area and then tips all the water out into the saucers, picks up a cup and pretends to have a drink. He repeats these actions then he looks around the room and moves to a side area of the room where two children are

playing 'hospitals'. James tries to negotiate to join in the play. He pretends that he has gone blind: 'Look at me I can't see.' Neither girl pays any attention. James tries again and reaching for a small doll he begins to walk it around the girls, and talks in a 'pretend voice' as if the doll is speaking. This gets some attention – the doll is immediately removed by one of the girls.

James: Hey, that's mine.

James waits (for the return of the doll) but when nothing happens, he reaches over and removes a different doll that the girls are using. He is directed by the teacher (who notices James's action) to return the doll. He immediately moves away from the activity and 'floats' over to the bubbles again after only *four minutes* attempting to play.

This pattern continues for the rest of the session: James spending *three minutes* at the bubbles again, followed by another attempt at playing with the girls in the hospital play for *four minutes*; sitting observing the other children play for *eight minutes*, then *ten minutes* under the blanket waiting for some children to join him in a game, followed by a short dramatic play game with other children present for *five minutes* before the teacher calls for tidy-up and then to lunch.

This example was repeated over the days that we observed James in Phase One. The limited range of activities in the small space and the age-specific grouping of children (only the four year olds) worked against James being able to engage in activities which were of *interest* to him, to *sustain his engagement* and for *mutual engagement* with other children. Turn-taking to ensure that all children could proceed through the limited activities led to interruption and distraction, and being moved on from an activity whether finished or not. Overall, James's activity in this 'big group time' was actually spent predominately in either moving from activity to activity, watching or waiting for his turn, trying to gain attention from either the teacher or other children, or gazing out of the window at the outside environment. The architecture within this setting worked against supporting meaningful or mutual engagement for James.

In Phase Three, James's transition to school coincided with his relocation with his mother to a different South Island town (799km away from his early childhood centre). The school he attended was a large school with both composite (children of different ages) and age-segregated classes (for example, all five-year-olds together or all 10 year olds together). When James was observed for his school phase (in a composite class of five to eight year olds), James was one of only 6 five-year-olds in the class, while the rest were seven- to eight-year-old children. In discussing why the group was composed of this collection of children, the principal said that it was a combination of school policy for preferring composite classes and parental request over which teacher was preferred for individual children.

However, James's participation in a composite class structured his time and engagement with children and activities in a programmed but interrupted fashion. Due to the age range of this class, James and his fellow five-year-olds joined the other class of five-year-olds (Years 1-2) in the school for level-appropriate activities, such as reading, mathematics and physical education. These activities were at times which fitted with the other five-year-olds' programme from the other classroom, but this cut across the activities in James's home room. The field note observations from this phase demonstrate how James and the other five-year-olds in his home room were often unable to finish tasks in their home room or, after having joined in with the other five-year-olds in an activity, would then return in the middle or close to the end of other tasks in their home room. This interruption of time programming cut across relationships not only in James's home room, but also with the children in the alternate five-year-olds' room. What became apparent was that James's relationships concentrated around one other child who was also a five-year-old in his home room, who shared the same structured time and work arrangements as James. Similarly, as evidenced by his workbooks at school, James was also not regularly meaningfully engaged in his tasks, with most tasks in his books barely begun or not completed.

James's mother identified that he had found the transition both to school and into a school where he did not know anyone quite difficult. She also felt that James was easily distracted and identified that the position of his desk in class – right in front of the teacher's desk – may have been an indication that the teacher thought so too. She also identified that James was concerned that he seemed always to be the last to finish his work:

Well, he says that he's always the last to finish his work, you know, if he's drawing a picture or writing or things like that, he always seems to be one of the last ones to finish. And when he showed me where he's sitting now in the class, which is right in front of Mrs [teacher's name] too, so I'm thinking that maybe he's easily distracted possibly.

While distraction and inattention may indeed have been an issue, the fact that James's day was interrupted by having to fit within two competing timetables each day would also contribute to his inability to get tasks finished on time. Also, the time set for a task invariably was set for the older children, and while the teacher gave attention to the younger children, there was often a sense of 'rushing' to get tasks completed.

However, James's teacher felt that he was doing fairly well in the class and just needed to work on his listening skills, although she reflected that her style of instruction might need some modification with a class of such a range of ages. She spoke very positively about James:

I was looking at his relationships, but you know, like he's fine, he's attentive when I'm talking to him and he certainly does his best to follow instructions. He seems to be relating pretty well with the children in his group and willing to, you know, cooperate if they're doing cooperative tasks.

