Learning in the Making
Disposition and Design in Early Education
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Foreword by Jacqueline Goodnow

‘Learning in the Making’ integrates theoretical ideas, research findings, and richly detailed episodes of learning to chart the development of learner identities in the early years. Learning dispositions are the central theme. The book traces the progression of learning dispositions for fourteen young children from early childhood centres into the first year of school.

To quote the Foreword by Jacqueline Goodnow: this book “is a rare example of work that has two firm bases. One is in the conceptual analyses of learning. The other is in what one learns from the longitudinal following of individual children and particular aspects of change.”

A theoretical discussion early in the book defines a learning disposition, and argues for three key learning dispositions: reciprocity, resilience and imagination. The fourteen case studies provide verbs for these three learning dispositions: suggesting what young children are doing when they are learning to: live together, take some authority in their lives, and imagine alternatives.

Jacqueline Goodnow also comments: “One of the major steps that this book makes consists of translating these nouns into verbs. With that translation, one can pin down what children do that indicates moves towards reciprocity, resilience, or imagination. And we can begin to see – by way of those specific activities – what we ourselves can do or can foster”.

Learning in the making, it is argued, is sited in the relationship between disposition and design. The book describes six ‘transactional and progressive’ processes that are at work in this relationship, with implications for the design of educational environments, for policy, for professional development, and for teacher education.

This book was written for teachers, practitioners, families, tertiary educators, and academics working in early education. However a wider audience will be interested in the analysis of where and how children develop a ‘critical edge’ in relation to their learning and their learning opportunities – Learning in the Making.

Another quote from the Foreword by Jacqueline Goodnow:

“It is a rare experience to find a book that moves us forward on three fronts: theories, research methods, and links to policy and practice. This book does so.”
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ABOUT THE AUTHORS

**Margaret Carr** is a Professor of Education at the University of Waikato, New Zealand. She was one of the co-Directors of a curriculum development project that developed Te Whāriki, the national early childhood curriculum in New Zealand, and her academic career has continued to focus on curriculum in action: especially pedagogy and assessment practices in early childhood and the early years of school. She has written a book on Learning Stories as a narrative mode of assessment, and her research has included being a research associate for projects where the teachers are researching their own practice; recent completed projects include: ICT in early childhood, transition to school, question-asking and question-posing, and key learning competencies across place and time. She was a co-Director, with Anne Smith, of the Dispositions in Social Context project that forms the basis for the fourteen case studies in this book.

**Anne Smith** is an Emeritus Professor at the University of Otago, New Zealand. She returned from Alberta, Canada where she did her PhD in Educational Psychology in 1974, to a position in the Education Department at Otago University. She was the first Director of the Children’s Issues Centre, from 1995 until 2006. During her tenure as director, the centre carried out applied research related to children’s well being and rights – for example in families after parental separation, and in early childhood centres and schools. In her role as director, Anne initiated many advocacy and outreach education activities to disseminate research to professionals working with children, and to impact on policy and practice. Her books include *Understanding Children’s Development*; and (with colleagues) *Children’s Voices, Research, Policy and Practice*; and *What does it mean for children to be citizens? International perspectives*. Anne continues to work on research in the field of Childhood Studies.

**Judith Duncan** is an Associate Professor in Education, School of Māori, Social and Cultural Studies at the University of Canterbury College of Education, Christchurch, New Zealand. When this study was carried out Judith was employed at the Children’s Issues Centre, University of Otago, New Zealand, where for 9 years she researched and taught in the area of early childhood education and children’s participation. Judith is an established researcher with over 15 years of research experience, predominantly using qualitative research methods in a range of education settings. Her research and teaching interests include early childhood education, children’s voices, gender and education, and education policy and practice. Since her doctoral studies, which examined teachers’ perspectives of education reforms in the kindergarten sector, she has been involved in a range of projects that examine early childhood from multiple and interdisciplinary perspectives, placing central to each research project the perspectives of children and their families.
Carolyn Jones is the Research Manager at the Wilf Malcolm Institute of Educational Research at the School of Education, University of Waikato, New Zealand. Her particular research interests are in early childhood education, transition to school and the involvement of the families in education. In 2009 she co-authored a series of 20 booklets in a professional development resource for teachers: Kei Tua o te Pae Assessment for Learning Early Childhood Exemplars. Currently, her work as Research Manager involves working with staff across a wide range of contexts within education, assisting them with the design and implementation of research projects, and developing both a deeper and a broader knowledge of a variety of education research approaches.

Wendy Lee is the Project Director of the Educational Leadership Project which provides professional development for early childhood teachers in New Zealand and contributes to the teacher education programme at the University of Waikato. She has been a co-researcher with Margaret Carr on two ‘Centres of Innovation’ action research projects, investigating the role of ICT in pedagogy and practice in the early years, and question-asking and question-exploring by children in the early years. Between 2001 and 2007, she co-directed the ECE Assessment and Learning Early Childhood Exemplar Project with Margaret Carr. In 2008 and 2009, she and Margaret also worked together on a research project entitled Learning Wisdom. Working with teachers from nine early childhood centres, they explored dialogue between teachers and children using Learning Stories as a catalyst. Wendy is a passionate advocate for ECE and has a strong commitment to strengthening the leadership capacity of the ECE sector.

Kate Marshall was an early childhood teacher before she took up a research position at the Children’s Issues Centre at the University of Otago, New Zealand. Through her work in early childhood centres in Wellington, Palmerston North, and Dunedin, she has had considerable experience of working with young children and families. Kate has been engaged in a range of research projects focusing on family discipline, children’s participation in community decision-making, the place and meaning of health in young people’s lives and, the contribution of Playcentre to building social capital. Involvement in the research that contributes to this book represents the culmination of a passion for research and practices that value the experience and voices of children. She has completed a Bachelor of Arts, a Bachelor of Design (interiors), a Master of Education (Counselling) and is currently juggling interior design projects with qualitative research at Dunedin’s School of Medicine. As an educator, researcher, parent and grandparent, she draws on both personal and professional expertise and interest in her contribution to this book.
ACKNOWLEDGEMENTS

The authors are grateful to the Marsden Grant fund, administered by the Royal Society of New Zealand, which allowed this research to be carried out. We would also like to thank the children, parents, extended families, early childhood teachers and primary school teachers who participated in the research, for the privilege and pleasure of talking to them, observing them and writing about them. Their stories of ‘learning in the making’ have fascinated and delighted us. We hope that we have conveyed some of the richness of their stories for the readers of this book.
It is a rare experience to find a book that moves us forward on three fronts: theories, research methods, and links to policy and practice. This book does so.

The questions tackled are major. What do we – as children or as adults – learn in the course of various kinds of experience? How does learning take place? How can we encourage effective and rewarding learning?

The focus is on the years usually covered by “early education”. These are times when children are in day care centres and kindergarten, often tagged as “pre-school” contexts. These are important times. This is when we acquire what this book calls “learning identity”: an identity that includes views of ourselves as learners, approaches to learning, and decisions about the best courses to take. Shall we, for example, turn in a safe performance, take up a challenge and risk failure, ask questions and look for alternatives or just go along with what others suggest, see ourselves as competent, perhaps one of those “at the top” or as always a good second, perhaps even always an “also-ran”? “Learning identity”, the book reminds us, is not fixed. It is, however, often acquired early and carried forward: one aspect – to take part of the book’s title – to “learning in the making”.

Offered, however, are insights that apply throughout life. These years are a kind of spotlight or test case for our understanding of learning through years of schooling and outside school. Here is a time marked by a first transition to formal learning. Here is also a time of rapid changes that enable us to track the kinds of change that occur and the way those are shaped by what children bring into this learning situation and what they encounter. That makes all the more appropriate and rewarding, the longitudinal accounts of changes and encounters for a varied group of children that are a major part of this book.

That broad relevance was one of the reasons for my enthusiastic reading. I found it also a refreshing break from some often restrictive but popular views of early education and of school learning. Here was a different view of what learning covers, and of how it takes place: part of a shift that others are also making but also expanding on what they have offered.

Rewarding, to start with, are the approaches to the question: What does “learning” cover? We are in the midst of emphases on the need for a “skills-centred” approach to early education. Our society, it is often said, needs citizens with particular kinds of competence: “literacy” and “numeracy” especially. Schools are where these kinds of competence are acquired, and those kinds of competence are all that schools should aim for.

“Learning”, however, covers far more than those kinds of competence. Schools need to aim at more than this important but narrow range. And schools do in fact have an effect on more than these kinds of competence. Here, to repeat a phrase
used earlier, is where we acquire major parts of our “learning identity”. Here is where—to take some phrases cited from Vivian Paley’s work—we learn a great deal about “reading the environment” and take major steps toward being able to step into “the mental shoes of others”: critical skills for any life with others or any progress in understanding the work of others that are a constant part of schooling.

Ability and knowledge, the book points out, are an essential part of learning. But they are not a sufficient account of what happens or of what we should aim for. We can, to borrow from some other analyses of learning, end with children who are “able” in school terms and are physically present but have no sense of “engagement” with what is happening in class or with any “learning” situation.

Out of these broader concerns with learning, there has emerged an emphasis on the importance of children acquiring some particular characteristics, often with the names “reciprocity”, “resilience” and “imagination”. One of the major steps that this book makes consists of translating these nouns into verbs. With that translation, one can pin down what these terms mean. We can begin to see what children do that indicates moves toward reciprocity, resilience, or imagination, And we can begin to see—by way of those specific activities—what we ourselves can do or can foster.

To take one example, “reciprocity” is turned into “establishing a dialogue” and “being and becoming a group member”. “Resilience” becomes “initiating and orchestrating projects” and “asking questions”, “Imagination” becomes “exploring possible worlds” and “storying selves” (e.g., stories of who one is and might become).

Charting what children and teachers do along those specific lines, and how children change in what they do, then becomes the major target not only conceptually but also in practice. Charting the nature of those activities, the changes that occur in them, and the ways in which the contexts they encounter encourage or constrain them, is the task at the centre of the book’s six research chapters. They are highly informative. They also offer clear examples of what we may all begin to notice and to aim for in our interactions with children.

