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Assessing young children's learning: Using critical discourse analysis to re-examine a learning story

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The current policy contexts of many countries demand that early childhood educators are able to articulate their practice in new ways. For example, the need to assess and report positive learning outcomes in multiple ways to policy-makers, families and educational systems is a feature of contemporary early childhood education and care. This theoretical paper introduces a multi-dimensional framework to support the assessment of young children's learning and then provides an example of how modified tools drawn from Critical Discourse Analysis (CDA) can be used to effectively examine these dimensions of learning. CDA is a multidisciplinary methodology that integrates the study of language with a consideration of wider social practices. It offers a perspective from which to examine how ways of thinking, speaking, acting and being are drawn from, and also contribute to the particular discourses that are made available within social institutions (in this case, early childhood centres). CDA focuses on how language establishes and maintains social relationships and identities. This paper provides an example of how some of the tools made available in CDA can enhance assessment practices with young children. It is argued that CDA enables early childhood educators to re-examine young children's learning in new ways. The processes outlined in this paper have the potential to inspire early childhood educators to embrace assessment as an opportunity to articulate, celebrate and communicate young children's ways of knowing in new ways.

Introduction

The interest in, and political commitment to, early childhood education and care (ECEC) has increased in many countries in recent years (Lazzari, 2014). In this contemporary early childhood policy environment, policy-makers increasingly demand evidence that early childhood programs make a difference to young children's learning (Geoffroy et al., 2010). The increased policy interest is often driven by a social investment agenda, which sees ECEC as a way of addressing the social and economic crises facing many countries (Adamson & Brennan,

2014). As part of a social investment agenda, large-scale research studies are often seen to produce the most compelling 'evidence' regarding the effectiveness of ECEC funding, programs and interventions (e.g. Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2004).

Alongside this large-scale, evidence-based research, and often with different purposes, practice-based research is focused on 'developing research with all stakeholders—including practitioners, families, and local authorities, in order to nurture a new culture of childhood' (Lazzari, 2014, p. 429). Practice-based research has the potential to 'foreground the participation of children as competent human beings within ECEC institutions and as young citizens in society' (p. 429), and this intent provides the impetus for this paper. The primary intent of this paper is theoretical in that it provides examples of theoretical and practical tools that could potentially enhance practice-based approaches to the issue of assessment in the early years. Rather than drawing on empirical data, it is argued that some of the processes outlined here would be useful for future practitioner research and could provide a more nuanced discussion of children's learning than currently exists.

In this paper, some of the tools made available in Critical Discourse Analysis (CDA) are used to re-examine a learning story as an example of one of the most common assessment practices in early childhood settings. The paper begins with a brief consideration of CDA as both a theory and a method. The second section of the paper introduces a multi-dimensional framework for assessing young children's learning and then provides an example of CDA in use. The paper concludes with a summary of some of the implications for practice for both researchers and practicing early childhood educators.

Critical Discourse Analysis: A useful toolbox?

CDA explores the relationship between 'language, texts and discourses within educational institutions and identities' (Luke, 1997, p. 50). As a multi-disciplinary process, it offers a perspective from which to examine how ways of thinking, speaking, acting and being are drawn from, and also contribute to, the particular discourses that are made available within social institutions. I posit that CDA offers an approach that opens up new ways of seeing, understanding and critiquing the assessment practices that are so familiar to early childhood educators.

Critical Discourse Analysts are interested in both the form and the function of language: 'the hard and soft structures of language' (Rogers, 2004, p. 8). Rogers elaborates on these dimensions of language and adds that 'the hard structures include aspects of the linguistic system such as adjectives, nouns, and verbs. Soft structures focus on the function of language ... the ways language is being used. The task of the analysts involved describing, interpreting, and explaining' (p. 4) the relationship between these structures in the process of developing a better understanding of the productive power of language.