His teacher was also aware that being in a room with the 'big kids' and having different teachers and different routines was a challenge for a five-year-old:

Teacher: He's confident enough to go up and say, 'Excuse me, can I do something?' or 'This person is doing that and I don't want it' or 'I can't undo this' or, you know, he'll ask other people, 'Can you do my shoes up?' and things. Yes. So he's quite happy to talk to teachers.

Interviewer: Right. And he's been quite happy about going to different teachers for different activities?

Teacher: Hmm. That's not – that's not bothered him at all. And that's pretty good too for, you know, that's quite a mature skill for a kid that's only been at school for a little while with just me for six months, then to pop him over here and say, 'Go to this room for that', and, 'Go to PUMP [5] with a different teacher', and, you know, do things like that. So, yeah, he copes with all that quite well really.

Interviewer: Hmm, 'cause it is kind of big kid stuff.

Teacher: It is quite big kid stuff. Yeah. Well, when you're in the big kids' room you have to do big kid stuff, don't you?

Summary. For James, both the centre and school, in terms of the allocation and shaping of *time*, impacted greatly on his ability to participate in meaningful and mutual engagement, and provided him with very different positions from the examples provided below for David. In Phase One, the structural time set aside for play and interaction with the 'big kids' cut across James's abilities to establish and maintain meaningful interactions with people, places or things. In Phase Three, in the school setting, the amount of time allocation differences between his home room and the other class, which he participated in for key academic tasks, structured his day in a way that once again made any sustained engagement difficult for him, in terms of people, places and things. James's positioning can be seen as one on the edge, or periphery of, the social life of these educational environments. James's experiences indicated that he was not being supported by his educational contexts to be a reciprocal member of a community of learners. The criteria for this membership included:

- *Time for interaction – mutual access by participants.* The way that both the early childhood centre and the school had structured the time of activities and experiences for James presented structural obstacles to James engaging in a meaningful way with either the people, places or things in his learning environments.
- *Joint tasks and activities – negotiable enterprises with common meaning.* James was observed trying to establish and maintain relationships with his peers and teachers. However, the time limitations and interruptions to James's experiences due to routines, separate group times for the different ages, and school age-level activities which moved James around the school presented James with a lack of opportunities for joint and shared tasks or a continuity of experiences and relationships.

- *Opportunities for peripheral participation and multiple entry points.* James was regularly entering different groups and sessions and experiences, but was often positioned as the child on the periphery rather than engaged in the centre of the activities.
- *Tools and artefacts that support communicative competence.* James was offered a multitude of tools and resources, rich in collaborative possibilities, at both the early childhood centre and the school. It is only when the aspect of 'time' is considered for James that his interactions with people, places and things were found to have been structured in a way which afforded him less opportunity to engage meaningfully.

Example Two: David

David attended his early childhood centre one day a week. He had been going to the early childhood centre for two to three years on a part-time basis. The centre was licensed for 25 children aged two and a half and over, and children attended on either a full-time or part-time basis. Many of the children had attended another centre close by since they were babies and there was a close connection between the two centres. David had originally attended the centre two days a week, from the time he was about three years old.

The following episode illustrates the possibilities for engagement for David in Phase One. A house was being built a few doors down from the centre and, on this particular morning, a concrete mixer had arrived to pour the floor. The building process had been watched very closely by the children at the centre over a number of weeks and so very quickly the decision was made to all go down and have a closer look – but not too close – at what was happening. David was very interested in the concrete mixing (unlike some of the children, who were more interested in the Portaloo – as the field observation notes recorded). He described to the teacher the use of 'cement' and water in the making of concrete and demonstrated prior knowledge of the whole process.

Back at the centre, David says to his friend, 'I'm going to start making concrete. Do you want to help me start making concrete?' His friend agrees and they run off to the sandpit. David obviously has a very clear objective in mind as he starts to dig a hole and then look around for some water. He says:

You go and get the normal buckets and I'll pour it in then I'll come back over. I'm making concrete. Could you get me water, could you get me water please? Could you get me water because I need to, I'm going to make concrete. Get me water.

The teacher helps them organize the water and then move things around in the sandpit to give them more room. Over the next few minutes more children start to join in the activity and soon concrete making takes over the whole sandpit.

