Beyond Ticking the Boxes: From Individual Developmental Domains to a Sociocultural Framework for Observing Young Children

Marilyn Fleer and Jill Robbins
Monash University

Abstract

Australian perspectives on studying young children within a teaching or research context have emphasised the individual child in relation to what s/he ‘knows’ and can do. Observations conducted within most early childhood contexts have been traditionally analysed such that sequences of complex interactions are reduced to checklists of individual skills or acts organised around developmental domains. However, international research is increasingly challenging the taken-for-granted views of the ‘child as an individual’ attaining Western-world developmental norms. The emphasis is more on looking beyond the tick-boxes of developmental checklists. Learning and development are seen as occurring as a result of participation with others in culturally relevant contexts and tasks, rather than individualistic constructions of universal developmental milestones and competencies. This paper presents an alternative: observing young children in early childhood settings from a sociocultural perspective. Theory and practical examples are given.

Introduction

In the past thirty or forty years in Australian early childhood centres, one of the key principles has been the notion of studying ‘the individual child’ and her/his learning and development within key domains – physical cognitive, emotional and social. Even today, this idea is enshrined in early childhood guidelines and textbooks (see for example, Arthur, Beecher, Dockett, Farmer & Death, 2001; Bredekamp and Copple, 1997; Nixon & Aldwinkle, 2003). For example, Nicolson and Shipstead (2002, p.18) suggest that:

In the vibrant classroom, the teacher frequently has a pen and pad in hand to write observational notes using a variety of methods…

On a daily basis, teachers document children’s small developmental steps and plan supportive experiences. Weekly, they supplement the curriculum and learning environment according to the appraised needs of individual children.
This tradition draws heavily on the stage-based ideas of Piaget and his work on the development of children’s thought and intelligence, and is one of the key informants of the Developmentally Appropriate Practices (DAP) approach (Bredekamp, 1987; Bredekamp & Copple, 1997) so widely accepted within early childhood settings in Australia. The observation and documentation of children’s development and learning within a domains based framework, such as one inspired by DAP, focuses on:

…the individual child who, irrespective of context, follows a standard sequence of biological stages that constitute a path to full realization or a ladder-like progression to maturity (Dahlberg, Moss & Pence, 1999, p.46).

This method, which the authors consider problematic, frequently produces static, one-dimensional representations of complex sequences of interactions. These may be in the form of brief jottings that summarise what a child ‘knows’ or ‘can do’, such as:

‘Taryn shows right hand preference when holding paint brushes’
‘Jamal is developing the ability to express anger in words rather than actions’
‘Kiah takes turns with toys and activities’
‘Tom can count to 10’
‘Mangalika speaks confidently in front of the group’...

They may be slightly longer anecdotal records, for instance:

Jerri is playing in the block corner. Using his right hand, he pushes a wooden car along the row of blocks he has put out and makes engine noises as he goes. He fetches more blocks off the shelf and very carefully lines them up to extend his road, counting to five as he lays each one out.

Or they might be in the form of checklists, such as the one in Figure 1. In such observations, the observer ticks a box when a specified behaviour is observed, or places a cross against the items the child cannot successfully demonstrate.

Frequently, too, the teacher is encouraged to step back from a teaching role in order to make these observations. For example:

The teacher becomes a “potted plant”; that is, s/he withdraws from classroom activity and finds a corner where the children can be clearly observed and he or she takes observational notes (Wolfgang & Wolfgang, 1999).
These approaches draw on the theory that:

All children go through a sequence of development that can be observed. From large to small motor coordination, from simple ideas to complex thinking, from one-word utterances to lengthy sentences, from scribbles to representational drawings…all children everywhere seem to proceed through a step-by-step sequence of development that can be traced by a knowledgeable observer, one who knows what to look for … The purpose for observing children’s development in (a domains-based) manner is twofold: [1] for students of child development to gain an in-depth understanding of real children and their sequences of growth, and [2] for teachers of young children to become aware of each child’s growth, in order to support individual development and to give special help where developmental lags are apparent (Beatty, 1990, p.3).

Implicit in this approach is the notion of the universal development of all children, regardless of context, and that individual development (as opposed to group functioning) is of prime importance. Further, any child whose development does not match the accepted ‘sequences of growth’ is immediately positioned as the other, in need of ‘special help’ for the apparent ‘developmental lags’. The danger with this is that in both teaching (and research) there is an:

…adoption of a somewhat deficit view of many children – those who have not reached a particular ‘universal’ milestone or achieved a nominated outcome, or those whose life experiences do not match those of the dominant culture. Thus, there is much concerning the diversity, complexity and richness of children’s lives that is overlooked. In an attempt to make children ‘fit the boxes’ of norms we may lose sight of what is really occurring in their lives (Robbins, 2003).