Analysis of texts involves examining how the linguistic resources that are used enact particular functions. In previous research (Krieg, 2008, 2010a) I have drawn from Halliday (1985), Gee (1992, 1996, 1999) and Fairclough's (1992a, 1992b, 2003) frameworks to study how the lexical and grammatical features of texts work together to achieve particular functions: to better understand the role of language in social institutions, and more particularly educational institutions. This paper provides an illustrative example of how some of the tools made available in CDA have potential to enhance the assessment of young children's learning.

As indicated above, CDA uses an eclectic range of analytic tools. The analysis of a learning story presented in this paper uses tools drawn from Systemic Functional Linguistics (SFL). SFL focuses on the function of language and 'starts at the social context and looks at how language both acts on and is constrained by this social context' (Rogers, 2004, p. 8). The analytic tools used in this paper do not attempt to replicate more detailed SFL studies, but demonstrate how modified tools drawn from the SFL field can be used to study the language used by early childhood educators. One of the underlying principles of SFL is its focus on language as a meaning-making system and that both the conscious and unconscious linguistic choices people make when using language to make meaning are limited choices: limited by access to repertoires made available through the social practices of which they are part. The analysis of the learning story example in this paper draws from SFL to examine the verbs used (in relation to both the child and the educator) as a starting point for considering the learning that is said to be occurring.

Following this focus on one of the elements of the text (the verbs), the analytical tools made available in MCA developed by Sacks, Schegloff and Jefferson (1974) are used to interpret the relationship between the text and the interactions between the people in the learning story. MCA focuses on the ways people use language to assign labels that act as organising principles in the social world. For example, in using the pronouns 'they' or 'those', an author/speaker establishes difference and distance between him/herself and 'others'. These pronouns signal that the author/speaker does not belong to the group of people he/she is discussing. One of the most pertinent implications of MCA theory to the analysis in this paper relates to the ways educators orient themselves to the category 'child' in the language used in the learning story. MCA enables closer examination of how teachers and children are positioned within assessment and learning discourses.

The concept of teachers as part of a 'paired' social activity is another important organising principle for the analytical work presented here, for teachers can be seen as one part of what is known as a Standard Relational Pair (SRP). Eglin and Hester (1992) defined SRP as a 'paired set of categories such that to mention one pair partner is to have the other "programmatically" present' (p. 244). For example, one cannot be categorised as a 'sister' unless one has at least one sibling and one cannot be categorised as a 'teacher' unless there is a 'student' or 'learner'. Paired relationships are very rarely symmetrical and Jayyusi's (1984) exploration of the asymmetric accounts of relational pairs is particularly relevant to this paper for it makes explicit how, in the paired relationship of teacher/child, there is often an imbalance of power: a hierarchy with the teacher assuming a position of power. The analysis presented in this paper uses an example of a learning story to focus on how the issue of asymmetry is played out in a teacher narrative.

Examining the ways children are positioned within assessment practices (in this case, a learning story) requires analytical tools that focus on the interrelationship between identities and discourses. The perception that teachers have of children and childhood underpins the relationships that are enacted. Cannella (1997) stresses the fact that our choices about who we think the child is have enormous significance or 'productive power' (p. 43). As she says, these choices define the pedagogical work that adults and children do in these institutions. Using concepts drawn from both MCA and SRP theory enables us to examine how social categorisation locks discourses (and identities) into place.

The complexities of assessment: Learning as a multi-dimensional process

The choices that educators make in the practice of assessment are complex and involve ‘moral decisions regarding the purposes of education and the interests of children’ (Drummond, 2003, p. 12). Drummond describes the complexity of assessing young children’s learning effectively in the following extract:

When we work with children, when we play and experiment and talk with them, when we watch them and everything they do, we are witnessing a fascinating and inspiring process: we are seeing them learn. As we think about what we see, and try to understand it, we have embarked on the process ... called ‘assessment’ (2003, p. 13).