During all the digging and mixing with water, another child makes a suggestion which David responds to immediately and which is followed up on by the teacher. The following is an example of this reciprocity:

Child 1: You need some flour, but not real flour. [*Imitates, offers expertise*]

David: Just pretend flour. [*Agrees*]

Teacher: Pretend flour, what do you think the pretend flour would do? [*Extends*]

David: Just make different colour. [*Responds*]

Teacher: Oh, we could add some flour and see what happens to your texture, couldn't we? Should I get some? [*Offers to help*]

David: Then get some, get some flour. Look out, I've got a mixture [*as another child blunders into his hole*]. [*Instructs, protects the task/agenda*]

Child 1: We're going right down to the bottom, eh? [*Seeks clarification*]

David: No, I'm not. We need just concrete mixture and don't put sand in the concrete mixture. [*Adds expertise, clarifies the task – not digging a hole – and protects the task/agenda*]

Child 1: Na. [*Agrees*]

David: She's going to get some concrete flour, I think. It's going to be fine, we don't need to dig. We don't need to dig. [*Reminds, reassures, instructs*]

At this stage the field observation notes read: 'David is putting everything into mixing his concrete, he is using his whole body to mix it. His technique looks like he has watched/done this before.'

When the researchers visited his family shortly after, we found that he had indeed helped his father make concrete to build a wall. This was a negotiable enterprise with a common meaning. The meaning had been established by the visit, but David had further information. There was also distributed expertise.

This was a very 'dense' episode in that there was a lot going on for David and the other children. The other children perceived him as the 'expert' in concrete making, and the teacher encouraged this, but he also yielded some of the expertise to others. Children were told to ask David how to mix concrete. David directed the whole operation. He decided that a pipe was needed to stand up in the concrete and the teacher sent him off to have a hunt around to find what sort of pipe he wanted. He came back with some plumbing pipe about five feet long and wanted to stand this up in his concrete. It took a lot of negotiation with the other children for this to happen as by now the sandpit was full of children making concrete. By the time he finally felt the need to go in for morning tea, he had spent nearly an hour of focused time and energy on his concrete making.

Phase Three. A second episode for David was one that occurred in his new entrant classroom. The observation occurred in the second half of the year, and the older children in the new entrant classroom had been moved up into a new entrant/Year 1 class. Being one of the youngest of the original new entrants, David remained in the new entrant classroom with the teacher he knew and became one of the 'old hands', with new children joining the classroom on a regular basis. At the time of the observation there were 14 children in the classroom.

The time is 9.45 a.m. and the children have just finished an activity on the mat with the teacher. It is time for story writing. The class has been discussing the sun and moon, and the teacher suggests they might like to write a story about that. She starts to go over the story-writing routines to remind them all of what she would like them to do. David pipes up: 'I probably won't need any help today.' The teacher replies: 'Oh, wow! You're going to write on your own! Fantastic.' David adds: 'If I need a little bit of help, I'll put my hand up.'

They collect their story-writing books and go off to their places to write their stories. David draws his picture – it is of a motorboat with a propeller on the back – and he has drawn himself sitting in the boat. At the same time, there is a lot of conversation going on around him about letters of the alphabet. There are letters hanging up all around the classroom and the children are learning special names for all the letters such as Munching Mike and Naughty Nick, and are using the letter charts as references throughout the story-writing activity. There is constant discussion about the letters as they write. The teacher tells him she will come and help him to write his story shortly, but David replies: 'I've got my own writing.' He checks with the teacher aide as to where he is supposed to start his writing and then he starts off writing it all by himself. He concentrates so hard on his work that he stands up as he writes! When he has finished he jumps up: 'I spelt some. Look! [teacher's name].' The teacher replies:

David, my goodness! You're a cool writer. Look at all these lovely words! 'I went on a boat' – I see. Excellent! I'm going to write down here, 'You are a very clever writer.' Did you enjoy the boat ride?

David goes off looking pleased and the teacher tells the researcher that that was the first time he had attempted to write a story all by himself. Usually he would wait for her to help him: 'That's why I [the teacher] didn't write it again underneath.' [Teacher] also makes no comment, to David or the researcher, about the fact he has not written about the sun and the moon. David shows his writing, with great pride, to another teacher who has come into the classroom, who congratulates him on his work and then suggests he might like to show it to the school caretaker, who is working just outside the classroom. David holds it up to the window to show him. The school caretaker gives him a big smile and the thumbs up. David marches off with a HUGE grin on his face.