Rewarding also are the approaches taken to the question: How does learning take place? Some of the approaches taken have already been signalled in my comments on what learning covers. A first added feature, however, is the shift away from regarding children as solitary learners, with all the relevant changes occurring in their minds. The book offers an informative account of several shifts from this view of children, or of learners at any age. Learning takes place, we are reminded, in the course of social relationships and social interactions, both with teachers and with peers. Critical in those interactions is the establishment of a sense of shared goals, shared meanings, shared attention, and a sense of really “working together”: a further part of what is covered by the book’s phrase “learning in the making”. Offered here is not only a review of those conceptual positions, but an expansion on them and wonderfully explicit examples of what they mean in practice and how they might be encouraged.

Learning always takes place, to take another feature of the book’s approach to how learning takes place, within contexts. Those contexts may be of several kinds, and pinning down how they vary has become a strong line of interest in analyses of
development. Highlighted by the book, and again added to, are the ways in which various contexts restrict or open up what is possible. Highlighted also are contexts often forgotten: the worlds outside classrooms: playgrounds and home. I liked especially the emphasis on home and community as containing “funds of knowledge” that schools may tap into and use as a building base and as prime sources for the kinds of “learning identities” we develop. In a world increasingly marked by cultural diversity and population flow, the book reminds us, we need to recognise and to build on the way parents especially perceive their children’s needs and abilities, and the work of teachers and schools, and to be alert for changes in those views as well as changes in children.

One last comment on why I hold such a positive view of this book. It is a rare example of work that has two firm bases. One is in the conceptual analyses of learning. The other is in what one learns from the longitudinal following of individual children and particular aspects of change. The two bases are well described in themselves. They are also well integrated. Here then is an unusually rewarding volume for those interested in one or other of the two bases, for those who ask how they can be brought together, and for those who ask about the implications of both for how we might “design” early education.

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May 2009
I soon discovered that whoever forays into this exciting territory dooms herself to an uneasy life. The first predicament of the student of human development is her being torn between two conflicting wishes: the wish to be scientific, whatever this word means to her, and the desire to capture the gist of those phenomena that are unique to humans. (Sfard, 2008, p. xiv)

This book is about one aspect of human development. It considers the relationship between learning and educational environments for fourteen children over eighteen months of their early education. The learning that is emphasised is what we have called learning disposition and the educational environments that we have emphasised form the educational design that was the reciprocal and responsive partner in the formation and transformation of learning dispositions and learning identities. To tell our versions of these children’s journeys we have zoomed in on learning episodes in educational settings, and zoomed out on our understanding of their dispositional learning in the making to suggest connections and continuities. And we have been assisted in this by conversations with the major players in these stories: the children, the teachers, and the families.

Anna Sfard, quoted at the beginning of this chapter, has provided a reminder of the difficulties in embarking on such a project. She adds:

Whenever one of these needs is taken care of, the other one appears to be inherently unsatisfiable. Indeed, across history, the tug-of-war between the two goals, that of scientific reproducibility, rigor, and cumulativeness, on the one hand, and that of doing justice to the complexity of the “uniquely human”, on the other, resulted in the pendulum-like movement between the reductionist and the “gestaltist” poles. (Sfard, 2008, p. xiv)

We knew already, from our previous work, that we were working in a very contested and well-populated field, attempting to do justice to the complexity of the uniquely human, and to present a trustworthy theoretical and empirical account. Our response to Sfard’s pendulum has been: to work in the borderland between paradigms, to build narratives from ‘pieces’, and to argue that the development of learning dispositions is about identity work in an interactional space ‘in the middle’ between individual disposition and curriculum design.

WORKING IN THE BORDERLAND BETWEEN PARADIGMS

The six authors of this book had become interested in the ways that the big ideas of learning disposition are constructed and provide what we might call navigation
tools as children navigate with and around people, places and things over time in early childhood settings, move from home to early childhood centre (and back again), and travel from early childhood centre to school. We come from a number of learning and teaching pathways in order to do this. Anne has had a long-term commitment to identifying and re-cognising spaces for children’s voices and children’s rights; Margaret’s focus has for some time been the exploration of ways in which curriculum, pedagogy and assessment practice can enhance children’s identities as learners; Judith’s interests have included the discourse frames that position children and teachers in inclusive or excluded ways; Carolyn has developed and extended her interest in the opportunities that enhance reciprocal connections between the cultures of home and educational setting; Wendy has been immersed in researching and working towards settings in which teachers and children develop mindsets of agency and resourcefulness; and Kate came to this project with a passion for research and practices that value the experience and voices of children. Our philosophical backgrounds were diverse as well: education and sociocultural geography, psychology and human development, poststructural and critical inquiry, community action and professional development, sociology and demography, and education and counselling. Nevertheless, we came together with a collective experience of researching on, and a common interest in, young children and their learning. We also all brought a common commitment to researching and writing about the design of educational environments that contribute to the development of useful and mindful learning dispositions that concern themselves with ethics of care, competence, connection and critique. We had all worked with – and found them to be fruitful contexts for discussion – episodes or stories of children’s participation in their early childhood or school environments.

Writing about research from a narrative paradigm, Jean Clandinin and Jerry Rosiek (2007) commented that:

As researchers we find ourselves drifting, often profitably, from one paradigm of inquiry into another. We do not cross borders as much as we traverse borderlands… (W)e play with the idea of borderlands, those spaces that exist around borders where one lives with the possibility of multiple plotlines. This way of understanding the spaces around the philosophical borders we have described fits with a view of a landscape that does not have sharp divides that mark where one leaves one way of making sense for another. (Clandinin & Rosiek, pp. 58–59)

There is a sense in which we have worked towards what we might call a critical sociocultural (Lewis, Enciso & Moje, 2007) approach, or a sociocritical stance on the data we have collected with children. We did not begin with a sociocritical frame already worked out, but as we have wrestled together with interpreting the data, we have shaped a methodology that we hope will be interesting for readers. Kris Gutiérrez describes a similar process by the authors of a book entitled ‘Reframing Sociocultural Research on Literacy’. She describes it as anchoring one foot inside a sociocultural frame, while allowing the other foot to move around into other conceptual terrain:
Throughout the set of chapters, the authors draw on a number of theoretical perspectives, largely practice-based views, to extend their own conceptual, methodological, and empirical work. … In an effort to capture the complexity, the multimodality, the spatial, temporal, and cultural dimensions of literacy activity we argued the need for a better way of studying learning environments and individual learning within. As we described it then, a syncretic approach allowed us to anchor one foot firmly in cultural-historical activity theory, while allowing the other foot to move around in principled, deliberate, and strategic ways into other conceptual terrain to help make visible our theoretical and methodological blindspots. (Guttiérrez, 2007, p. 117).

These borderland metaphors describe our process of collaborative work on the learning in the making project, and the writing of this book, rather well. Our discussions for the sociocultural ‘home’ frame began not with cultural-historical theory (as the chapters referred to by Guttiérrez do) but with ideas about belonging from Etienne Wenger (1998), and the work on affordance networks and ecological frameworks from James Gee (2008), Sasha Barab & Wolff-Michael Roth (2006), James Greeno (2006) and Uri Bronfenbrenner (1979). But as our ‘other foot’ moved around, we recognised the important role of positioning and agency in the design of the educational settings in which we sited our research. Pierre Bourdieu (e.g. 1990), read in less determinist mode (Albright & Luke, 2008), provided one of the bridges we needed. His connection between disposition and position, also elaborated by Dorothy Holland, William Lachicotte, Debra Skinner & Carole Cain (1998), has provided a guiding theme to the argument that this book makes about learning. Holland et al. describe this theme as being about identity and agency in cultural worlds, so this is the territory into which we have ventured as well. We take the view that agency extends “beyond the skin” (Wertsch, Tulviste & Hagstrom, 1993, p. 337), sited in the ways in which children are positioned by their social and physical environments and the tools they share with others (including language). “The spark of agency”, according to Peter Johnston (2004, p. 29), “is simply the perception that the environment is responsive to our actions.” In this study we explore some aspects of the spaces in which that spark was kindled and kept alive.

BUILDING NARRATIVES FROM ‘PIECES’

Many writers have researched the ways in which learners construct, and make their own, the big ideas of subject knowledge: for instance in physics (Roth, 2001), mathematics (Wagner, 2006) or linguistics (Gee, 2008). We have been interested in the ways in which learners are, at the same time, apparently developing the big ideas of learning disposition. We are therefore foregrounding learning disposition, learning orientation (Dweck, 2006), habits of mind (Costa & Kallick, 2000) or learning power (Claxton, 2002), keeping in mind that in the background, closely tethered, are the subject knowledges and the domain-specific expertise. James Greeno combines the two when he writes about “aspects of classroom practice that involve both interpersonal and subject matter aspects of interaction” (Greeno, 2007 p. 21).
CHAPTER ONE

We are also straying into the topic of transfer of learning, and one idea about transfer that has resonance with our interest in the tethering of learning disposition to context is the notion of ‘transfer by pieces’ (Wagner, 2006). Joseph Wagner develops this idea to theorise a student’s growing understanding of ‘big ideas’ in mathematics; he describes Maria and the researcher revisiting a number of mathematics education episodes in which Maria participated and where the same idea appeared in different guises. He writes about the value of Maria seeing the ‘pieces’ as a sequence, and of the opportunity for reflection on the similarities and differences in situations. Carlina Rinaldi (2006) writes similarly about children and adults making meaning from a ‘dictionary of experiences’ which helped them to reflect, infer, hypothesise and understand (p. 76).

Our research followed this notion of building narratives from ‘pieces’ by using episodes as conceptual units (the pieces or building blocks of a repertoire of dispositions) and as units of analysis for the research data. We started the search for dispositions in social context and their affordances by observing and recording children’s activities in episodes of learning in their early childhood centres and schools.

Jay Lemke (2000) writes about researching ‘across the scales of time’, and sets out a table of ‘representative timescales for education or related processes’. The scale includes: an utterance (one-ten seconds), an exchange (seconds to minutes), an episode (about fifteen minutes), a lesson (an hour), a school day, and so on up to a planetary change of 3.2 billion years and a universal change of thirty-two billion years. In this research we zoomed in on episodes of ten minutes or more (‘thematic, functional units’), and the research considered the construction over time of dictionaries of ‘episodes of joint attention’ in early years settings.

