

# Journal of Early Childhood Research

<http://ecr.sagepub.com>

---

**mediated discourse analysis: researching young children's non-verbal interactions as social practice**

Karen E. Wohlwend

*Journal of Early Childhood Research* 2009; 7; 228

DOI: 10.1177/1476718X09336950

The online version of this article can be found at:  
<http://ecr.sagepub.com/cgi/content/abstract/7/3/228>

---

Published by:



<http://www.sagepublications.com>

**Additional services and information for *Journal of Early Childhood Research* can be found at:**

**Email Alerts:** <http://ecr.sagepub.com/cgi/alerts>

**Subscriptions:** <http://ecr.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.co.uk/journalsPermissions.nav>

**Citations** <http://ecr.sagepub.com/cgi/content/refs/7/3/228>



# mediated discourse analysis: researching young children's non-verbal interactions as social practice

---

Karen E. Wohlwend

*Indiana University, USA*

## ABSTRACT

Young children often use actions rather than talk as they interact with objects and each other to strategically shape the social, material, and cultural environment. New dynamic research designs and methods are needed to capture the collaborative learning and social positioning achieved through children's non-verbal interactions. Mediated discourse analysis (MDA), a hybrid ethnographic/sociolinguistic approach rooted in cultural-historical activity and practice theories, analyzes mediated actions with objects. A three-year ethnographic study of children's literacy play illustrates the five-stage process in MDA research design that resulted in microanalysis of children's activity with social practices, positioning and spaces that included and excluded peers.

**KEYWORDS** *cultural historical activity theory, mediated discourse analysis, methodology, participation, peer culture, social practice*

---

## introduction

Increasingly, qualitative researchers aim to understand the complexity of lived experiences in early childhood by considering young children's perspectives and consulting them as collaborative research participants. Research goals that honor children's voices require thoughtful consideration of procedural issues that takes into account the complexity of communicating with very young participants (Dockett and Perry, 2007). Research attempts to access emic perspectives and to situate children's activity culturally and historically that use interviews with children depend upon verbal communication. However, young children

---

journal of **early childhood research**

© The Author(s), 2009. Reprints and permissions:

<http://www.sagepub.co.uk/journalsPermissions.nav>

Vol 7(3) 228–243 [ISSN 1476-718X DOI: 10.1177/1476718X09336950]

may not literally 'voice' their knowledge, concerns, and purposes; they often use non-verbal modes to interact with objects and each other to strategically influence the social, material, and cultural environment (Kress, 1997, 2003). Dynamic new methodologies and methods of research are needed to capture the inventive processes and collaborative learning that occurs through children's non-verbal interactions with materials, meanings, and each other.

One promising approach for early childhood research is *mediated discourse analysis* (MDA), a hybrid ethnographic/sociolinguistic research approach rooted in cultural-historical activity theory (Leont'ev, 1978; Vygotsky, 1935/1978) in psychology and practice theory (Bourdieu, 1977) in sociology. MDA is uniquely suited to understanding the cultural meanings and social effects of children's non-verbal actions with materials. Ron Scollon (2001) developed MDA as he sought to understand how toddlers learn the various meanings for the physical action of *handing* an object to another. For example, handing money to a cashier means something different than handing a birthday present to a friend and produces a different material effect: the first action results in a bidirectional exchange of goods while the second action is unidirectional with no object expected in return. Such physical actions happen non-verbally and automatically, eliciting automatic cooperation from others through simple routines that become customary among a group of people. In this article, a three-year ethnographic study of children's literacy play illustrates the five-stage process in MDA research design that resulted in microanalysis of children's activity that revealed how children used social practices to position each other inside and outside inclusive classroom spaces that blended peer and school cultures.