While it is acknowledged that Piaget has been unsurpassed in his influence on developmental psychology (Beilin, 1992), and highly influential in ideas early childhood education thought, increasingly challenges are being made to the concept of the ‘universality’ of childhood development as portrayed in Piagetian-inspired research (Robbins, 2003). Authors such as Alloway (1997), Cannella and Bailey (1999), Mayall (1999), Penn (2000) and Woodhead (2000) are drawing attention to
Name: Justine  
Observer: M.B.

### Physical Development:

<table>
<thead>
<tr>
<th>Date</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10/5</td>
<td>√ Runs with balance and control; can turn, start and stop easily</td>
</tr>
<tr>
<td></td>
<td>Alternates feet while climbing up and down a flight of stairs</td>
</tr>
<tr>
<td>8/5</td>
<td>√ Climbs up and down (e.g. ladders, jungle gyms, slides, trees)</td>
</tr>
<tr>
<td>10/5</td>
<td>√ Catches a large ball with two hands and extended arms</td>
</tr>
<tr>
<td></td>
<td>Takes a step forward when throwing a small ball overhand</td>
</tr>
<tr>
<td>12/5</td>
<td>X Uses pincer grip on pencil</td>
</tr>
<tr>
<td>12/5</td>
<td>X Cuts with scissors on or close to a line</td>
</tr>
</tbody>
</table>

**Figure 1: Example of Developmental Checklist Observation Tool (Adapted from Nicolson & Shipstead, 2002, p.167)**

The diversity and complexity of childhood. Further, they question the relevance for every child of all-embracing norms, knowledge and ‘truths’ which have been based on research conducted within Euro-North American or minority world contexts (Robbins, 2002).

Within the past decade there has been an escalating consideration of ‘other ways’ of thinking about children and their development, particularly from postmodern viewpoints (e.g., Canella & Bailey, 1999; Dahlberg, Moss & Pence, 1999; Grieshaber & Canella, 2001), and sociocultural perspectives (e.g., Anning, 2004;

Our Perspective on Sociocultural Observations

Rogoff’s (1998, 2003) writings on the cultural nature of human development were drawn upon to help us better understand how sociocultural theory represents a richer orientation than developmental theory for framing observations and planning for children. In particular, we have used Rogoff’s (2003) three foci of analysis, in which she examines a full data set firstly, from a personal perspective, then an interpersonal orientation, and finally a cultural or institutional perspective. Whilst the data set remains intact, the analyses brings into focus each of these dimensions, whilst at the same time holding the full data context within the background. As Rogoff argued:

> The child is fore-grounded, with information about him (or her) as an individual as the focus of analysis. At the same time, interpersonal and cultural-institutional information is available in the background. A general sense of interpersonal and cultural-institutional information is necessary to understand what this child is doing, although it does not need to be attended to in the same detail as the child’s efforts (Rogoff, 2003, p.56).

Rogoff (2003) argues that ‘the distinctions between what is in the foreground and what is in the background lie in our analysis and are not assumed to be separate entities in reality’ (Rogoff, 2003: 58). This contrasts significantly with making observing of each child and analysing each observation separately – putting the individual observations into individual folders. Greater understanding of the individuals is possible when the individual is thought of as participating in social relations and cultural activities.

Rogoff (2003) has also shown the importance of cultural factors in making sense of an observation. Rogoff (2003) has termed this cultural-institutional focus of analysis. As Rogoff (2003, p.60) suggested:

> …we see a glimpse of a moving picture involving the history of the activities and the transformations towards the future in which people and their communities engage’.
Rogoff’s (1998, 2003) notion of transformation of participation has been helpful in shifting the focus from assessing an end point in children’s activity, or their achievement (or not) of some ‘universal’ skill that the teacher might think is appropriate (rather than what a cultural group values), to their ongoing participation with others in contextually relevant activities. Rogoff (1998) describes transformation of participation as a process in which an individual develops through involvement in shared endeavours. The child/ren changing (developing) in order to be engaged in the situation at hand in ways that contribute both to the on-going activity and to the individual’s preparation for future involvement in similar events or activities.

Observations made of children that do not take into account the cultural factors strip richness from the observation and lead to a static representation of what is happening in a particular context under study. Using all three foci, personal, interpersonal and community or contextual, for observing children is fundamental to documenting how children move ‘through’ understanding, rather than ‘to’ understanding (Rogoff, 1998). If we are to have meaningful observations of children in our centres we need to employ all three foci for observing children.