Summary. Using the idea of modes of belonging as an analytical tool arising from the theoretical framework outlined above, it becomes possible to clearly identify how the learning architecture in these situations supported David's engagement in these two, quite different, communities of learners:

- *Time for interaction – mutual access by participants.* Although David was asked to participate in the mat-time activities at the early childhood setting, as soon as the formalities were over the children were invited to decide for themselves if they wanted to stay or do other things. Thus, David was not kept from his desired objective – mixing concrete – for a long period of time. At school, the repetition of routines helped David to come to understand what was required.
- *Joint tasks and activities – negotiable enterprises with common meaning.* Throughout the concrete-mixing episode, David interacted closely with the other children and adults. The teacher supported the children in their negotiations with each other in sharing the resources and ideas. Ideas expressed by other children were listened to and taken up. In the new entrant classroom, all the children were involved in the same activity. Ideas and knowledge were shared, as in the discussion of the letters. However, when David wanted to write about boats rather than the sun and moon, this was accepted and encouraged.
- *Opportunities for peripheral participation and multiple entry points.* Children came and went throughout the whole sandpit activity. Some did work, literally, on the edge of the activity; others were attracted by the action but then played their own games in the water trough that was being used. If others wanted to join in but were unsure of what to do, they were invited to ask David to help, and he did so very willingly. In the story-writing activity, David had participated over the previous weeks more on the periphery, waiting for the teacher to come and help him and unsure of how to proceed. It was very obvious that as soon as the teacher announced story-writing time, David decided that that was the day he would engage independently with the task. The teacher had scaffolded his work over previous story-writing episodes until now he was confident to try it on his own, and the teacher supported his attempts.
- *Tools and artefacts that support communicative competence.* In the early childhood setting, there was a big sandpit with a multitude of containers, shovels, tubing, pipes and water troughs – enough for everyone to have a turn. Again, negotiations with turn taking were necessary, and the teacher modelled and suggested strategies for the children to use in order to achieve this. In the school setting, story writing in itself as an activity supported the children in learning to express their ideas and thinking, and, again, David was supported in his choice of story topic. Information and documentation supported the learner in reciprocal relationships and made the tools for this competence transparent. There were story-writing books, where the children could revisit earlier attempts and ideas, and see the improvements they had made along the way, and supportive comments written by the teacher in the books. What was important to the teacher in this episode was that David had moved to being more independent in his writing and she acknowledged this by not writing his story out again for him underneath his own writing. She let his work stand by itself.

Through the success of his engagement in episodes such as these, David could be seen to be strengthening his dispositions of reciprocity, expecting tasks to be mutually meaningful to participants, and moving from the periphery to the centre of deep engagement.

Conclusion

In terms of participation, engagement requires access to and interaction with other participants in the course of their own engagement. (Wenger, 1998, p. 184)

In conclusion, we would like to briefly return to Wenger's points about engagement. He suggests that 'the work of engagement is basically the work of forming communities of practice' (Wenger, 1998, p. 184). This suggests that engagement is a two-way process. Children enter a community of practice, such as the early childhood centre or the new entrant classroom, and through their engagement in the various activities, with the people in the setting, and using the tools and resources available to them, they come to belong to that community of learners. The learning architecture of the educational setting can work either to support or inhibit this.

In the examples we have discussed, the opportunities to engage in shared activities with common meanings have been interpreted as a key to David's capacity to develop an expectation of reciprocity (a learning disposition). Other children and adults were also engaged in the concrete mixing and the story writing. Access to their ideas and knowledge and experiences (distributed expertise) enhanced David's experience of these activities, making them more meaningful.

However, for James, while the adults in his environments were supportive and interactive with James, the structural time arrangements cut across his opportunities for meaningful engagement in the places, people or things within his learning environments.

This article has demonstrated examples of opportunities for one of the 'modes of belonging' – in this case 'engagement' – in and across educational settings. The research has assisted us to recognize some of the features of facilitating engagement and to observe the impact that this has had on children's learning dispositions. The themes in our examples for facilitating meaningful engagement are: time for sustained interactions and the development of relationships; joint tasks with a common meaning; opportunities for peripheral participation, which develops into more central involvement; and distributed expertise. These appeared to be common across the different environments of home, early childhood and primary school settings, and are closely linked with the development of learning dispositions over the child's learning identity.

Notes

- [1] The research team for this project is: Anne B. Smith, Margaret Carr, Judith Duncan, Carolyn Jones, Wendy Lee and Kate Marshall.
- [2] For a full list of the criteria for centre selection, see Duncan (2005) and Smith et al (2005).
- [3] An important point we wish to emphasise is that in the process of separating out individual children and individual parts of our framework for illustration, we run the risk of presenting ideas in isolation. What has become exceedingly apparent is that it is very difficult to separate out either the three dispositions or the modes of identity and disposition construction. However, we have endeavoured to separate out components for this discussion so as to be able to explore the implications of these for the children in the study. At all times we are mindful that they are interactive with the other dispositions and other components within the learning architecture.
- [4] These names are pseudonyms chosen by the children and their parents.
- [5] PUMP is the acronym for a physical education programme for beginning readers and writers.

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