Our interest in observing children’s episodes of joint attention developed from a study by one of the authors (Smith, 1999) of infant and toddler experiences at their early childhood centres. Joint attention is “an encounter between two individuals in which the participants pay joint attention to, and jointly act on some external topic” (Schaffer, 1992, p. 101). Joint attention episodes have long been regarded as important early learning contexts and experiences during infancy (Bruner, 1995; Schaffer, 1992; White, Kahan & Attamucci, 1979). Much of the early work tended to look mainly at infants and their mothers. Looking for an explanatory hypothesis about the effectiveness of particular teacher practices in early childhood centres, the Effective Provision of Preschool Education (EPPE) study (Sylva, Sammons, Melhuish, Siraj-Blatchford & Taggart, 1999) categorised joint attention episodes between teachers and children. This was a qualitative extension to a five-year longitudinal study of the effects of preschool education on children’s attainment and social development at entry to school and beyond. The authors developed a category that they called ‘sustained shared thinking’ with sub-categories of ‘child initiated’ and ‘adult initiated’ (Siraj-Blatchford & Manni, 2008 p. 6). In that research, sustained shared thinking “came to be defined as an effective pedagogic interaction, where two or more individuals ‘work together’ in an intellectual way to solve a problem, clarify a concept, evaluate activities or extend a narrative” (p. 7). In our study, we extended our concept of episodes to include engagement with
activities or tools in the material world as well as joint attention activities with other people.

At the same time we reflected together and then zoomed out on what we interpreted as longer-term narratives, processes and patterns. We traced these episodes over time, analysing repeating patterns (Lemke, 2000, p. 278) and the social contexts that had apparently afforded, invited, provoked or inhibited the strengthening of learning dispositions over time. The clues we followed included those moments when learning dispositions in action appeared even when the social context was unfavourable, calling on children to resist the norms of the moment and therefore, in a sense, to refer back to their dictionary of facilitated experiences. On those occasions it appeared that the children themselves were ‘zooming out’, as Maria had done for the big ideas of mathematics in the Wagner study. In the following example, Joseph, one of the children in our study, appeared to be constructing an opportunity to zoom out from a particular and local conversation in his school classroom to a big picture of contexts that concern themselves with fairness and justice. This looked to us like a disposition in action, working against the grain of a worksheet activity which was mainly concerned with matching pictures and colouring in between the lines.

Joseph is colouring in a work sheet; the episode turns into a discussion amongst the children about who is the fastest. Joseph reminds the group that this should not be a race and adds: “If I win a race and all of you are trying, it’s not…What if I was ten and you were five?”. (Field notes. Joseph, phase three)

We shifted from the literature to the data and back again to begin to build narratives over time, in the same way as researchers “moved to and fro between the gradually unfolding stories of our young people and our emerging conceptual models and tentative theorizing” in a longitudinal study focusing on the continuity and change in young people’s dispositions to learning for seventy-nine year eleven pupils from secondary schools in the west of England (Bloomer & Hodkinson, 2000, p. 586). These researchers argued that although there was an extensive literature on learning, very little had been written about how children’s dispositions to learn changed over time. Our study will, we hope, make a contribution to this field.

LEARNING ‘IN THE MIDDLE’

In our rejection of the stages of development that had traditionally set out a normative pathway of learning and development, we were influenced by John Morss’s account of the way Rom Harré turned the notion of stages on its side, changing a hierarchical account of children’s development into a set of alternatives (Morss, 1996). In this way, a sequence becomes a conceptual network, retaining the historical conceptual work but inviting the analysis to recognise diverse learning journeys and trajectories. Jerome Bruner (1986, p. 155) also commented on his change of mind about the three stages of representation that he had advocated in 1971:
You represented the world in action routines, in pictures, or in symbols, and the more mature you became, the more likely you were to favour the after end of the progression than the starting end. At the time we thought that the course from enactive through iconic to symbolic representation was a progression, although I no longer think so. But I do still find it useful to make a threefold distinction in modes of representation, although not on developmental grounds.

Seymour Papert in his 1993 book *Mindstorms* celebrated ‘concreteness’ and criticised what he called the ‘perverse commitment to moving as quickly as possible from the concrete to the abstract’ (p. 146). The value of Piaget’s work, he maintained, is that he gave us valuable insights into the workings of a non-abstract way of thinking, and he pointed out that concrete thinking was not confined to “underdeveloped societies” or to children, but that people everywhere (from Paris to African villages) used it (Papert, 1993, p. 151).

Our observations and the literature insisted that we incorporate the opportunities to learn, or the design of the educational environment, into this study of learning dispositions over time. The notion of learning as a situated and ‘relational matter’ was expressed by Jean Lave in 1996:

Why pursue a social rather than a more familiar psychological theory of learning? To the extent that being human is a relational matter, generated in social living, historically, in social formations whose participants engage with each other as a condition and precondition for their existence, theories that conceive of learning as a special universal mental process impoverish and misrecognize it. (Lave, 1996, p. 149)

Situating learning means that “Learning is not separated from the world of action but exists in robust, complex, social environments made up of actors, actions and situations” (Pitri, 2004, p. 6). Our focus has been on what we have perceived as the relationship between the disposition and the design, and we have called on the literature on affordance networks to assist us in the quest for a framework for theorising the continuity and development of this relationship for the fourteen children in our study. Barab & Roth define an affordance network as resources or aspects of an educational design that are viewed as necessary or useful, depending on the purpose at the time:

An affordance network is the collection of facts, concepts, tools, methods, practices, agendas, commitments, and even people….that are distributed across time and space and are viewed as necessary for the satisfaction of particular goal sets. (Barab & Roth, 2006, p. 5)

James Wertsch (1998) writes about ‘living in the middle’, between the individual and the context, focusing on action mediated by people, places, and things. He has said that “a focus on mediated action and the cultural tools employed in it makes it possible to ‘live in the middle’ and to address the sociocultural situatedness of action, power and authority” (Wertsch, 1998, p. 65). The space in the middle is occupied by the relating: the recognising, adapting, editing, recontextualising,
improvising, constructing, enjoying, puzzling about, and taking up of (or ignoring) opportunities in the environment. This middle space is where identity work takes place. Cultural brokers and boundary objects — the recontextualising agents (Walker & Nocon, 2007; Lemke, 2000) — do their work there, and it is this space that is the focus of this book.

RECONCEPTUALISING AND REFORMING EDUCATION

Underlying all of this was a commitment to reconceptualising the major outcomes for education and to contributing to policy and practice discussions. We wondered what learning in the making might look like when we foreground learning dispositions, and what policy and practice can learn from this interpretation of the educational experience of a number of children over time, searching for continuity and dissonance over eighteen months in early childhood and after they had completed their first few months of schooling.

We had been aware for some time of the curriculum focus in many school curriculums — including our own in New Zealand when we began this study — on subject area knowledge and skill as the key outcomes for education. Our awareness that this is not the only way to conceptualise learning has been sharpened by a very different New Zealand early childhood curriculum in which the learning outcomes are summarised as working theories and learning dispositions (Ministry of Education, 1996, p. 44). There is a recognition in this early childhood curriculum that much knowledge is couched as ‘working theory’ with the implication that it is uncertain and that it may look different depending on one’s prior experience and the context. The curriculum also states that learning dispositions are important learning outcomes. Referring to the five strands of the curriculum (well-being, belonging, contribution, communication and exploration) the document states:

Dispositions to learn develop when children are immersed in an environment that is characterised by well-being and trust, belonging and purposeful activity, contributing and collaborating, communicating and representing, and exploring and guided participation. (Ministry of Education, 1996, p. 45)

After we began our study, a new school curriculum was published in New Zealand, with the significant inclusion of dispositional outcomes that have been called ‘key competencies’:

More complex than skills, the competencies draw also on knowledge, attitudes, and values in ways that lead to action….. The competencies continue to develop over time, shaped by interactions with people, places, ideas and things. Opportunities to develop the key competencies occur in social contexts. People adopt and adapt practices that they see used and valued by those closest to them, and they make these practices part of their own identity and expertise. (Ministry of Education, 2007, p. 12)

The cultures that develop in early childhood centres and school classrooms can be described as ‘dispositional milieux’; they may be overt and public, or subtle and
covert; they may support the spirit and intent of a curriculum document or they may not. Jo Boaler and James Greeno (2000), for instance, analysed the different ‘ways of knowing’ that had developed in two school mathematics classrooms with different dispositional milieux. They argued that ‘ways of knowing’ (after Belenky, Clinchy, Goldberger & Tarule, 1986) could be a characteristic of classrooms or places.

In the same way, we suggest that learning dispositions are features of places, in this case of early childhood centres, school classrooms and homes. These dispositional milieux are affordance networks: networks of useful resources, including people, that provide, or appear to provide, opportunities and constraints for the learning that the individual has in mind.

THE CHILDREN AND THE RESEARCH

We will meet the children – Aralynn, Buzz, David, Henry, Jack, Jeff, Joseph, Lauren, Leona, Lisa, Yasin, Ofëina, Samuel and Sarah1 – and aspects of their learning journeys, in chapters three to nine. When we first met these children they were attending two kindergartens2 and three childcare centres, located in three New Zealand cities. One research team worked in the North Island of New Zealand, the other in the South Island. These early childhood centres were selected on the basis that they met agreed criteria for quality: they all employed qualified (three-year degree) staff, provided stimulating environments (according to local advisors and our own knowledge), and had positive reports from the Educational Review Office3. The children and families who participated in the study were chosen because the children’s birthdays met the criterion of going to school over the same three-month period in 2003. We invited all the families whose children met this criterion to participate, and all of them accepted4.

Five of the families of the fourteen children in this book had moved to New Zealand from China, India, or the Pacific Islands during the previous five years. For four of them, English was an additional language for both parents5. For two of those children the grandmother or grandparents had moved to New Zealand to be with the family, looking after the child outside the early childhood centre sessions and after school, speaking the first language to them.

Of the fourteen children, five were the only child in the family, two were in re-constructed families with a stepfather, and there was one solo parent. On or around their fifth birthdays the children made the transition from the early childhood settings to ten new entrant school classrooms6.

Because we were interested in learning as the relationship between disposition and design, we wanted to observe the children’s engagement with other people, and the places and things in their learning environments, as well as to talk to a variety of participants in their learning settings – the children themselves, and their parents and teachers. A number of aspects of a critical sociocultural approach determined the ways in which we went about researching the space “in the middle” (to address the “sociocultural situatedness of action, power and authority”) that Wertsch (1998, p. 65) had described. These were: an interest in what was going on
in joint attention episodes, a view of children as capable co-authors of their own learning, and a concern for multiple perspectives.