One of the choices early childhood educators make in the assessment of young children’s learning is deciding ‘What should be assessed?’ (McLachlan, Edwards, Margrain & McLean, 2013). In response to this question, McLachlan et al. offer three alternative ‘ways of understanding children’s learning dispositions: schema, skills and competencies’ (p. 90). In a similar attempt to define ‘what’ should be assessed, Carr and Lee (2013) use the concept of a ‘split frame’ to demonstrate the interrelationship between knowledge/s and the dispositional processes involved in learning. These authors argue that this split-frame approach is required for analysing narratives of children’s learning because it highlights ‘the interrelationship of “content” knowledge [and the development of it] and “dispositional” knowledge’ (p. 130). These perspectives form a basis from which to consider the framework introduced in this paper.

Building on both these approaches to understanding young children’s learning, and as a result of professional discussions with many early childhood colleagues over time, the following framework is offered as an expansion of the perspectives described above to also include: *Dispositions, ‘The idea’, Relationships, Communication* and lastly *Intellectual work*. This paper will examine the usefulness of this framework and whether the tools made available in CDA facilitate focused attention to these dimensions.

While it is beyond the scope of this paper to examine each of these dimensions extensively, it is possible to signal some important aspects of some. For example, the 'dispositional, relational and communicative' dimensions of young children's learning are underpinned by an extensive body of research (e.g. Katz, 1988, 1993, 2008; Perkins, Jay & Tishman, 1993). This research has meant that early childhood educators are able to identify and articulate these aspects of learning very explicitly, often referring to the children's capacities and demonstrations of kindness, responsibility, empathy, curiosity, persistence and resourcefulness in their analyses of young children's learning.

Carr and Lee (2013) argue that 'dispositions act as an affective and cultural filter for the development of increasingly complex knowledge and skills' (p. 15). For example, children will be curious about and 'notice' different features of their world than other children in very different social circumstances. The adults (and children) in their worlds will be drawing attention, talking about and using different 'cultural tools' (Vygotsky, 1986) to explore and understand their social and physical environments. In this paper, it is argued that the complexity of the knowledge that young children are exploring and constructing through their play, interactions with others, observations and experimentation involves ongoing engagement with 'ideas'. 'The idea' dimension in the framework introduced in this paper refers to the conceptual understandings children are developing: concepts such as size, quantity, time, movement and change. These concepts are often articulated in learning or 'subject' areas such as mathematics, science, the arts, history etc. Therefore, in the framework presented here, the dimension named 'The idea' is underpinned by research into the appropriateness and relevance of 'subject knowledge' in early childhood education. In this respect, the paper takes its place alongside the research re-conceptualising the place of subject or learning area knowledge in early childhood pedagogy (Hedges, 2014; Hedges & Cullen, 2005; Krieg, 2011, 2013; Siraj-Blatchford, Sylva, Muttock, Gilden & Bell, 2002).

Examining the dimension named 'Intellectual work' draws from the work of Lillian Katz (2016) who states that 'it would be helpful for those of us who fulfil many different professional roles in the field of early education to adopt the habit of making a clear distinction between *academic* and *intellectual* aspects of development' rather than the more general term 'cognitive aspects of behaviour' (p. 171). Katz argues that almost all young children's behaviour

has a cognitive element. For example, sharing a toy can be viewed as requiring a cognitive process. However Katz contends that this cognitive element must be distinguished from academic (which she describes as mastery of relatively 'small and discrete' elements of information such as learning the names of the days of the week) and 'intellectual' goals such as 'reasoning, predicting, analysing, questioning and other aesthetic and moral sensibilities' (p. 171). The brief discussion above regarding some of the dimensions of young children's learning is expanded in the analytical processes that are described in the second half of the paper regarding learning stories as assessment.

Stories and moments that stay with us

In my roles as an educational leader and researcher I have often used a process drawn from Ilfeld's (1999) work with the Bernard van Leer Foundation as a way of exploring early childhood educators' values through narrative. The process begins with educators searching their repertoire of memories to locate a particular 'moment' in their work with young children. The instructions are simple:

Think of a moment that happened some time recent or past in your work with young children when you thought: 'this child or these children are really learning'.