## **theoretical framework**

### **mediated discourse**

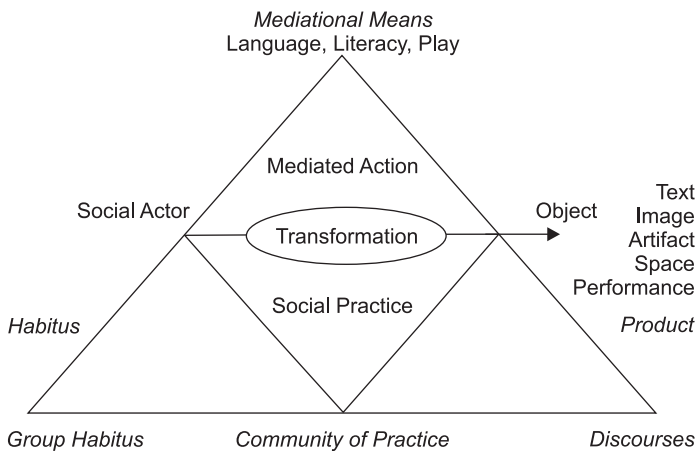
Cultural-historical activity theory (Leont'ev, 1978) shows promise as a theoretical basis for investigating current issues in early childhood education (Edwards, 2007). Mediation, the central tenet of Vygotsky's (1935/1978) cultural-historical theory of language learning, is literally action with media, or tools, to make the meanings of lived experiences more accessible and comprehensible (Wertsch, 1991). Mediation explains how individuals learn the ways of the surrounding culture through apprenticeships in communities of practice (Lave and Wenger, 1991). In sociocultural interpretations of learning and development, children learn to participate in a community's Discourse (Gee, 1996), or the valued ways of 'doing and being', through guided participation (Rogoff, 1995) that teaches them to mediate the surrounding environment using culturally given tools. Thus, cultural learning depends upon mentor/novice relationships. Every cultural function appears first between people (on the interpersonal plane) then is

transformed within the individual (intrapsychologically) resulting in an inner set of tools for independent mediation. Through mediated discourse, children learn to mediate the world by collaborating with peers or teachers who help them to use systems of signs and symbols to interpret and represent meanings that make sense within the cultural context. The meanings as well as the means for mediation are ultimately internalized, or in more agentic interpretations, *appropriated* (Rogoff, 1995). *Mediational means* (Wertsch, 1991) are the basis of MDA. A mediational means represents an abstract way of making meaning – a cultural tool – that people use to participate in a set of social practices (e.g. writing, drawing, playing) with material instruments (e.g. pencil, crayons, puppets) and surfaces (e.g. paper, puppet stage) for crafting messages. Because social practices rarely occur in isolation (Scollon, 2001), any given activity often combines several mediated actions. For example in some classrooms, as children engage with the mediational means of writing, they are expected to hold a pencil with a prescribed grip, to form letters with a particular set of strokes, to gaze at one's paper, and to refrain from talking to each other.

## social practice

An activity model (see Figure 1) explains how social actors use mediational means to transform mediated actions into social practices. Mediational means such as language attach meaning to action by connecting a mediated action – a specific physical act with material objects that results in a product such as an artifact or performance – to the universe of existing histories of social practices among a group of people. Often, we are only partially aware of the social actions that we take up and accumulate as part of a set of internalized dispositions

**figure 1** an activity model of early literacy apprenticeship



and nearly automatic practices that makes up habitus (Bourdieu, 1977). We engage in everyday activities without noticing the ways in which our actions signal cumulative social practices and cultural values embedded in our group habitus, collective histories of shared practices that are expected in the groups to which we belong. Dense intersections of valued and expected practices form *nexus of practice* (Scollon, 2001), producing the naturalized ways of 'doing and being' that signal our membership to certain groups or Discourses (Gee, 2005) (see Figure 1).

## peer culture

Access to mediational means and materials vary according to official and unofficial spaces in early childhood classrooms (Dyson, 2001). Anne Haas Dyson's (1989, 1993, 1997, 2003) extensive work makes clear that young children's literacy development depends upon their ability to manage literacy tools in two worlds: *school culture* fills the official space with the activities, materials, and instruction provided by the teacher that support institutional curricular goals, classroom rules, and student learning; *peer culture* operates in the unofficial space – often at cross-purposes with official school culture – as a 'stable set of activities or routines, artifacts, values, and concerns that children produce and share in interaction with peers' (Corsaro and Eder, 1990: 197). Anthropological research (Kyratzis, 2004) identifies six participatory goals as major concerns in peer cultures; five are salient for young children: 1) constructing a gendered identity, 2) resisting adult culture, 3) reconstructing ethnicities to belong, 4) protecting interactive space by bonding through inclusion, and 5) exercising power over others through exclusion. These goals provide a starting point for examining social practices from a child's point of view and for examining peer culture as one context that organizes nexus of practice in early childhood classrooms; that is, for examination of the social groups and purposes that children value and maintain through practices with non-verbal mediational means (e.g. design, drawing, and play).