*An interest in what was going on in joint attention episodes*

We observed each of the children over three different periods of time, or *phases*. Phase one observations were at the early childhood centre, close to the children’s fourth birthdays; phase two observations were also at the early childhood centre, a month or so before they turned five and would go to school; phase three observations were after a few months at school.

Children were observed for from four to 12 hours at each phase, twice in their early childhood centres (phases one and two), and once at school (phase three). We attempted to sample each portion of the day when the child was attending, and for any one phase of observation there were usually at least three days when the child was observed. We kept a continuous written running record of the children’s activities, and interactions, writing field notes at the end of the day. At the same time we were recording the children’s conversations via remote microphones placed inside ‘research jackets’ worn over their normal clothes by the children. The ‘research jackets’ were sleeveless jackets sewn with adjustable side straps to enable them to fit a range of young-children sizes. A pocket was also sewn onto them into which a small transmitter for the microphone was able to be easily inserted and removed. This process for recording the data was slightly different in the North Island from the South Island project (see Jones, 2009 for the North Island process, and Smith, Duncan & Marshall, 2005, for more details from the South Island). In the North Island, fifteen base calico jackets were sewn, and a variety of decorative jackets were available to be attached with velcro over the plain base jacket. The children were particularly interested in the fabrics of these over-jackets: the most popular were bright orange with silver tape, pink sequins, Pasifika (Pacific nations) designs, and silver stars on a black background. There was a demand by many of the children in the centres to wear the jackets; this meant that at any one time there were many children wearing the decorated ‘research’ jackets, while only one or two were being recorded. By phase two in the North Island, we introduced the novelty of placing the transmitters in belt packs or ‘bum bags’, and these were popular as well. In the South Island, a number of coloured base jackets were available, and the children chose from a collection of attractive badges (with pictures of trains, insects, angels etc) to decorate the jacket for the day. Occasionally the case study children decided to remove the jackets; then, we observed without the recording. In phase three, in the school classrooms, the North Island researchers used table-top voice recorders to provide data on the conversations, while the South Island researchers continued to use the jackets. We took digital photographs of children as they were engaged in activities at their early childhood centres or new entrant classroom.

We chose up to ten episodes for transcription and analysis for each phase of observation for each child (occasionally, if all the episodes were short, we included
CHAPTER ONE

more than ten). An episode was defined as a period of sustained involvement or joint attention with people (peers or teachers) or objects, having a clear beginning and end. Below is an example of an episode in phase two where Leona is engaged in her favourite activity: making things, in this case making a necklace from string and a shell. This after-lunch necklace project had begun before lunch, when Lizzie had the idea of making a necklace with shells and wanted to make a hole in a shell; Leona joined her in this enterprise. They could not figure out how to make a hole in the shell, and asked a teacher who suggested a drill might be the right tool – but said they did not have the right sort of drill at the centre. The teacher then suggested using the centre’s hot glue gun – but they had run out of glue. Leona commented on how she liked the smoothness of the inside of the shell, and talked to the researcher about the shellfish that lived in there. They found a safe place for their shells and then went off to play on climbing equipment and wait for a pre-lunch mat time where they would listen to a story.

Making a necklace: Leona (phase two)

After lunch … Leona has her shell and string all ready. Lizzie goes first, using the glue gun to glue her shell to the string (with assistance from the teacher). The teacher starts to tie a knot in the string but Leona suggests that Lizzie put it on before the knot is tied (to get the length right). Leona asks the teacher what the (glue) stick in the gun is, and the teacher explains how the glue stick works.

Leona: What are they? (points to glue sticks)
Teacher: That is actually the glue. That is it in a really solid form and then when it goes through this gun it gets really hot inside and it melts it and that is how it sticks.

Leona: Oh.
Teacher: So that is actually glue in a real hard solid form. It goes through the gun and then it melts it with the heat. Neat eh.
Leona: Yes.

Leona then measures her string by holding it up to her neck: “Shall we size it?”, she says. Teacher: “Shall we size it? That’s a good idea”. She assists Leona to measure the length for the necklace. ….

Then Leona uses the glue gun very competently and, after two attempts, joins the shell to the string. She puts it on, and asks the researcher “I want a picture of it on me”. A photo is taken.

A view of children as capable co-authors of their own learning

The notion of agency is threaded throughout the study. We viewed children as social actors with opinions and views of their own, as experts and agents, rather than as incompetent and passive recipients of what adults do to them (James, 2007; Mayall, 2002), so we devised ways in which to hear their voices in everyday activities, and to listen to their views on their learning. We had worked previously on research which attempted to get close to children’s thinking and perspectives
(Carr, 2001a, 2002; Smith, Taylor & Gollop, 2001), and, like Mariane Hedegaard (2009), we have been interested in everyday local settings as the site for researching children’s development and learning. In this project, the recording of the everyday learning episodes in the centres and the schools provided much of this data.

The observations and recording were one part of the mosaic of data in this study. A ‘mosaic approach’ was introduced to the research literature by Alison Clark and Peter Moss to explore ways of listening to young children. This approach describes a range of ways to research the views of young children in early childhood provision on “What is it like to be here?” and “Do you listen to me?”. The latter question was adapted from an evaluative framework developed in New Zealand for the early childhood curriculum (Clark & Moss, 2001 p. 12; Carr, May, Podmore, Cubey, Hatherly & Macartney, 2000). The mosaic approach includes observation and narrative accounts, child conferencing, children’s photographs and mapping of the place using photographs and drawings, tours led by the children, and role plays. Parents’, practitioners’ and researchers’ perspectives were added. In our project we talked informally to the children during the participant observations of everyday activities, took photographs and asked children for comments about the episodes around the photographs. We also invited teachers and families to discuss the photographs with the children, and invited children and their families to take photographs at home. Here is an example of a one-to-one interview with Jeff at his early childhood centre.

<table>
<thead>
<tr>
<th>Jeff attends a parent co-operative community childcare centre and the researcher is showing him photographs of a group of children who have climbed up on the climbing equipment and are singing “I’m the King of the Castle”. Jeff is not present in the first photograph but in the second photograph, he is shown climbing up to join the other children. Jeff (at that phase) was not often involved with a group of peers. This extract, however, shows that he is aware of his role in the peer group of the centre and does not want to be excluded.</th>
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<tr>
<td>Researcher: Okay, right let’s see what you did next (Picture of children – not including Jeff – on climbing equipment singing “I’m the King of the Castle”) PAUSE. You aren’t in this one.</td>
<td>Jeff: No, I came up you see. (The next photograph in the sequence is another one of the group after he had climbed up to join them).</td>
</tr>
<tr>
<td>Researcher: You did too – look (shows next picture which includes Jeff). But what were they doing?</td>
<td>Jeff: They were singing a song up there.</td>
</tr>
<tr>
<td>Researcher: They were, they were singing “I’m the King of the Castle”.</td>
<td>Jeff: Yeah.</td>
</tr>
<tr>
<td>Researcher: They were having a good time weren’t they, and you decided you’d join them.</td>
<td>Jeff: Yeah, I didn’t want them to tease me so I just came up.</td>
</tr>
<tr>
<td>Researcher: Oh I see you didn’t want them to tease you. Do you worry about [inaudible] teasing you?</td>
<td>Jeff: I don’t want to be the Dirty Rascal sometimes.</td>
</tr>
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CHAPTER ONE

<table>
<thead>
<tr>
<th>Researcher:</th>
<th>You don’t want to be the Dirty Rascal.</th>
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<tr>
<td>Jeff:</td>
<td>Yes.</td>
</tr>
<tr>
<td>Researcher:</td>
<td>That’s a bit mean isn’t it? So you wanted to be the King of the Castle too. (Shows another picture) (Interview with Jeff, phase one)</td>
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A concern for multiple perspectives

Families’ perspectives and stories from home contributed to our interpretations. Andrew Pollard and Ann Filer’s research on patterns of learning orientation concluded that parents of young school children played a significant role in discussing, mediating and interpreting school experiences and new challenges (Filer & Pollard, 2000, p. 141; Pollard & Filer, 1999). The EPPE study also found that home learning environments predicted child outcomes at pre-school, but socio-economic status and parent qualifications were not the whole story. Iram Siraj-Blatchford concludes: “In other words; EPPE found that it is what parents did that is more important than who they were” (Siraj-Blatchford, 2004 p. 9). We interviewed the families at each phase of the research, sharing our ideas with them, and inviting them to write down their children’s comments about photographs of the children in action at the early childhood centre. We gave the families a disposable camera for the children to take photos of home activities and we used these photographs as a catalyst for discussions. We asked the parents for their perspectives about their children’s learning. David’s mother, for instance, contributed her thoughts about the continuity of David’s learning:

In some ways I was probably disappointed [that the school didn’t ask about his interests], especially because he was a sandpit child, and the concern that he may not have settled into the classroom. This is a boy who’s never sat down for half an hour. … Friends would say “Oh, you know, David, he won’t sit on the mat”. But I thought, well, I always thought that he would, because he’s got good concentration. (Interview with David’s parents, phase three)

We also recorded conversations with the teachers (often in a group at the early childhood centre), asking whether what we observed was fairly typical for the case study children’s participation in the centre or the classroom. The school teachers often wanted to talk about the constraints on their teaching. One of the teachers commented on what she called the ‘crowded curriculum’ in the early years of school:

In the olden days we had what was called ‘Developmental’. Probably when I first started teaching [over ten years ago]. When I first started teaching, you’d have a developmental time in the morning, and like a kindy [kindergarten], you’d have set-up stations. You’d have water play and play dough, and they could roam around and go, like, an easier transition to school from kindy. And while they were doing that, you could withdraw little groups, and do some writing with them, or…. But as the curriculum became more crowded,
we had to fit in more coverage of subjects, and we don’t have time to let them play. It seems dreadful. The only time they have for free choice is when they finish their work. (Teacher interview, phase three)

These discussions with the teachers made it clear that, as Bronfenbrenner would have reminded us, there is another level of actual and perceived affordance operating here: the ways in which mandated curriculum and school-wide or early-childhood-service-wide policies and practices can enable or disable the teachers’ perceived (and actual) ability to design and provide opportunities to strengthen learning dispositions for the children in their centres and their classrooms. There was a wider system of influence for at least five of these families too. These New Zealand families had left their homelands for a better life and a good education for their children; they were accountable to an extended family overseas.