Write this story and try to keep to 100–150 words

As stated, the framing and rationale for this task draws from the work of the Bernard van Leer Foundation (Ilfeld, 1999). As Ilfeld argues:

All of us who work in ECEC, whatever our professional role, have such moments stored either consciously or subliminally in our mental map of meaning ... they offer important doorways into understanding experience in all its complexity (p. 20).

Furthermore, the stories we choose to tell 'reflect our value system, and can reveal our prejudices, emphases and affinities and often influence our decisions whether we are aware or not' (p. 20). Finally (and most relevant to the discussion regarding assessment practices), 'such stories help to explain the professional and personal choices we are making' (p. 20). Re-

examining learning stories is thus a way of tapping into the values that early childhood educators hold in relation to young children's learning.

Researching learning stories: Moving beyond description to analysis

Drawing on Ilfeld's concepts, learning stories can be considered as conscious descriptions of particular events and moments that early childhood educators regard as significant. As such, they are 'touchstones' of values. The premise of the work presented in this paper is that:

the experiences of children, families and communities are coded, stored, and couched in language—both in the language we use to tell our stories, and in the symbolic, mental shorthand language we each use to store our understanding (Ilfeld, 1999, p. 21).

However, in order to explore the way language does its 'storage', we require tools to crack the code open and examine it in different ways. Ilfeld's (1999) principle that 'stories can offer us a way to break through limited and patterned thinking if we learn how to "research" and mine our own understanding in more depth' (p.21) is the basis of this paper. I argue that CDA offers useful tools with which to do this research.

While the literacy skills of early childhood educators may vary considerably, in my experience it has been rare to find anyone without the capacity to write a learning story: a simple narrative that includes the basic structure of sentences with nouns, pronouns and verbs. Therefore, sometimes with a little prompting about what constitutes a 'verb', the first analytic strategy involves educators identifying the verbs that are associated with the children in their learning story. In CDA terminology, this strategy focuses on the 'hard' structure of language in that it isolates a particular type of grammatical feature: the verb.

For the purposes of this paper, I illustrate this process with an example from Carr and Lee's (2013) book *Learning stories* (p.94). As indicated previously, this example is used because the learning stories from many professional learning sessions I have facilitated have not been retained for research purposes. In the example below, the verbs associated with Christina are underlined.

The title of the learning story is 'Christina's learning experience'

Today when we all were at the playground, Christina was very interested in the slide. She first observed the other children for a long time, as they climbed up the ladder and then happily slid down. But she did not yet fully trust herself to approach the seemingly large object. I watched Christina and could see that she was both fascinated and overwhelmed by the size of the slide; however, after a few minutes, she decided to take a step towards the mysterious slide. At first, she climbed up the ladder timidly and unsteadily. Once she reached the top, I could sense her insecurity, as she realised that, no matter what, she now had to slide down. She mustered all her courage, sat on the slide and slid down. As she reached the ground, she was relieved but also full of joy at having overcome her initial scepticism and having had so much fun. After this achievement, the slide was her favourite place of the day. Each time she slid down, she was just as excited as she had been the first time. Christina learned to overcome her fears. She had a sense of achievement and had a great time!

Many of the verbs used in this learning story provide information regarding early childhood educators' views of children and learning. There are many verbs involving physical activity (a feature of young children's outdoor play). The relationship between activities (denoted by verbs), social situations and identities is made explicit by the verbs—here the social situation is outdoor play and Christina's identity is created by the verbs denoting physical activity (and as we shall see, her emotional capacities). Silverman (2001) contends that many kinds of activities are common-sensically associated with certain social categories, and often, in identifying the activity, we may imply a social identity. Sacks (as cited in Silverman, 2001), refers to the activities which imply identities as 'category bound activities' and learning stories create these very explicitly. To illustrate Silverman's point: is 'climbing a slide' (in an educational environment) typically associated with an adult? Although not impossible to imagine an adult tentatively climbing a large slippery dip, it is difficult to imagine an adult in this educational situation, playing outdoors with a group of other adults on play equipment! Reversing the categorisation work that is done by the verbs here, it is also difficult to imagine Christina 'observing' the adult climbing, 'sensing' the hesitancy and tentativeness of the adult's attempts. The verbs used in the narrative create a 'child' identity, a physically active Christina who is making decisions about her physical skills and limits. The adult is an observer.