## description of relationship between methods and results

In the following sections, I describe the research procedures for MDA in the context of a three-year ethnographic study of literacy play in early childhood classrooms in the Midwest United States. Description of the classroom context and data excerpts from the results will illustrate how a recursive process of data collection and analysis in MDA generates further inquiry and shapes the next stage of investigation. Microanalysis of the final stage of a four-step funnel design revealed how non-verbal actions constituted social practices that transformed the meanings of materials and shaped children's classroom participation.

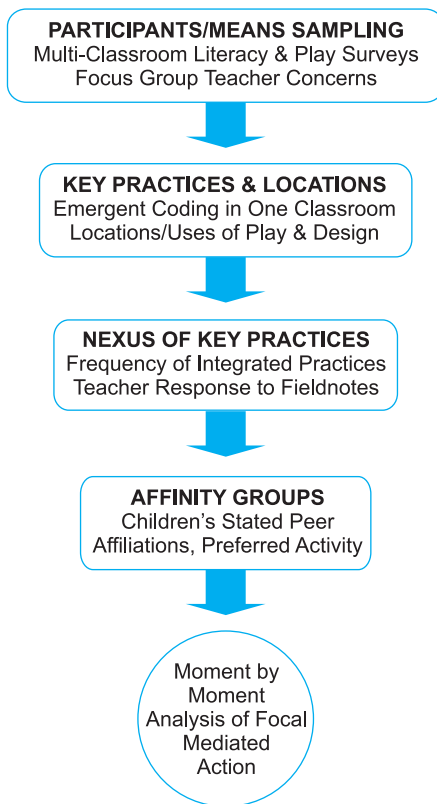
## mediated discourse analysis

In MDA, four filters organize ethnographic data collection and locate the most significant practices with relevance to a specific community (Scollon and Scollon, 2004). Consistent with processes for enhancing validity in ethnographic and qualitative research, each step is cross-checked against members' views, researcher observations, individual cases that confirm or disconfirm findings, and reflective 'playback' of previously collected data. Figure 2 shows how methods of ethnographic data collection correspond to each filter in Scollon's funnel design that located key moments for microanalysis of language and action.

### filter one: participant sampling and key mediational means

The first filter located key groups of participants and the mediational means and issues that they identified as most significant. I searched for early childhood

**figure 2** filters in MDA: process of locating focal mediated actions



Source: Excerpted and adapted from Scollon's (2001) larger four filter model.

classrooms with ample opportunities for peer culture to operate through regular in-class play periods. I used network sampling: knowledgeable informants in three cities in the US Midwest were asked to recommend participants likely to meet the research criteria (Merriam, 1998). Informants included kindergarten and first grade teachers, principals, early literacy professors at two universities, and a regional mentor for National Board certification in early childhood. These informants recommended seven kindergarten classrooms in three public elementary schools: the most frequently recommended school was locally recognized for learner-centered curriculum, I asked focus groups of early childhood teachers in this school to view, categorize, and discuss videotaped instances of children's classroom activity. Their discussions identified literacy and play as key mediational means in their classrooms and raised issues related to conflicting pressures to implement more work or play in schools (Wohlwend, 2007b). The focus group clarified the following two-pronged research question:

- How might play-integrated practices in early childhood classrooms
- count as literacy using expanded notions of texts?
  - expand and/or restrict children's participation in an early childhood learning community?