Chapter two will introduce the three learning dispositions that became the focus of this study: reciprocity, imagination, and resilience. The six chapters that follow chapter two tell stories about learning in the making for the fourteen children who began their early-childhood-centre and school educational journeys in five early childhood centres and shifted to new entrant classrooms in ten different schools. In each of those chapters, two or three case study children illustrate a facet of one of the three learning dispositions.
CHAPTER TWO

DISPOSITIONS AND POSITIONS

Mapping the Field

How shall we deal with Self? … I think of Self as a text about how one is situated with respect to others and towards the world – a canonical text about powers and skills and dispositions that change as one’s situation changes from young to old, from one kind of setting to another. (Bruner, 1986, p. 130)

Learning dispositions, as described here, are complex units of educational input, uptake and outcome. We are more or less disposed to notice, recognise, respond to, reciprocate with, author, improvise from, and imagine alternatives to, what we already know and can do. Dispositions act as an affective and cultural filter for trajectories of learning in the making, and they can turn knowledge and skill into action. They can often be traced back through generations of families and students, and are strengthened, adapted, transformed or interrupted by circumstance and experience. They are the source of the recognition (or misrecognition) of learning opportunities and provide strategy and motivation for the inevitable improvisation that is learning.

But this notion of ‘they’ is a reification, turning dispositions into things that we can ring-fence, move about and nail down. This objectification is a typical trick of language (Sfard, 2008) and might do well in an introductory paragraph about dispositions, but as researchers and teachers it is more helpful to think of dispositions as units of participatory action, as verbs with qualifying adverbs (Claxton & Carr, 2004). This chapter will oscillate between the noun and the verb, but our stance is that a disposition is a process of overt and covert decision-making about a course of action. These decisions, consciously and unconsciously, are made in relation to the perceived affordances or opportunities in the environment; and in relation to particular purposes, desires and intentions by the individual or the collective at the time. The literature that we have found useful comes from two different, but intersecting, directions. We describe these directions as Dispositions for the individual: being ready willing and able and Dispositions in social fields and communities.

DISPOSITIONS FOR THE INDIVIDUAL: BEING READY WILLING AND ABLE

Dispositions that focus more on the ‘mind’ than the ‘environment’ appear in the literature under various names, and in various guises: as intellectual habits (Sizer, 1992), mindsets (Dweck, 1999, 2006) or habits of mind (Costa & Kallick, 2000), thinking dispositions (Perkins, Jay & Tishman, 1993; Ritchhart, 2002), learning
dispositions (Bloomer & Hodkinson, 2000), ways of knowing (Belenky, Clinchy, Goldberger & Tamle, 1986; Boaler & Greeno, 2000), key competencies (Rychen & Salganik, 2001, 2003), and learning power (Claxton, 2002). In 1987, Lauren Resnick commented on the disposition to be a good thinker, pointing out that much of that is learning to recognise, and even search for opportunities to apply one’s capacities. Later, in 1993, a three-part analysis of thinking dispositions was outlined by David Perkins, Eileen Jay and Shari Tishman at Harvard University’s Project Zero: inclination, sensitivity to occasion, and ability. They argued that:

It would be easy to see dispositions mainly as an effort to honor the role of motivation in complex cognition, and certainly this is one of the objectives. However, to treat dispositions as solely about motivation would be to take too narrow a view. Instead, we propose a conception of dispositions that includes attention to habits, perceptual sensitivities, and even abilities themselves. This conception puts forth dispositions as a unit of analysis for a broad and fruitful conception of mind. Specifically, a disposition in our sense is a psychological element with three components: inclination, sensitivity, and ability. (Perkins et al., 1993, p. 4)

These were later summarised as attitude, alertness and ability (Perkins, 2001). We have widened the focus by calling them learning dispositions, but we still find the three components the most helpful description, making it very clear that dispositions are different from (but incorporate) skills or strategies. In the final chapter we will shift this triad of components into the “middle” space between the individual and the educational design or environment.

One way of describing this triad was to say that learning includes knowing why, knowing when and where, and knowing how, to use knowledge and ability – later described as being ready, willing and able (Carr, 2001b; Claxton, 2002), an idea which has been incorporated into the New Zealand school curriculum, in the construct of key competencies:

As they develop the competencies, successful learners are also motivated to use them, recognising when and how to do so and why. (Ministry of Education, 2007, p. 12)

**Knowing why: the inclination**

People often don’t apply or practise their skills if they are not inclined to do so – if they don’t recognise why, or feel that, they should. Inclination is usually associated with the learners’ intentions, interests, goals and commitments. Opportunities to learn in the classroom may – or may not – connect with intentions and commitments from prior experiences, or in communities outside the classroom (Goodenow, 1992; Nasir & Saxe, 2003). Margaret Donaldson (2002 p. 259) has reminded us, however:

That people should not be forced into activities that seem pointless to them is, I am sure, the intuition underlying the claim that all education must be
relevant to pupils’ lives. And this basic intuition is sound. But education is about changing lives – about enlarging the scope of relevance. It is about changing the modal repertoire for one thing. It is about suggesting new directions in which lives may go (p. 259).

In a story about the curriculum in a high school in Harlem, five ‘habits of mind’ were phrased as questions posted on the wall of every classroom. Deborah Meier, the principal, commented: “But the most important of all is the 5th ‘habit’: Who cares? Knowing and learning take on importance only when we are convinced that it matters, it makes a difference” (Meier, 1995, p. 41). Interest is part of this. Mihaly Csikszentmihalyi (1996) interviewed ninety-one ‘creative’ people (including fourteen Nobel prize winners) and concluded that in their early years those innovative thinkers had at least one strongly developed interest (even if this was not the interest that they became known for later in life).

**Knowing when and where: sensitivity to occasion**

An aspect of all learning is, in a sense, learning to ‘read’ situations: recognising when to speak, when to be silent, when to ask questions. We bring our prior experiences to these ‘readings’, and this may enhance or constrain our interpretations. Barbara Comber’s (2000) work on early literacy highlighted the children’s disposition to ‘read the environment’, and Barbara Rogoff has commented (2003, p. 253) that generalising experience from one situation to another involves knowing “which strategies are helpful in what circumstances”. Of course, our intentions, interests and passions – knowing why – also contribute to our understanding about knowing when and where: they influence the opportunities that we notice and recognise.

Barab and Roth (2006 p. 3) have emphasised the importance of the ‘attunements’ that an individual can enlist to realise an affordance network and Helen Haste, writing about competencies for the OECD **Definition and Selection of Competencies: Theoretical and Conceptual Foundations** (DeSeCo) project, says that “It (competence) implies effectiveness not only in performance, but in the interpretation of context and meaning” (Haste, 2001, p. 94). Philippe Perrenoud (2001, p. 132) argues that: “Learners need to be able to mobilise resources and to orchestrate them, at an appropriate time, in a complex situation”. Outlining a ‘situative’ view of learning and making a connection between attunement and transfer of learning, James Greeno and colleagues say that:

*Learning, in this situative view, is hypothesized to be becoming attuned to constraints and affordances of activity and becoming more centrally involved in the practices of a community (Lave & Wenger, 1991), and transfer is hypothesized to depend on attunement to constraints and affordances that are invariant or modifiable across transformations of a situation where learning occurred to another situation in which that learning can have an effect. (Greeno and the Middle School Mathematics Through Application Project Group, 1998, p. 11)*
CHAPTER TWO

We have become interested in the ways in which learners might perceive constraints or affordances to be invariant or modifiable across situations, and which curriculum or pedagogical designs can afford the recognising or constructing of constraints or affordances – with learning dispositions in mind. Where learning dispositions are fragile, we assumed that designs for ‘sensitivity to occasion’ will require more powerful mediation than material affordance can offer: the environment may need to invite learners to participate, actively engage them and include their prior knowledge in conversations and interactions of joint attention, or provoke them to recognise opportunities that are unfamiliar and new (Claxton & Carr, 2004). We have extended the definition of ‘affordance’ and an ‘affordance network’ to include these processes.

Knowing how: the ability

Although Perkins and colleagues write about dispositions as ‘beyond abilities’, they argue for including dispositional ability as one of the three components: the ability to ‘follow through’, to take another point of view, for instance. In our triadic model of disposition, actual and perceived ability is part of the learning disposition. Lorna Hamilton (2002) argues, for instance, that conceptions of ability are part of the work of classrooms and that classroom organizational patterns are reflected in pupils’ perceptions of their ability. Her research explored the ways in which pupils from different schools “chose to deal with competing or complementary constructions of ability” (Hamilton, 2002, p. 591). She researched the nature of ability conceptualisation from a range of perspectives – teachers, parents, and pupils – in four case study schools. Her discussion included ideas of fixed capacity, and the influence of ‘setting’ (streaming), and grading. She noted the role of families on the negotiation of what she has called ‘pupil ability identity’, adding that: “the impact of those in power may be challenged or reinforced by parental constructs of ability and schooling”. (p. 593).

In chapter one we commented on the tethering of dispositions with subject knowledges and domain-specific expertise. Subject-matter ability and knowledge domains interact closely with learning-disposition ability and knowledge domains. For instance, our children’s knowing in the domains of concrete making, cooking, gardening, writing, and the protocols for dramatic play were closely tethered to what they knew about relating to others, responding to set-backs with resilience, and imagining alternatives inside dispositions towards reciprocity, resilience and imagination.

Being ready willing and able

We have retained this triadic definition of learning disposition throughout the book. When we came to analyse the children’s dispositions-in-action, with reference to “living in the middle”, we described inclination, sensitivity to occasion and ability (being ready, willing and able) as authoring, recognising opportunity and connected knowing.
DISPOSITIONS AND COMMUNITIES: IDENTITY WORK IN THE MIDDLE

What is sought is an understanding of society and individuals that avoids the twin hazards of ‘individual constructivism’ and ‘social determinism’. The one emphasizes the individual to such an extent that minimal attention is given to the way objects are socially defined, actions are socially constrained, and the acquisition of some forms of knowledge is promoted and of others is restricted or prohibited. The other sees the social context as shaping the individual to such an extent that attention to choice, resistance, or intention becomes minimal. Both of these extremes are avoided when the person-participating-in-a-practice is taken as the unit of analysis. (Miller & Goodnow, 1995 p. 8)

We developed a broad base of three dispositions: reciprocity, resilience and imagination, constructed as a framework from sociocultural theory. This chapter describes the conceptual journey that took us there. A second layer of six disposition-in-action was then constructed from our research on children’s activities and conversations in real-life social and cultural contexts.