**Study Design**

**Research Question**

In our work with pre-service early childhood teachers, we considered the use of Rogoff’s three foci of analysis (Rogoff, 1995, 1998) as a powerful tool for examining the taken-for-granted practices within early childhood education in Australia. In particular, we examined what had traditionally been privileged and what was regularly silenced as a result of the individualistic domains based perspectives on the observation and documentation of children’s learning and development. The focus of our research was to co-construct (Jordan, 2004) with student teachers a broader, more sociocultural reading of the way early childhood education is enacted within Australian centres. In particular, we adopted a participatory appropriation model in which students worked in the field and in the weekly tutorials in ways which foregrounded their growing understanding of the different cultural tools available to guide them to observe and plan for children’s learning. Students analysed not only the tools, but the data they gathered and discussed what was made visible and what was made possible through the use of particular cultural tools (eg individual domains, sociocultural perspectives, constructivist tools, etc).

**Participants**

Eighty final year students studying for a Bachelor of Early Childhood Education (4 year degree course) participated in the study; a cohort of 40 in 2002 and a cohort of 40 in 2003. The participants were mostly of white Anglo-Saxon origin living in an
urban community from the Eastern part of Australia. They were introduced to Rogoff's (1995, 1998) foci of analysis during the 13 weeks of lectures and tutorials associated with a teaching studies unit and a curriculum unit focusing on maths, science and technology, and were able to practice using these during their one day per week field placement, and subsequent four week teaching practicum placement. Students previously had extensive practice in observation from a developmental perspective and used these observations to inform their teaching.

Data Gathering

Data gathering took place during one university semester (approximately 13 weeks) in 2002 and again in 2003 with the second cohort. The data gathering included weekly tutorial tasks and student reflections (2 hours weekly, plus poster display and presentation), assignments (reflective essay and folio of observations and analyses), surveys (Week 2 and Week 7 in 2002, and Weeks 4, 8 and 12 in 2003) and follow-up interviews, as well as observations and reflections from the field placement of one day per week culminating in a four week block. Additional data were gathered through the documentation of the student teachers’ presentations of their own research findings to practising teachers and at a seminar centred on sociocultural theory.

Analysis

A sociocultural analysis of the data was undertaken in order to illuminate a sociocultural reading of the way early childhood education is enacted within Australian centres. The focus of the analysis contrasts with traditional developmental readings of early childhood practice, as suggested by Hedegaard (2002) when discussing van Oers (1999) work:

This change of view from conceptualising thinking as an exclusively cognitive activity to localising thinking in a social field and characterising it as a sociocultural activity has been widely accepted (Hedegaard, 2002, p.45).

In our research, particular emphasis was placed on examining how the student teachers (and the researchers) were able to broaden their analysis from concentrating only on the personal focus of analysis, with the unit of analysis remaining fixed on the individual to observing and analysing using all three foci concurrently. The data were examined to determine what would be revealed when the unit of analysis moved from the individual to the whole sociocultural context in which individuals were interacting. Within this paper, however, we have tended to provide material to demonstrate the students’ ‘new’ way of observing.
Findings: Beyond the Boxes

A richer picture of children and their learning

While each of these three foci, personal, interpersonal and community or contextual, can bring an aspect of an experience into focus (e.g. interpersonal issues), the other two remain present, allowing the observer to focus on different aspects of children’s participation in experiences. Thus, rather than simply presenting an account of an individual child’s level of development according to a given set of ‘norms’ in ‘ages and stages’, the focus was on how children’s abilities, interests and understandings change through participation in activities and experiences (personal focus). Second, attention can be paid to how interaction, collaboration, co-construction, scaffolding by and to others, communication, relationships and other interpersonal factors (including those of the observer) are assisting children’s participation in activities and experiences (interpersonal focus). Third, consideration can be given to the materials, equipment and artefacts with which the children are provided, the program goals, the philosophy and history of the centre and the teacher, and the ‘ways of behaving that are emphasised to the children, and so on (community focus)’ (Robbins, in preparation).

Consider, for example some of the richness revealed in the following observations, undertaken by fourth year early childhood student teachers studying the unit Maths, Science and Technology Education, in which they recorded and analysed their observations from a sociocultural perspective rather than domains based approach. The student teachers highlighted what they were able to interpret through applying three foci (which they refer as ‘lenses’ using Rogoff’s earlier term) – personal, interpersonal and contextual/institutional. Many of the students achieved a highly competent level of observation and analysis, but only a small sample of these have randomly been chosen from those provided by students who gave permission for us to use their work.

Observation 1: (TT)

Context: Four children are having their ‘snack time’ and are counting.