Classroom environment surveys (i.e. print-rich scales, Loughlin and Martin, 1987; Wolfersberger et al., 2004; and a 'play-rich' checklist that I developed to document the amount and variety of play materials, the number of play-infused centers, the degree of learner choice, etc.) quantified and compared data from the seven classrooms: informal teacher interviews, videotapes, digital photographs, classroom artifacts, posted daily schedules, classroom maps, and work samples (Wohlwend, 2007a). Comparison across the three selection instruments identified the highest-scoring classroom and validated the selection of one classroom as not only the most print-rich and play-rich, but also as the best site with regular, sustained, and play-integrated learning (three daily 45-minute periods of uninterrupted literacy play).

There were 21 five- and six-year-olds in Abbie Howard's kindergarten (all names are pseudonyms), the classroom selected for extended case study through one year of weekly visits. Although the majority of children were White monolingual English speakers, the class was far more diverse than typical classrooms in this primarily rural state, including eight English Language Learners whose first language was Chinese, Arabic, Spanish, Tagalog, or Russian. In the following vignette, I describe Abbie and her classroom to provide a window into a typical day.

'I have something to tell you, so listen carefully.' Lilted snippets of invented song like this float around the room all through the morning, as Abbie catches children's attention for a moment and then relinquishes it just as quickly so that they can resume their projects. From the moment the children enter the classroom, they continually

select from a range of choices to map out a unique learning path for themselves each day. Once the plan for the day is settled, Abbie perches on the edge of an oversized oak rocker for shared reading of poems, songs, and a featured big book on the adjacent story easel. Abbie briefly introduces Literacy Centers, a 30-minute period of adult-supported activity when children work on literacy and inquiry activities in four small groups led by an adult. During the next period, Writers' Workshop, children work on projects collected in their writing folders or stories in their journals. The final period in the morning, ChoiceTime, includes most of literacy center areas and others as well: blocks, math, snacks, house corner, and the dollhouse. Literacy Center and Choice Time activities usually offer opportunities to blend literacy, play, and design through inquiry explorations such as staining and washing fabric, weaving, and paper-making.

### **filter two: scene observation to identify key practices and classroom locations**

The second filter in MDA required careful observation of the scenes where participants used mediational means. I compared areas of the classroom in the first weeks, noting the center locations where children engaged in play, design, and literacy in Abbie's classroom. I used participant observation augmented by video-tape recording, fieldnotes, and mapping to collect data about each center location (e.g. furniture, books, paper, toys, writing instruments, displays, storage) and children's interactions as they engage in play-integrated curricular activities (e.g. writing workshop, literacy choice centers, inquiry workshop, free play centers). The house center, dollhouse, art center, writing table, and book nook (classroom library) emerged as focal scenes. To enable thick description (Geertz, 1973) of children's mediated actions, I documented activity within the classroom through a mix of data sources including fieldnotes, digital photographs, audiotapes, videotapes, classroom maps, and lists of the constantly changing collection of children's books and print on the walls of the classroom. I also consulted my collection of teacher/researcher emails, parent newsletters, copies of Baker School web pages, and notes from informal interviews with Abbie.

Throughout the process, member checks such as interviews and focus groups clarified the key practices. I asked Abbie for her reactions to the emerging codes as I continued to make recursive adjustments to the descriptors or categories as patterns of practices became clearer. I checked my coding against the children's reports of their favorite locations and activities. In individual informal interviews in the fall and again in the spring, I asked children, 'Where do you like to go during Choice Time? Who do you usually play with? What do you do there? What stuff do you use?' However, while children's answers indicated their choices for peers and places, they were often not specific enough to identify individual practices, materials, or actions. To determine what children actually meant when they said they liked to 'play', 'make stuff', or 'draw', I looked closely at the video data to verify the key practices that tended to occur in each of the five locations.



- Key play practices were *enacting* realistic and fantasy roles in the house corner and book nook, *animating* dolls and toys as proxies at the dollhouse and writing table, and *exploring*<sup>1</sup> materials to examine their physical properties or discover new uses at the art table.
- Key design practices were *drawing and coloring images* using markers, colored pencils, crayons, or dry-erase markers with various surfaces and *constructing artifacts*<sup>2</sup> by layering, separating, folding, combining, and affixing materials to make an artifact with a cultural meaning.
- Key writing practices included *approximated writing* using markers, colored pencils, crayons, or dry-erase markers with various surfaces and *authoring*<sup>3</sup> books and plays at the writing table.
- Key reading practices included *approximated reading*<sup>4</sup> of familiar books, big books, and charts in the book nook.