Derewianka's (2011) summary of the different types of verbs is a useful resource with which to continue the analysis of the Christina learning story. The summary makes explicit the idea that not all verbs are the same and this concept (along with examples) supports a more nuanced interpretation of the learning that is occurring. Derewianka outlines the different verb groups as: 'Action' verbs, these are the most easily recognised (e.g. 'climbing' in the Christina narrative). Derewianka also identifies many 'Saying' verbs such as 'asking, talking, explaining, telling' as a second verb group (there are none in the Christina story). The 'Sensing' verbs (indicating mental processes) include Christina's 'observing', 'realising' 'deciding' processes. 'Relating' verbs, as indicated by Derewianka (2011), link information and can include 'was, became, grew, seem, mean', for example Christina *had* a sense of achievement. Lastly, there are the 'existing' verbs that simply describe a state and include 'is, was, were', for example Christina *was* very interested. Understanding some of the different verb groups outlined by Derewianka thus not only assists a clearer articulation of the dimensions of learning that are occurring in this learning story but also clarifies some of the reciprocal relationships between educators and children that the educator remembered and documented.

Constructing learning and the learner through narrative

Close analysis of the linguistic resources used in this learning story identifies significant aspects of pedagogy, identities and knowledge. The verbs (and adjectives) associated with Christina provide many indicators of dispositional dimensions of learning. For example, the educator has used the words 'interested, trust, fascinated, overwhelmed and excited' in this brief narrative.

The dispositional verbs we have identified in the Christina learning story resonate with those presented by McLachlan et al. (2013, p. 93) in their comparison of the relative importance of dispositions in the early years' curricula of New Zealand (Ministry of Education, New Zealand 1996) and Australia (DEEWR, 2009). For example 'trust' is listed in the McLachlan et al. overview, 'fascinated' and 'excited' from the Christina narrative resonate with the word 'passionate' in the McLachlan et al. overview and Christina 'mustering her courage' is an example of the 'courage' listed in their analysis of curricula.

The importance of the dispositional dimension of learning cannot be underestimated and in the Australian context is re-iterated in the guide for teaching and assessment in the early years *Reflect, Respect and Relate* (DEEWR, 2010), with the goal that 'children develop dispositions for learning such as curiosity, cooperation, confidence, creativity, commitment, enthusiasm, persistence, imagination and reflexivity' (p. 34). The analysis of the language used in the Christina learning story has emphasised the importance of dispositional dimensions of learning and made some of these dispositions explicit.

The verbs associated with 'The idea' or content of many early childhood learning stories are often harder to identify in early learning narratives. In the Christina learning story written above, the verbs, 'climbed' and 'slid' indicate that Christina was exploring her spatial awareness of height, size and possibly gravity. The analysis of the learning event by Christina's teacher does not make explicit this aspect of Christina's learning but does identify that Christina is primarily learning about her own emotional capabilities, signalled by the adjectives and verbs 'overwhelmed', 'trust' and 'relieved'. The story concludes with the statement that 'Christina learned to overcome her fears' and 'she had a great sense of achievement' (p. 94). The emphasis is on Christina's individual capabilities and emotional development.

Although this story is primarily concerned with Christina's confidence and growth as a learner, I suggest that a focus on the ideas she was exploring could have sustained, enhanced and extended her thinking further (and informed the educator's planning). The concepts of 'up' 'down' and 'top', signal that height, size and distance were the aspects of the physical world that were challenging and interesting Christina. Capitalising on this interest and planning what might extend Christina's thinking further in future could lead to the 'shared, sustained thinking' (SST) (Siraj-Blatchford et al., 2002) that characterises effective teaching in the early years.