Whilst eating at the table C1 (child 1) comments on the colours on the chart (hanging on window, children’s favourite colours). The children pick names that they know and identify what colour is their favourite. C2 notices that there are more pink. I support this, commenting that pink is ‘the most’. And the children agree, with C3 saying that red has not many.
I ask him ‘Is that the least on the chart?’ and his reply is in agreement. But C2 says, ‘Nooo, orange is the least. See it has less than red.’

‘What about blue?’ I ask.

C1: ‘It’s more than red.’

C3: ‘And orange.’

C2: ‘It’s less than pink, too.’

C4: Turns to look, but doesn’t comment.

I reply, ‘That’s right, blue is the middle amount.’

C3: ‘Yeaha.’

Conversation continues and the children use the other group’s favourite colour chart to find the most/least/middle colours.

In a traditional approach this observation would probably have been analysed in a manner similar to the following:

C1: Recognises colours; recognises differences in sizes of groups; takes part in conversations with other children

C2: Recognises colours; recognises differences in sizes of groups; takes part in conversations with other children

C3: Recognises colours; recognises differences in sizes of groups; takes part in conversations with other children

C4: Is an onlooker – doesn’t join in with others.

However, in using a sociocultural approach the student teacher (TT) was able to make the following comments:

Interpretation
Personal lens: The children’s learning through participation is evident here as C3 is supported in identifying the middle and least amount.

Interpersonal lens: The collaborations and relationships between children assist and support each other in their discovery of the mathematical concepts of comparing.

Contextual lens: The learning is occurring within a meaningful, sociocultural context, is supported by myself, and is of interest to the children.
Note how in this contextualised interpretation there is a sense of the shared knowledge and shared learning that is developing while participating in this experience, rather than what an individual child knows at a particular point in time. It is significant also that no child has been labelled as deficient her/his behaviour. Compare this with ‘C4: Is an onlooker – doesn’t join in with others’ in the traditional method.

Observation 2: (IK)

Context: During indoor morning activities at blocks. (The) Floor is clear of all children as they are all at other activities. B has all the blocks to choose from on the shelves. (The written observation is supported by a series of photographs.)

“I am alerted to B’s decision to build by the loud banging of blocks as he pulls them all out of the shelves and throws them hastily on the floor. Once all the small blocks are on the floor B begins to stack them in a line adding to it in opposing angles gradually creating a square. As he adds the blocks he looks up at me and says: ‘Hey look! This line is longer than this line.’ When I ask him how he could tell he looks back at the blocks, then up at me and then back at the blocks once again. (Pause) Then he counts the blocks in each line and says, ‘This one is eight and this one is six.’ He then adds two more to the short one and says, ‘There! Eight and eight.’”

Using a traditional approach, this anecdote might have been interpreted thus:

B plays noisily with the blocks and does not show concern for others in the group. Can stack blocks and build a flat block enclosure. Counts to 8.

However, the student, IK, analysed this in the following, far more dynamic, manner:

Interpretation:
Personal perspective: B seems very motivated and sure of the play he intends to take part in. He does not timidly take out a few blocks and put them together, rather pulling out the bulk of them quite enthusiastically and quickly beginning to construct. He appears to be aware of length, pointing out the differences in his building lines independently and shows understanding of cardinal number in that he recognises each length as the last number counted.
Contextual perspective: This observation illustrates the teacher’s belief that children can play with materials they need to explore their interests (instead of pulling out only the blocks they know they will need). It also highlights that there is an importance on children directing their own play.

This interpretation very positively notes this child’s involvement, capturing his development in thinking as he participates in the experience. Further, the student is able to acknowledge that this has occurred within an environment where the teacher (and she, herself) has supported the child’s independence in learning, rather than directing the child’s learning.

Rogoff’s three foci of analysis thus allow observations to be far more vibrant, reflective and complex. The focus shifts from what an individual child in isolation can or can not do, to the dynamic interplay of pairs or groups of children, or children and adults, noting the scaffolding, supporting, extending, leading and following, et cetera, that occurs in any activity in which children participate. Without this, we run the risk of not only missing vital aspects that are helpful in understanding how both individuals and groups of children are learning and developing, but we also may quite possible ‘get it wrong’ in our interpretations, as we have noted above that Rogoff (2003) warned. Similarly, by omitting the contextual factors from observations, we are ignoring how all development occurs through the appropriation of particular cultural tools, and is embedded within specific cultural and community practices, values, beliefs, and histories. This, in turn, is more likely to lead to planning that is contextually appropriate and really makes a difference to children’s development.