Authoring and authoritative positioning

A number of writers have been interested in the interactive space between the design of environments that contribute to dispositional work and the development of dispositions. James Greeno (2006), for instance, writes about authoritative and accountable positioning, and connected general knowing, as ‘progressive themes in understanding transfer’. In a 2006 commentary he is reviewing papers in an issue of the Journal of the Learning Sciences on the topic of the transfer of learning. One of the authors in that issue of the journal (Randi Engle) uses the concept of sociolinguistic framing and Greeno writes in response about ‘authoritative and accountable positioning’ (p. 538, italics in the original):

The sociolinguistic concept of framing is a close conceptual relative of some other concepts in the study of interaction, such as agency, positioning, and positional identity. Accounts that use these concepts draw attention to aspects of interaction such as crediting individuals with authorship, initiating ideas and topics, and challenging or questioning what others have to say. I refer to this collection of concepts here as authoritative and accountable positioning.

“Authoritative, accountable positioning” is a collection of aspects of interaction that includes crediting individuals with authorship. This notion of positioning as a key construct for disposition was introduced in chapter one. Greeno concludes that “To act effectively in a way that counts as transfer, therefore, involves having or taking authority to go beyond what has been taught” (Greeno, 2006, p. 546).

Linked to this notion of crediting learners with authorship, the New Zealand early childhood curriculum sets out a framework of outcome strands, introduced in chapter one, that align with five domains of ‘mana’: a Māori concept that can be loosely translated as agency, authority, power or prestige. The implications of the
Māori constructs of these strands of belonging, well-being, contribution, communication and exploration, is that they are sources of authoring or agency, sited in: place, spiritual mental and physical well-being, people (the community or the collective), language, and knowledge of the world. Bourdieu has the following to say:

In short, the art of estimating and seizing chances, the capacity to anticipate the future by a kind of practical induction or even to take a calculated gamble on the possible against the probable, are dispositions that can only be acquired in certain social conditions…. Economic competence, like all competence (linguistic, political etc.), far from being a simple technical capacity acquired in certain conditions is a power tacitly conferred on those who have power over the economy or (as the very ambiguity of the word ‘competence’ indicates) an attribute of status. (Bourdieu, 1990, p. 64)

It is not possible to consider dispositions without using as a platform the theoretical work of Pierre Bourdieu, who insists on a wider scope for disposition and a longer time frame, and imbues them with a less tractable character. He writes about conditions of existence that produce habitus: “systems of durable, transposable dispositions”; they define responses by inscribing “things to do or not to do, things to say or not to say, in relation to a ‘probable’ upcoming future” (1990, p. 53). Bourdieu emphasises motivation and attunement: “[the habitus acts as] a system of cognitive and motivating structures… – procedures to follow, paths to take” (Bourdieu, 1990, p. 53).

James Albright and Allan Luke make a connection between James Gee’s notion of ‘primary discourses’ of early cultural socialisation and Pierre Bourdieu’s habitus, and comment that this has “refocused attention on the interaction of habitus with the social field of the school” (Albright & Luke, 2008, p. 7). In his 1992 book, The Social Mind, Gee has also outlined the features of what he calls Discourse (with a capital D); they would include Bourdieu’s ‘things to do or not to do, things to say or not to say, in relation to a ‘probable’ upcoming future’.

Discourses [with a capital “D”] are composed of people, of objects (like books), and of characteristic ways of talking, acting, interacting, thinking, believing and valuing, and sometimes characteristic ways of writing, reading, and/or interpreting (offering translations of oral and/or written texts sensitive to the cues these texts present for interpretations to these practices)…. Long before the child can decode print, she has become a member of one or more school-based Discourses – ways of thinking, acting, valuing with words and objects – that undergird school-based and mainstream literacy practices. (Gee, 1992, pp. 20, 123)

These ideas connect with New Zealand research by Stuart McNaughton on the ways in which literacy practices from diverse homes can be incorporated into school literacy practices, and research on ‘funds of knowledge’ in households, communities and classrooms, taken up in research projects by Pat Thomson and Christine Hall (González, Moll & Amanti, 2005; McNaughton, 2002; Thomson & Hall, 2008). The assumption behind González et al.’s “funds of knowledge” is that
families have valuable competence and knowledge from their life experiences, and that knowing about these family resources opens up new possibilities for learning and effective classroom teaching. Prior experience provides the foundation for interpreting new information, and discourse and practice together form the basis for an approach to viewing households. Pat Thomson and Christine Hall’s research explores the ways in which curriculum design can ignore or thwart opportunities to connect with funds of knowledge (or ‘virtual school bags’). They comment on the respectful ethnographic studies of González and colleagues, and their utilisation of students’ experiences and understandings at home as a bridge to the learnings that count as school success. Thomson and Hall (2008, p. 100) believe that it is necessary to open the ‘virtual school bags’, but also to change what counts as important knowledge. They conclude that the prescribed and privileged “sets of knowings and doings” within the UK English national curriculum are not easily permeable for children who have a diverse range of community pedagogy and knowledges.

Research in classrooms inspired by Bourdieu has focused on identity work. Jessica Zacher (2008, p. 252), for instance, researched what fifth grade students in an urban Californian classroom ‘did with discursive practices for talking about difference that they gleaned from assigned multicultural texts’.

My analysis takes place at the intersection of habitus, “that product of history [that] produces individual and collective practices” (Bourdieu 1977:82), and social space, where such practices are formed and reformed…. In this sense, students’ identity and affiliation choices were mediated by both their habitus-histories and their sense of what kinds of identity claims were permitted to them by their position in the classroom social hierarchy. (Zachner, 2008 p. 254)

Writing about ‘positional identities’, and echoing Bourdieu, Dorothy Holland et al., (1998, p. 143) have suggested that children have relational identities, “a set of dispositions toward themselves in relation to where they can enter, what they can say, what emotions they can have, and what they can do in a given situation”. In a discussion of ‘Identity and Agency in Cultural Worlds’, they use the term ‘figured world’ to refer to a cultural world or space (p. 60). Figured worlds refer to meaning and action contexts in which social positions and relationships take place; we have also called them ‘dispositional milieux’. They provide the spaces in which people fashion their identities, so there is a connection between identity and trajectories of participation:

(Identities) remain multiple, as people’s trajectories through figured worlds neither take on one path nor remain in the ambit of one cultural space, one figured world. Nonetheless, identities constitute an enduring and significant aspect of history-in-person, history that is brought to current situations. They are a pivotal element of the perspective that persons bring to the construal of new activities and even new figured worlds. (Holland, et al, 1998, p. 65, our italics)
Bourdieu described habitus as “embodied history, internalized as a second nature and so forgotten as history” (Bourdieu, 1990, p. 56). And, although a reading of Bourdieu is that he favours structural determinism over agency (Albright, 2008 p. 18), we take the stance that dispositions are durable but not fixed, a view supported by Albright and Luke (2008) and the work of Dorothy Holland and her colleagues, who view habitus as a fundamental but not finally determining aspect of identity and personhood. Bloomer and Hodkinson’s research (2000) on the learning careers of English secondary students, argued that dispositions can transform in a short time. They write about “the complexities of relationships between positions and dispositions, and between contexts, meanings, identity and learning” (p. 593), and comment on the connection with Bourdieu:

He [Bourdieu] talks of a person’s habitus: a portfolio of dispositions to all aspects of life, largely tacitly held, which strongly influence actions in any situation – familiar or novel. The habitus is, in turn, influenced by who the person is and where in society they are positioned, as well as by their interactions with others. (Bloomer & Hodkinson, 2000, p. 589)

In the 21st century, early years figured worlds and dispositional milieux beyond the home – early childhood centres – play an increasingly significant role, wittingly and unwittingly, in mediating students’ identity and affiliation choices. Children now spend longer hours in early childhood programmes, and at increasingly younger ages. In our view, dispositional design in early years educational programmes should be implemented more wittingly, more deliberately, and this book provides research and reflection to inform such a project.

Linking clusters of disposition to modes of belonging and conceptions of culture

Three messages from Bourdieu are relevant to the learning in the making discussion here.

- Dispositions inform us about who we can or ought to communicate with, how to do this, and what language we should use.
- Habitus is a life-style, a ‘world view’ (Bourdieu, 1979/1984, p. 173). It develops in early experiences and social fields, and it invites us to choose familiar pathways.
- It implies certain commitments, responsibilities, expectations and possibilities (and ignores others).

The work of Etienne Wenger (1998) parallels these ideas, but takes us directly to agency and designs for change. Wenger suggests that identity work resides in the development of belonging to a community of practice and that there are three distinct but necessarily connected modes of belonging: mutual engagement, alignment and imagination.

- On educational engagement he says that a learning community, in contrast to traditional learning institutions (which often ignore these), should view social relationships and interests as essential ingredients in maximising members’ engagement.
On educational **alignment** he says that education should engage communities in broader contexts in purposeful activities which have consequences beyond their boundaries, in order to help students become more effective in the world.

On educational **imagination** he says that imagination is an integral part of education, and that education should not be confined to teaching specific capabilities but instead make students aware of a variety of possible trajectories.

Another parallel can be made with Martin Packer and Mark Tappan’s (2001) analysis of conceptions of culture. They distinguish between three types of culture. Firstly culture as mediational means and the arrangements of artefacts, events and practices into an intentional world. Secondly culture as the use of power in division, exclusion and domination. Thirdly culture as the semiotic messages and texts of human communication. The three forms of culture are not mutually exclusive, and influence children as power “enacted in messages circulating through one or more forms of life. But the threefold division is a helpful one, in part because parallel to these conceptions of culture we can anticipate three broad strategies of critique” (Packer & Tappan, 2001, p. 13). In this last sentence, Packer and Tappan (p. 13) are referring to researcher critique, and they set out three parallel critical aims for research. These are:

- to read communication messages critically;
- to diagnose the operation of power and its consequent exploitations and coercions;
- to disclose how culture provides conditions for a possible way of life.

Just such a critical stance can be envisaged as a long-term dispositional goal for learners.