Siraj-Blatchford and colleagues' research suggests that 'different pedagogic techniques are often required to make different forms of knowledge, skill and understanding accessible to young children' (p. 7). From a social justice perspective, this 'access' to different forms of knowledge is particularly important for children experiencing disadvantaged social circumstances (Hilferty, Redmond & Katz, 2010). This is because SST enables the educator to connect with the child's thinking through a shared experience that is not dependent on family

resources or previous opportunities. This process involves extending and enhancing the child's thinking using different techniques such as modelling, questioning, elaborating and often drawing on learning area or subject concepts and methods of inquiry to do this pedagogical work. In the contemporary Australian early learning environment, characterised by widening inequity in young children's early experiences (Edwards, Baxter, Smart, Sanson & Hayes, 2009), I posit that paying attention to 'The idea' in this learning event is as important as the attention given to Christina's actions and dispositions and that using tools drawn from CDA has drawn attention to this significant aspect of learning.

The teaching and learning that is occurring in this learning story are denoted by the verbs regarding 'relationships'. The word 'observing' signals that Christina is aware that she can learn from her peers, she is observing the other children on the slide. In many other examples of learning stories I have studied, 'relationship' verbs include many actions such as 'sharing, responding, giving and waiting'. In analysing the relationship dimension, it is important to identify verbs where the child is learning *in collaboration* with others or whether the child is learning alone. Comparing actions that could be described as *interactive* alongside those that could be carried out alone, as an individual process, is an important aspect of the analysis.

The 'Communication' dimension of learning in narratives often includes words such as 'asking, talking, explaining' and 'telling'. In Christina's story, there is very little indication of communication. The teacher 'senses' Christina's emotional state and the narrative is written without reference to any dialogue. It seems that communication is non-verbal and the teacher plays an important role in interpreting what she/he is observing.

Of the identity positions implied in this learning story, many relate to intellectual processes. Verbs such as 'decided, realised, learned' imply an intellectually competent person, able to comprehend, make decisions and synthesise ideas. To use Carr and Lee's (2013) framework, Christina is 'ready, willing and able' (p. 17) to use her thinking dispositions in the intellectual work she does in this learning moment.

Thus the focus on the verbs associated with Christina in this learning story has drawn attention to the different dimensions of learning, opened up possibilities for celebrating the complexity of young children’s learning and demonstrated the potential for SST.

Group analysis

In the professional learning situations I have facilitated, following this initial ‘run’ at the analysis of each individual learning story focused on the verbs, individual lists of verbs are shared in each small group and common verbs associated with the children are collated into a ‘group list’. Each table group then shares their verbs with the whole group and as these are read aloud other groups identify any commonality with their lists. The result is an extensive list of verbs that provide a nuanced picture of the complexity of young children’s learning. The framework discussed previously (dispositions, ‘The idea’, etc.) is useful for categorising these verbs (and often identifying gaps and silences in multiple learning stories). The following table presents examples of the types of verbs generated from one group. **Ethics approval was sought and given in order to share this data.** The following list and categorisation provides an example of the outcomes of this stage of the process.

Table 1. Categorisation of common verbs

Dispositions	Practising, observing, persisting, trialling, enjoying, focusing
The idea	Counting (quantity), building (design and technology), growing/planting (science, history: change over time), calculating (mathematics)
Relationships	Sharing, responding, giving, waiting
Communication	Replying, commenting, explaining, indicating, listening, telling
Intellectual work	Thinking, noticing, calculating, trialling, making connections, comparing,

	choosing, testing, concentrating, questioning, explaining
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The reciprocal relationships between teachers and learners

In order to examine how a learning story both reflects and constitutes educators' work and the relationships between adult and child, a second phase of the analysis involves considering how the adults are positioned in the 'learning moment' narratives. Each of the verbs associated with the educators is identified. Using the Christina example, I have illustrated this technique by outlining the verbs associated with the educator in boxes below.