### **filter three: event observation to identify nexus of key practices**

The third filter used event/action surveys, that is, continued close observation of classroom scenes but with a tighter focus to track intersections of key practices. In keeping with the research focus on participation, the children's activity was coded at the level of a *collective meaning-making event*, that is, the group activity that constitutes collective meaning-making within a given center location from the moment the first child arrived and picked up materials to the moment the last child left. Using emergent coding (Merriam, 1998), I created an axial coding scheme that was supported in QSR N6, a qualitative coding software program which evolved into three major sections: 1) meaning-making practices subdivided into sets for reading, writing, design, and play, 2) participation practices, and 3) the embodied community of practice including affinity groups.

### **filter four: locating transformative events in affinity groups for microanalysis**

The fourth filter located transformative events for microanalysis; transformative events were coded instances in which two social practices integrated, strengthening the effects of each. In Abbie's classroom, transformative events occurred as children combined mediational means in ways that strengthened the social cohesion of their affinity groups. An *affinity group* (Ferne et al., 1995) is created when children chose to play together based upon their common interests and activity preferences. The groups were fluid with children joining and leaving throughout the morning as they followed their interests. Across the span of months, however, consistent patterns of favorite content themes and preferred activities emerged. Three of the most stable groups collaborated to read, write, play, or design together around particular themes of school routines, Disney characters, or Midwestern University's sports teams. For coding

purposes, I named the three groups according to their descriptions of these shared interests.

- The Abbie Wannabes enacted the role of teacher as they read and played school together.
- The Just Guys explored materials and design tools, in their words, by 'just playin' around' as they drew pictures and constructed paper toys about Midwestern University football games.
- The Disney Princess Players animated small dolls as they acted out stories and authored books about Cinderella, Snow White, Sleeping Beauty, and other cartoon heroines.

Figure 3 shows a sociogram of children's preferred companions during Choice Times. Arrow patterns indicate children's relationships according to their reported play companions. A child's placement within a group, represented by the ovals on the figure, indicates a child's observed involvement with that group's shared activities and content themes. For example, Garrett's placement outside the Just Guys group reflects his play interests. Although he indicated several of the children in the Just Guys group as preferred playmates, he often chose to read alone or to draw about animals from *Madagascar* rather than to draw about sports or other themes that emerged as Just Guys' interests. On the other hand, children who bridged groups such as Emma or Zoe are placed in or near the intersections of the ovals on the figure (inside dashed line circle). Because of the affordances and conflicts that arise from these bridge positions, children who played across groups had a wider range of play opportunities, were chosen more often as preferred playmates, and were more likely to change activities frequently.

To examine key events within nexus in the focal classroom, I used micro-ethnographic methods of discourse analysis (Bloome et al., 2004) including transcription schemes of children's naturally occurring speech that attend to the social effects of gaze, gesture, and manipulation of materials during their literacy and play interactions. Close interactional analysis tracked verbal and non-verbal interactions between children as they manipulated tools, materials, and toys.

## mediated actions

Recursive analysis of data through the four filters in the previous section clarified the range of literacy, play, and design practices used by each affinity group in Abbie's classroom. In order to identify the mediated actions that produced transformations of meaning and participation, I used fine-grained micro-ethnographic analysis of videotaped language and actions (Bloome et al., 2004). Selected collective events – the unit of analysis or a strip of activity among children at a key location from the time the first child arrived until the last child



(Kress, 1997, 2003; Kress and Jewitt, 2003). Accordingly, for each turn in an interaction, I placed a description of the mediated actions and the situated context in the first column, the accompanying utterance in the second column, relevant play identities and classroom identities in the third and fourth columns, social practices in the fifth column, and effects on meanings of texts or objects in the sixth column, and effects on participation in the last column.