We therefore saw synergies between (i) Bourdieu messages: habitus informs us about who we can/ought to communicate with and how to do this, it invites us to choose the familiar, and it suggests possibilities, (ii) Wenger modes of belonging: engagement, alignment and imagination, (iii) Packer and Tappan conceptions of culture: the semiotic forms of messages and texts in human communication, the play of power, and artefacts, practices, and events that make up an intentional world, and (iv) Packer and Tappan’s foundations for critical disposition: reading the messages critically, understanding who and what is recognised as being of value here, envisaging possible selves and possible worlds. From these synergies we constructed three dispositions as our conceptual frame, aligned with these three frameworks: reciprocity, resilience and imagination (see Table 2.1).

<table>
<thead>
<tr>
<th>Dispositions in this study</th>
<th>Reciprocity</th>
<th>Resilience</th>
<th>Imagination</th>
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<td>Bourdieu messages</td>
<td>Habitus informs us about who we can/ought to communicate with and how to do this</td>
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<td>Wenger modes of belonging</td>
<td>engagement</td>
<td>alignment</td>
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We then interrogated our data to select two actions, or facets, for each learning disposition. These broadly described actions do not in any sense ‘cover the field’ of the three dispositions: they might be described as examples that provide the opportunity for us to analyse learning identity at work “in the middle” and for the reader to reflect on and critique these ideas. They are the verbs that make visible the nouns of disposition. And all three learning dispositions are intertwined and interlocked, so the case studies written up here do not encompass all aspects of each child’s learning journeys. They provide a framing for each of the fourteen children’s stories, to inform the discussion of disposition and design.

**RECIROCITY: THE LEARNING DISPOSITIONS AND THE LEARNING DESIGN**

Developmentally effective proximal processes are not unidirectional: there must be influence in both directions. In the case of interpersonal interaction, this means that initiatives do not come from one side only; there must be some degree of reciprocity in the exchange. (Bronfenbrenner & Morris, 1998, p. 996)

It is a central aspect of learning that we are social beings. A sociocultural perspective suggests that learning develops from, and is embedded in reciprocal and responsive relationships and interactions with other people, who share meanings and understandings (Bruner, 1986; Lave & Wenger, 1991; Vygotsky, 1978). Children perform more capably in collaboration with others and learning changes how people belong, participate and negotiate meanings with each other. Collaboration stretches children’s thinking, and invites them to learn more difficult things. Human beings are able to learn collaboratively when they put themselves in the ‘mental shoes’ of other people (Tomasello, 1999).

Multiple individuals create something together that no one individual could have created on its own. These special powers come directly from the fact that as one human being is learning ‘through’ another, she identifies with that other person and his intentional and sometimes mental states. (Tomasello, 1999, p. 6)

A disposition towards reciprocity includes engaging in dialogue with others, negotiating mutual sense and interest, communicating with others (both adults and peers), giving an opinion, taking into account the perspectives of others, sharing responsibility, communicating ideas, and valuing being and becoming a group
The absence of reciprocity is characterised by ignoring the viewpoints of others, not taking advantage of others as resources for learning, not engaging in collaborative role-taking, and not sharing responsibilities and activities (Bronfenbrenner, 1979; Carr & Claxton, 2002). Reciprocity emerges out of warm, trusting relationships during infancy when babies are surrounded by “prompt, contingent and consistent responses” to their signals (Clarke-Stewart, 1973, p. 4). The characteristics of social interactions which provide ongoing momentum for learning are reciprocity, a balance of power and warmth (Bronfenbrenner, 1979). Bronfenbrenner’s famous statement that learning is facilitated by “the participation of the developing person in progressively more complex patterns of reciprocal activity” (Bronfenbrenner, 1979, p. 13) highlights the centrality of reciprocity in learning. Language increases the possibilities for reciprocity because it extends dialogue and provides a shared means of encoding experience. Toddlers as they are beginning to learn language, engage in talk with parents and other people about everyday activities, the past and the future (Nelson & Fivush, 2004). These conversations and stories are crucial in strengthening dispositions towards ongoing learning. Peer conversations are a source of extending learning for preschool children.

Experience with different forms of narrative, in play, in stories, and especially in talk about personal episodes, provides a model for organizing one’s own episodic memories into the kinds of narratives that emphasize personhood, motivations, goals, outcomes, emotions and values. (Nelson & Fivush, 2004, p. 8)

The engagement of the participants in this study in joint attention episodes (Moore & Dunham, 1995) was a focus of interest in our research from the beginning. Joint attention involves an individual paying attention to some external object or topic with one or more other people (Schaffer, 1992), and requires shared experience of scripts, objects or events. Many researchers regard early episodes of joint attention between infant and caregiver as the crucible for the development of later reciprocal relationships. Bruner (1995, p. 3) describes joint attention as a way for children to ‘know other minds’, which first becomes evident when children realise that other people are agents with different perspectives and goals from their own. The realisation that other people are also intentional beings is the foundation for communication, language and identity (Bruner, 2002; Nelson & Fivush, 2004; Tomasello, 1999) and marks the beginning of a disposition towards reciprocity. The “dawning of the idea of ‘me’ has ramifications for how the child sees himself or herself in relation to the views of other people” (Nelson & Fivush, 2004, p. 8). In joint attention between an infant and an adult:

… as the child begins to monitor the adults’ attention to outside entities, that outside entity sometimes turns out to be the child herself – and so she begins to monitor adults’ attention to her and thus to see herself from the outside, as it were. She also comprehends the role of the adult from this same vantage point, and so, overall, it is as if she were viewing the whole scene from above, with herself as just one player in it. (Tomasello, 1999, pp. 99–1000)
A shared focus of attention helps to sustain reciprocity. From a study of joint attention in under two-year-olds in early childhood centres (Smith, 1999), the following example of a joint attention episode between a toddler and his teacher illustrates its important features.

### Putting Socks, Boots and Hat on

A is sitting by carer. 'Es a my socks', says A. 'Your socks, these yours?', says carer, kneeling. A points 'Dat sockey'. Carer says, 'You've got socks, he's got socks'. They laugh together. 'Where's your foot?' says carer. A. points. Carer says 'Put gum boots on?' A replies 'yes'. Carer says 'You want to fix it, good girl'. Carer tries hood. 'I had a hat', says A and pats head. A walks aside outside, puts foot in boot as she holds the wall, vocalises 'Ah, ug'. Carer asks 'Can't get it on'? A replies 'I push it'. (Joint Attention Episode, 17 month-old, Smith, 1999, p. 94)

The episode shows how the teacher supported the child’s growing language at the same time as helping him to put his socks, boots and hat on. The teacher was able to co-construct meanings with the toddler because of her familiarity with what the child knew and understood, including his idiosyncratic language, and their shared context and focus of attention. At the same time as the teacher engaged in reciprocal interaction with the child and called on his existing skills, she was extending his language and understanding and contributing to successful achievement of his goal. In this example, the teacher supported the child’s actions and showed sensitive responsiveness and intersubjectivity (or shared focus of understanding and purpose) with the child. While the adult played an important part in the episode, it is initiated by the child, but the adult was attuned to the child’s actions and intentions. The shared affect and warmth of the exchange was also a key feature in establishing and maintaining reciprocity. The child was not simply absorbing an adult perspective but was self-regulating his own activities in an interactive context.

The characteristics of the disposition of reciprocity that we found in our current research, however, differs to some degree from what was observed in Smith’s study of infants and toddlers, because of the different ages and contexts of our participants. Research on joint attention has focused on adult-child interactions. While these are of ongoing importance and power, we expected joint attention with peers to be much more influential and central to the learning of the four and five-year-olds in our study. Moreover in searching for dispositions we are looking, not just for episodes, but for ongoing ‘habits of mind’ (Carr & Claxton, 2002), and for the affordances which encourage these habits of mind to develop. We also had the opportunity in looking at our data, to see the trajectories of children’s dispositions, since we observed their learning in context over eighteen months between the ages of four and five-and-a-half. We looked at the changing patterns of how and with whom children engaged, the expectations and demands of their social partners, and
the extent to which children were able to understand and accommodate to the viewpoints of others.

We traced two facets of reciprocity: establishing a dialogue (chapter three), and being and becoming a group member (chapter four).

RESILIENCE: THE LEARNING DISPOSITIONS AND THE LEARNING DESIGN

For the purposes of this study we have defined resilience as an individual’s and family’s ability to: appraise the demands of different situations and to apply a set of skills and knowledge that enable the individual or family to ‘cope’ with and ‘recover’ from significant adversity or stress, in ways that are not only effective, but may result in increased ability to ‘respond’ to and ‘protect’ their families from future adversity. (Duncan, Bowden, & Smith, 2005, p. i)

Resilience, as a concept, has been well researched over the years. Often this research has examined how individuals who encounter risk or harm manage to keep their health and well-being intact while other individuals, who are described as not being resilient, succumb to the crisis (Coordenacao De Estudos E Pesquisas Sobre A Infancia (CESPI-USU), 2001; Duncan, et al., 2005, 2006; Gellert, 2002; Gilligan, 2001; Kalil, 2003; Masten, 2001; Walsh, 1996, 1998). For example, Masten (2001, p. 228) describes resilience as “a class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development”. In a theoretical overview of family resilience, based on a clinical orientation to family functioning, Walsh (1998) has outlined key family processes in family resilience. She examines the role of family belief systems, organisational processes and communication processes. Walsh (1998) sees “family resilience” as being significantly influenced by family belief systems. Resilient families are characterised as having beliefs that enable them to:

– make meaning of adversity (for example: normalising or contextualising adversity and distress; seeing the crisis as meaningful or comprehensible; having a sense of coherence)
– affirm strengths and possibilities (for example: maintaining courage and hope; optimism)
– encourage transcendence and spirituality (for example: seeking purpose in faith, rituals, creativity).

We have looked at resilience, in this project, as a disposition which is afforded or constrained by the children’s experiences and environments (i.e. their social contexts) rather than as an individual psychological trait, or belief system, in isolation. This approach to resilience has emerging support from researchers who are working in social constructionist approaches to resilience (see Ungar, 2004a) where they argue that in contrast to a developmental or ecological approach, a constructionist approach “defines resilience as the outcome from negotiations between individuals and their environments for the resources to define themselves
as healthy amidst conditions collectively viewed as adverse” (Ungar, 2004b, cited in Ungar, 2004a).