Today when we all were at the playground, Christina was very interested in the slide. She first observed the other children for a long time, as they climbed up the ladder and then happily slid down. But she did not yet fully trust herself to approach the seemingly large object. I watched Christina and could see that she was both fascinated and overwhelmed by the size of the slide; however, after a few minutes, she decided to take a step towards the mysterious slide. At first, she climbed up the ladder timidly and unsteadily. Once she reached the top, I could sense her insecurity, as she realised that, not matter what, she now had to slide down. She mustered all her courage, sat on the slide and slid down. As she reached the ground, she was relieved but also full of joy at having overcome her initial scepticism and having had so much fun. After this achievement, the slide was her favourite place of the day. Each time she slid down, she was just as excited, as she had been the first time. Christina learned to overcome her fears. She had a sense of achievement and had a great time!

The three verbs associated with the adult in the Christina story are 'watched, see and sense'. The verbs 'watched' and 'sense' contribute to a picture of the adult as a supporter of the learning process, as distinct from any intentional teaching role. Furthermore, utilising the Derewianka (2011) description, these verbs associated with the educator are 'relating' verbs: they are actions carried out in relation to someone else (the child). Using Eglin and Hester's (1992) concept of a SRP, the adult here is positioned as the knowledgeable and experienced part of this pairing providing the commentary and interpretation of Christina's explorations.

The verbs 'watched, see and sense' communicate important aspects of teaching in early childhood. The linguistic resources used here contribute to a picture of the early childhood educator primarily observing and responding to each child's development and interests. The stimulus for change or learning is thus seen to be located within the child. The amount, timing and purpose of teacher intervention in the learning process within this developmental paradigm are uncertain.

Teaching informed by child development theory is viewed as primarily responsive to the child's activities (Spatig, 2005). As has been argued previously, while child development theory has contributed to progressive educational ideas with its emphasis on exploration, investigation and active learning, its dominance has also limited the consideration of alternative sources of knowledge and learning stimuli to guide teaching and learning in the early years (Krieg, 2010b). For example, the educator's own content knowledge has been demonstrated to be an important feature of effective pedagogy in the early years, but the place of content knowledge in early childhood practice remains contentious (Hedges & Cullen, 2005; Krieg, 2011). To illustrate, Christina's conceptual understandings of height could have been extended and enhanced had the educator used vocabulary (and examples) drawn from his/her own mathematical knowledge of space (high, low, down, up) or gravity (using 'physics' vocabulary such as 'pull' or 'gravity') to support Christina's understanding and experience of sliding. The CDA analysis of Christina's learning story has provided evidence of the educator working in particular ways: watching and sensing what Christina is doing. Perhaps the analysis has also opened up new potential for teacher-initiated interactions to support Christina's learning.

Conclusion

Analysing the linguistic resources educators' use in written learning stories provides a window into the learning (and teaching) they value. The analysis of the array of verbs used to describe Christina's learning has resulted in new insights into children's learning and pedagogy. The multi-dimensional framework introduced in the paper offers a categorisation process that provides the opportunity to identify common emphases and some silences in descriptions of children's learning. The emphasis on dispositional, relational, communicative learning that is evident in the verbs in the Christina story demonstrated that 'there is a close and necessary relationship between what we choose to assess and what we value most in the education of our children' (Shipman, 1997, as cited in Drummond, 2008 p. 4). However, the omission of any mention of the 'ideas' Christina was exploring provides the opportunity to re-consider this

dimension in future learning events.

In conclusion, this paper provides an example of how CDA can open up new ways of seeing early childhood assessment practices. It has argued that CDA enables early childhood educators to re-examine young children's learning in multiple ways from different perspectives and that the theoretical and analytic tools made available in CDA enable early childhood educators to see practice differently.

Finally, it is important to recognise that in writing narrative learning stories, writers do not intentionally set out to 'construct' the children, themselves, or learning in particular ways. However, the linguistic resources used (consciously and unconsciously) enable language to do that work. CDA offers the tools with which to examine the power of language and in the process to address the situation described by Foucault who says 'people know what they do; they frequently know why they do what they do; but what they don't know is what they do, does' (XX, year, as cited in Dreyfus & Rabinow, 1982, p. 187). Perhaps this re-analysis of a learning story had led to a greater awareness of the powerful ways language does its work in constructing early childhood teaching and teachers, children and learning.

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