The transcript in Table 1 describes three turns excerpted from a longer analysis of one transformative event (21 consecutive turns during a two-minute segment excerpted from a 21-minute episode of airplane folding by members of the Just Guys affinity group). Transformative events were collective events that involved semiotic and participatory aspects of the research question. In the airplane-folding event, literacy play transformed paper into meaning-bearing signs (multimodal texts) and transformed the surrounding social space (affecting children's classroom participation): play practices strengthened the boys' design prowess and design practices cordoned off a boys' only play space. These three consecutive turns illustrate how the boys' silent exploration with materials supported their designs, allowing them to take up identities as experts and creating an inclusive/exclusive space in peer culture. During their non-verbal interaction in Turn 2, Marshall and Matt's joint concentration on a shared project demonstrated through their joint gaze, simultaneous handling of a common object, and dyadic attempt/response interaction closed off their activity to (female) newcomers such as Lin (Turn 3) and protected their shared design activity as a classroom space for boys' topics and activities. The Just Guys' practices developed group cohesiveness and addressed four peer culture concerns: constructing a gendered identity, resisting adult culture, exercising power through status within the group, and developing group inclusion through the protection of interactive space (Kyratzis, 2004). Boys in this group engaged in competitive displays of skill, consistent with masculinity expectations in gendered discourses (Blaise, 2005), that established leadership roles not only for immediate design projects within the affinity group but also for teacher-initiated classroom activities. Marshall and others in the group engaged in folding paper airplanes even though they viewed the activity as potentially transgressive; later in the episode Matt and Adam discussed whether airplane-folding might be prohibited, 'but Mrs. Howard won't let us'. Protection of masculine space was typical of Just Guys activity: although girls sometimes sat at the same table with this group and the boys might share materials and talk with them, Just Guys rarely engaged in joint projects or skill mentoring with group non-members.

In this data excerpt, a few seconds of paper airplane folding simultaneously included the boys and excluded Lin. The boys' production of transformations of objects, spaces, and identities was visible at the level of mediated actions where microanalysis of their gaze, actions, and interactional turn-taking revealed shifts in power relations. To a casual observer, it might have appeared that the

**table 1** transcript of excerpt from paper airplane folding in Just Guys Affinity Group: turns 1–3

Action/context	Talk at each turn	Transform-ation: classroom space	Transform-ation: design identity	Practices: play & design	Effect on object/artifact:	Effect on participation
1 Matt stands at the writing table and Marshall stands across from him. Both boys are looking down at their own hands as they fold paper airplanes from single sheets of typing paper.		School-controlled space		Parallel designing		
2 Matt creases his paper to copy Marshall's paper airplane. Marshall watches this fold and reaches over to press down the end of the folded edge on Matt's plane. Marshall makes the next fold on his own plane, silently demonstrating the next step as Matt watches.		Child-controlled space	Marshall as designer, Marshall as mediator, Matt as apprentice,	Shared designing as group cohesion	Marshall plane as model/concretized expertise Matt's copied design as concretized participation	Boys' joint focus on same object as bond Marshall's smoothing as acceptance of Matt's attempt; establishes Matt as leader
3 Lin walks up to the writing table but neither boy makes eye contact nor acknowledges her. She watches them for a few moments, gets a blank sheet of paper from the shelf, and leaves to make paper airplanes by herself.		Boy-controlled space	Boys as insiders Girl as outsider		Lin's distant copied design as detached participation or substitute	Lin's physical proximity as implicit bid to join play; Boys' lack of eye contact or talk with her as implicit rejection

boys were merely 'playing around' and that Lin was just not that interested in joining in the boys' play and design activity. However, the boys' mediated actions reinforced the cohesiveness of their interaction and enforced a bounded social space positioning that was difficult for her to penetrate.

## Conclusions

The recursive processes of data collection and analysis in MDA provide a responsive yet systematic way to locate key issues of relevance to teachers and young children in the complex nexus of school and peer cultures, to meaningfully filter large data sets that are a natural outcome of researching the wonderful messiness of classroom interaction, and to look closely at the way that casting a glance or smoothing a paper invokes expectations that reproduce unspoken gender expectations that powerfully influence children's opportunities to learn and participate in classrooms.