New conceptual tools

As Rogoff (2003) powerfully states:

Understanding development from a sociocultural-historical perspective requires examination of the cultural nature of everyday life. This includes studying people’s use and transformation of cultural tools and technologies and their involvement in cultural traditions in the structures and institutions of family life and community practices Rogoff (2003, p.10).

The findings of this study have shown that for educators – be they student teachers, university academics or practising teachers – new conceptual tools are needed if different and more broadly bound readings of the enactment of early childhood practice is to take place. Introducing new curriculum such as Contours of Learning (Department of Education and Training, 2001) or Te Whariki (Ministry of Education,1999) providing new quality frameworks such as Quality
Improvement and Assurance System, or legislating for minimum standards (e.g. The Victorian Department of Human Services Regulations), all contribute towards framing inputs and outputs. However, when a particular perspective, such as DAP, is embedded in the psyche and knowledge base of the field, observations of children and their respective analyses will remain unchanged. In co-constructing new conceptual tools for observing and analysing children, teachers can begin to see with new eyes and to think differently about what they have observed. Sociocultural theory, and in particular Rogoff’s three lens of analysis, allow student teachers to move the unit of analysis beyond the individual. Through broadening the foci, student teachers were able to document thinking as a social process. As a result, teachers were able to examine shared cognition as located within the social context in which it was crafted and explored.

Embedded observations

A further important outcome of this study was the student teachers’ positioning within the observation process. Student teachers located themselves within the observation. Traditional practices in observing children and contemporary recording of children’s learning journeys have placed less emphasis on the role of the adult – in much the same way as Piagetian approaches saw the role of the teacher to support rather than co-construct learning (see Jordan, 2004 for a solid exposition on co-construction). Rather than the student teachers withdrawing themselves physically or mentally as distant observers of children, they located themselves within the observation. As active participants of the children’s learning, their interactions were embedded in the observations, and examined within the whole sociocultural context under study. Without locating the observer with those being observed, an unnatural context and therefore observation is created. The voices of the teachers were embedded in each of the observations recorded by the student teachers. The silencing of the teacher in traditional record keeping was noted by the student teachers. This approach to observing was actively resisted by the establishment, since the term ‘observations’ meant a particular practice and particular worldview. As Hedegaard (2002) states: “The meaning of the words is the result of many generations of use” (p. 52). With the average age of teachers in Australia now at approximately 45 years, there is a critical mass of staff who have undertaken observations of children as the silent observer for some twenty-five years. Using Rogoff’s three planes for observing and analysing children requires the active repositioning of oneself within the context of group rather than solitary framing of children or the child.

Conclusion

...language meaning has a built-in dialogue between several voices. The sentence construction reflects between whom this dialogue takes place. The crucial point here is that it is
nearly always possible to find several authors or voices in the same story. It requires, however, the listener to make an analysis in order to differentiate between the different voices. The narrator is now always conscious of the dialogues he embodies, or of whom his ‘partners’ are in his inner dialogues or in his formulation of opinions. (Hedegaard, 2002: 52).

Student teachers were able to take into account the intersection between children’s individual historical baggage and the institutional historical contexts in which situated activity was enacted. Rather than analysing an observation based solely on what was said between children, the student teachers reflected upon the centre policies, the nature of knowledge construction, such as science, mathematics and technology, and the taken for granted practices enshrined in early childhood education. Through also foregrounding the third focus, the student teachers made different interpretations of the observations they had gathered. Their analyses were more critical, contextual, embedded and suggested different planning experiences than if only the first focus had been used for observing and analysing.

Through the student teachers embedding themselves in their observations, they found through their analyses that they had become conscious of ‘their dialogues and how they may or may not be historically located’ as suggested by Hedegaard (2002). As such, the students took on board a level of critical reflection which allowed them to hear the different voices, to locate their narration within the whole sociocultural context under study, and to determine the historically embedded practices which shape or silence interactions and possibilities for children and teachers in early childhood education in Australia today. In essence, they had moved beyond ticking boxes, to developing and using sociocultural tools for observing and analysing children. New cultural tools provide new possibilities for practising teachers in the field and richer and meaningful observations and planning for children’s learning.

References


Robbins, J. (In preparation). Potted plants in the corner or participants in cultural communities? From domains based observations of individuals to an understanding of the sociocultural nature of development.


Acknowledgements

We very sincerely express our thanks to the students, TT, MM and IK, who kindly shared their observations and interpretations with us. We are also grateful for the opportunity to discuss related issues with Professor Barbara Rogoff, during her recent visit to Monash University, Peninsula Campus, Australia.

About the Authors

Marilyn Fleer is Professor of Early Childhood Education at Monash University.

Jill Robbins is Senior Lecturer in Early Childhood Education at Monash University.