Affordances and constraints in educational settings include this access or lack of access to resources. With our case study children we used a contextual examination of features of resilience within a learning setting, and we explored the role that the affordances and constraints played on children’s enactment of ‘resilience’. In this way our study shares much in common with constructionist studies of resilience and less with traditional developmental approaches. Mike Ungar (2004a, p. 354) poses a challenge to the traditional ecological model of resilience, arguing that its causal linkages and predetermination of health outcomes “is simply unable to accommodate the plurality of meanings individuals negotiate in their self-constructions as resilient”. He summarises the debate between approaches to resilience:

While there is agreement that certain factors put children at risk and others mitigate risk, there is no universal set of conditions that can be said to protect all children. In part, this is because no one set of causal risk factors has been found, or is likely to exist. … Understood [in a constructive] way, “resilience is the outcome of negotiations between individuals and their environments to maintain a self-definition as healthy”. (Ungar, 2004b, cited in Ungar, 2004a, pp. 350, 352)

Addressing resilience in learning outcomes enables us to shift our gaze to learning challenges and successes. Carol Dweck’s (2000, 2006) extensive research on what she calls performance goals and learning goals are relevant here. One of the goals that students enter school with, and that have consequences for the type of learner students become is: looking competent and performing well. Carol Dweck (1985) and Carole Ames (1992) called this a ‘performance’ goal or orientation and contrasted it with a ‘learning’ (Dweck) or a ‘mastery’ (Ames) goal or orientation. Research by Dweck and colleagues has indicated that many four-year-olds are sacrificing valuable learning opportunities in order to ‘look good’ (Smiley & Dweck, 1994). Task-involvement in learning or mastery goals is contrasted with ego-involvement in performance goals. Learning goals are associated with an incremental belief about intelligence (a growth mindset), while performance goals are associated with an entity belief about intelligence (a fixed mindset) (Dweck, 2006). We can argue that ‘learning goals’ are never appropriate for all occasions (nor are performance goals), but that an aim of education is for children to be sensitive to occasion, to be able to ‘read’ the environment, and to be therefore equipped to deploy strategies and goals appropriate to the occasion. Although Dweck does not allude to Bourdieu, we can make a connection via the following comment by James Collins:

Bourdieu and Passeron’s Reproduction had attributed to class habitus the disposition to assume that you are simply expected and entitled to higher education versus the pre-conscious fear that you will probably fail, leading to dropping out and other forms of educational self-exclusion. (Collins, 2008, p. 366)
In a research project in an early childhood centre Margaret Carr argued that learning and performance goals can become embedded (often covertly) over time in the design of activities by participants – adults and children – in particular places. For instance, in an early childhood centre, discourses of performance had become attached to screen-printing while discourses of authoring had become attached to an activity that had begun as ritualistic and routine: marble painting (Carr, 2001c). This project moved Dweck’s ideas into “the middle”, into the relationship between the individual and the environment, interpreting places and activities as dispositional milieux, while children’s entering dispositions formed ‘default settings’ for interpreting and taking up, or ignoring, affordances. The children in the Learning in the Making study were constructing resilience within a multiplicity of social contexts. Viewing resilience as sited ‘in the middle’ enabled us to see it as children negotiating with others (people), the environments (places) and the resources (things) they need to position themselves as authoritative within adverse difficult or challenging circumstances (Ungar, 2004a).

We traced two facets of resilience: initiating and orchestrating projects (chapter five), and asking questions (chapter six).

IMAGINATION: THE LEARNING DISPOSITIONS AND THE LEARNING DESIGN

Imagination is no mere ornament; nor is art. Together they can liberate us from our indurated [durable] habits. They might help us to restore decent purpose to our efforts and help us create the kind of schools our children deserve and our culture needs. Those aspirations, my friends, are stars worth stretching for. (Eisner, 2005 p. 214)

Elliot Eisner, an artist himself, is an eloquent and passionate advocate for the recognition of imagination in education. He argues that the ability to remember without the ability to imagine would leave us with a static culture, and that imagining should be one of the basics of education: “to create new images, images that function in the development of a new science, the creation of a new symphony, and the invention of a new bridge” (Eisner, 2005, pp. 107–108). He describes people with imagination as ‘boundary breakers’ who reject accepted assumptions, make the “given” problematic, and imagine new possibilities.

Karen Gallas (2003), Gunther Kress (2003) and Carey Jewitt (2008) have reminded us that human expression is multimodal, and imaginative multimodal representations enable us to recognise and construct new understandings and ideas. Gallas (2003, p. 4) argues that play is a critical part of learning and that wonder feeds our desire to understand the world. Paul Harris (2000, p. 8), reviewing the research on imagination, says that early pretence “offers a way to imagine, explore and talk about possibilities inherent in imagination”. In an essay entitled ‘What Happened to imagination?’ Maxine Greene, like Eisner, was troubled by the neglect and distortion of imagination in education:

It is not simply the idea of confinement [to one of the multiple realities available to human beings] that troubles me. It is the idea that young people
Dorothy Holland et al. (1998, p. 272) also write about a context of identity as ‘making worlds’ or ‘newly imagined communities’. Imagination is about creating images of the world and seeing connections through time and space by extrapolating from earlier and other experience. The disposition of imagination relies on making connections with the past, present and future; exploring possibilities; being playful and creative; connecting with cultural artefacts such as stories, characters, and shared knowledge from the past or from other places. The affordances for imagination include: opportunities for playing out stories of moment, connections with families, and conversations between adults and children that make these imaginative shifts and leaps. Barbara Rogoff (2003) links reciprocity and imagination, and argues that when social partners suggest connections between one situation and another, this enhances the creative role of individuals.

Imagination and play has been a theme of Vivian Paley’s teaching and writing for many years. Her books form a major research project into imagination, play and identity. She recognises that early childhood and school classrooms can be a safe place to re-run imaginative stories about fears friends and fantasy, stories that have personal and, frequently, collective, meaning. In Paley’s early years’ settings, dramatic play – with the children as authors, directors, and players – enables children to explore sense-making and to re-cognise events, making the connection between imagination and resilience. A London theatre director wrote to Paley describing young children in a reception class playing out the September 2001 attack on the New York Trade Centre, and part of that letter is published in the book A Child’s Work: the importance of fantasy play: “For all my years in the theatre and my belief in its value, I feel that right now I’m able to see its truest and deepest value. How amazing that this lesson comes from the age group listened to the least” (Paley, 2004, p. 109). In The Girl with the Brown Crayon (1997), Paley’s class spends much of the year exploring the books of one author, Leo Lionni, and she writes about how children use these imaginative stories to shape their lives. She describes the engagement of two-year-olds with making stories: “They are ‘doing’ stories. Doing goes beyond pretending and telling; doing is the final process, or at least the sum of events up to a particular moment” (Paley, 2001 p. 5). It is multimodal, embodied imagination, like dance. She sees story and play as ‘nourishing the ground and opening the seed packets’ for growing ideas and identities.

If readiness for school has meaning, it is to be found first in the children’s flow of ideas, their own and those of their peers, families, teachers, books, and television, from play into story and back into more play. It was when I asked the children to dictate their stories and bring them to life again on a stage that the connections between play and analytical thinking became clear. The children and I were nourishing the ground and opening the seed packets, ready to plant our garden of ideas and identities. … (Paley, 2004, pp. 11–12)
Considerations of identity connect with the idea of ‘possible selves’, introduced to the literature from psychology by Hazel Markus and Patricia Nurius (1986). They write about the selves we (think we) could become, and the selves that we are afraid of becoming.

An individual’s repertoire of possible selves can be viewed as the cognitive manifestation of enduring goals, aspirations, motives, fears, and threats…. Possible selves derive from representations of the self in the past and they include representations of the self in the future. They are different and separable from the current or now selves, yet are intimately connected to them (Markus & Nurius, 1986, pp. 954-955).

Markus and Nurius argue that possible selves are important because they function as incentives for future behaviour, and because they provide an evaluative and interpretive context for the current view of self (p. 954). Jerome Bruner takes a more cultural view, linking identity to story and comments that we are, from the start, expressions of our culture, and that culture is “replete with alternative narratives about what self is or might be” (2002, p. 86).

We traced two facets of imagination: exploring possible worlds (chapter 7), and storying selves (chapter 8).

**WHAT MIGHT WE ASK OF AN EDUCATIONAL SYSTEM OVER TIME?**

There are at least two reasons why we should pay attention to dispositions-in-action in the early years. One reason is that learning dispositions enable children (and adults) to go beyond what they have been taught, to improvise in new contexts, to re-cognise the past, to learn in the present, and to imagine the future. Ability and knowledge are part of this ‘going beyond’; they are necessary, but not sufficient: inclination (commitment) and attunement (to circumstances) are needed as well. A second reason is that there is research evidence that they appear at an early age, and we can argue that noticing recognising and responding to them in the early years is wise practice. Patricia Smiley and Carol Dweck (1994) concluded from their research on learning goals and performance goals (and associated incremental and entity beliefs about intelligence) that even very young children have developed mindsets about whether it is a good idea to risk failure (and one’s reputation as capable) by engaging with challenge, or better to play it safe and only engage with learning opportunities that will probably be successful. Bourdieu had maintained that “early experiences have particular weight” (1990 p. 60) in the social trajectories of dispositions as *habitus*: they develop from an accumulation, a ‘dictionary’ of episodes of joint attention.

What might we ask of an educational system over time? Gordon Wells (2002, p. 205) has said that it was the process of his and his colleagues’ research and reading on interaction in classrooms that made them recognise “the critically important role of dialogic knowledge building in fostering the dispositions of caring, collaboration and critical inquiry that are at the heart of our vision of education.” This project has worked in the same field of endeavour. The above discussion has also suggested...
that for all three of the dispositions we focus on in this book, critical inquiry or a critical stance can be envisaged as a long-term dispositional goal for learners: to be attuned to, to critique, and sometimes to resist or change the affordances and constraints in the environment; to choose from a repertoire or dictionary of discourses, communication strategies, positions, social intents and possible ways of life, depending on the circumstances. In order to tackle this project we have shifted our perspective from nouns of disposition (reciprocity, resilience and imagination) to the following verbs:

– establishing a dialogue
– being and becoming a group member
– initiating and orchestrating projects
– asking questions
– exploring possible worlds
– storying selves

These facets of learning disposition are the topics of the next six chapters.