MDA provides analytic tools for investigating non-verbal actions as constitutive elements in social practices that are key to learning and development in school communities. Physical actions with objects can indicate how children are – or are not – taking up expectations for tool use and identities as tool users. If teachers have a better understanding of how children are apprenticed into valued academic practices, they will be better able to design mediated encounters in which expected combinations of practices for classroom participation are implicitly modeled or explicitly expressed and responsibility for learning is gradually released (Rowe, 2008).

MDA is a critical approach to language and social activity that begins with the concerns of participants and supports them as they work toward transformation. In this case, teachers struggled against national trends that eroded play in schools; at the same time, children used play to carry out their own social agendas. Through MDA's filter process, the research foci were constantly reshaped to stay responsive to the goals and concerns of teachers and children in classrooms. This critical and locally-grounded approach requires an understanding of power relations in and out of the classrooms. MDA provides tools for uncovering how power operates through non-verbal embodied action and handling of materials in classrooms.

MDA situates children's actions with learning materials and interactions with each other within histories of material tool use and histories of social practices – histories that are co-constructed through daily participation in the life of the classroom. MDA is concerned not only with identifying social practices but also with addressing participants' concerns. The aims of children working to protect play spaces or build friendship alliances in peer culture may be at odds with adult goals for academic achievement in school culture or more equitable power relations among social groups. This will require researchers to

attend to social and ethical considerations in negotiating competing goals and differential adult/child and researcher/participant power relations. In this case, our teacher/researcher collaborative relationship and frequent member checks in the MDA process provided opportunities for Abbie to review the video data and to respond to my summarized observations. When Abbie realized how Lin was excluded from the boys' group, she created opportunities for Lin to teach interested children – including Just Guys – how to create other paper projects. As Lin taught other children to fold Japanese origami and to write Chinese characters, she demonstrated skills that provided cultural capital that enabled her to join in more easily at the Just Guys' table. Mediated discourse analysis and other collaborative approaches are needed to help researchers and teachers appreciate the nuances of children's social and material interactions and better understand how to interrupt cycles of exclusion and help children mediate peer culture as well as school culture.

Classrooms are situated within activity systems supported by powerful discursive regimes (Foucault, 1995). Mediated activity, verbal and non-verbal, occurs in a social space situated in a particular time and place. 'A place is con-stituted not only by the built structures, furniture, and decorative objects but also by the discourses present in that place' (Scollon and Scollon, 2003: 162). Microanalysis of mediated actions within transformative events in classroom links to macroanalysis of Discourses that intersect and form real actions. Scollon (2001) suggests combining MDA with critical discourse analysis, which links microanalysis of talk and text to global discourses that circulate in local situations. In this research, I combined MDA with James Paul Gee's (2005) approach to critical discourse analysis. Gee theorizes embodied (D)iscourse as expected ways of being and doing, a notion that resonates with the Bourdieusian (1977) notions of social practice and *habitus* that underpin MDA. This syncretic approach to MDA provided fine-grained analysis of gesture, material manipulation, non-verbal and verbal patterns, and classroom social positioning that uncovered the meaning-making inherent in play practices and the global identities and institutional discourses that shape children's participation in early childhood classrooms.

## notes

1. As a whole class, children engaged more frequently in exploring materials (45% of all observed play practices), enacting (41%), and animating (29%) in comparison with the other play practices.
2. As a whole class, children engaged more frequently in drawing and coloring (60% of all observed design practices) and constructing (34%) than in other design practices.
3. As a whole class, children engaged more frequently in approximated writing (69% of all observed writing practices) than inventing to write (12%) or writing conventionally (10%).



4. As a whole class, children engaged more frequently in approximated reading (75% of all observed reading practices) than invented reading (17%) or reading conventionally (4%).

## references

- Blaise, M. (2005) *Playing It Straight: Uncovering Gender Discourses in the Early Childhood Classroom*. New York, Routledge.
- Bloome, D., Carter, S.P., Christian, B.M., Otto, S. and Shuart-Faris, N. (2004) *Discourse Analysis and the Study of Classroom Language and Literacy Events: A Microethnographic Perspective*. Mahwah, NJ: Lawrence Erlbaum.
- Bourdieu, P. (1977) *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Corsaro, W.A. and Eder, D. (1990) 'Children's peer cultures'. *Annual Review of Sociology* 16: 197–220.
- Dockett, S. and Perry, B. (2007) 'Trusting children's accounts in research'. *Journal of Early Childhood Research* 5: 47–63.
- Dyson, A.H. (1989) *Multiple Worlds of Child Writers: Friends Learning to Write*. New York: Teachers College Press.
- Dyson, A.H. (1993) *Social Worlds of Children Learning to Write In an Urban Primary School*. New York: Teachers College Press.
- Dyson, A.H. (1997) *Writing Superheroes: Contemporary Childhood, Popular Culture, and Classroom Literacy*. New York: Teachers College Press.
- Dyson, A.H. (2001) 'Where are the childhoods in childhood literacy? An exploration in outer (school) space'. *Journal of Early Childhood Literacy* 1: 9–39.
- Dyson, A.H. (2003) *The Brothers and Sisters Learn to Write: Popular Literacies in Childhood and School Cultures*. New York, Teachers College Press.
- Edwards, S. (2007) 'Expansive analysis of teachers' professional learning in early childhood from developmental-constructivism to socio-cultural theory and practice: an education'. *Journal of Early Childhood Research* 5: 83–106.
- Fernie, D.E., Kantor, R. and Whaley, K.L. (1995) 'Learning from classroom ethnographies: same places, different times', in J.A. Hatch (ed.) *Qualitative Research in Early Childhood Settings*, pp. 156–72. Westport, CT: Praeger.
- Foucault, M. (1995) *Discipline and Punish: The Birth of the Prison*. New York: Random House.
- Gee, J.P. (1996) *Social Linguistics and Literacies: Ideology in Discourses*. London: RoutledgeFalmer.
- Gee, J.P. (2005) *An Introduction to Discourse Analysis: Theory and Method*. London: Routledge.
- Geertz, C. (1973) 'Thick description: toward an interpretive theory of culture', in C. Geertz (ed.) *The Interpretation of Cultures: Selected Essays*, pp. 3–32. New York: Basic Books.
- Gillen, J. (2002) 'Moves in the territory of literacy? The telephone discourse of three- and four-year-olds'. *Journal of Early Childhood Literacy* 2: 5–20.
- Kress, G. (1997) *Before Writing: Rethinking the Paths to Literacy*. London: Routledge.
- Kress, G. (2003) 'Perspectives on making meaning: the differential principles and means of adults and children', in N. Hall, J. Larson and J. Marsh (eds) *Handbook of Early Childhood Literacy*, pp. 154–66. London: SAGE.



- Kress, G. and Jewitt, C. (2003) 'Introduction', in C. Jewitt and G. Kress (eds) *Multimodal Literacy*, pp. 1–18. New York: Peter Lang.
- Kyratzis, A. (2004) 'Talk and interaction among children and the co-construction of peer groups and peer culture'. *Annual Reviews of Anthropology* 33: 625–49.
- Lancaster, L. (2001) 'Staring at the page: the functions of gaze in a young child's interpretation of symbolic forms'. *Journal of Early Childhood Literacy* 1: 131–52.
- Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Leont'ev, A.N. (1978) *Activity, Consciousness, and Personality*, trans. M.J. Hall. Englewood Cliffs, NJ: Prentice Hall.
- Loughlin, C.E. and Martin, M.D. (1987) *Supporting Literacy: Developing Effective Learning Environments*. New York: Teachers College Press.
- Merriam, S.B. (1998) *Qualitative Research and Case Study Applications in Education*. San Francisco, CA: Wiley.
- Ochs, E. (1999) 'Transcription as theory', in A. Jaworski and N. Coupland (eds) *The Discourse Reader*. London: Routledge.
- Rogoff, B. (1995) 'Observing sociocultural activity on three planes: participatory appropriation, guided participation, and apprenticeship', in J.V. Wertsch, P. Del Rio and A. Alvarez (eds) *Sociocultural Studies of Mind*, pp. 139–64. Boston, MA: Cambridge University Press.
- Rowe, D.W. (2008) 'The social construction of intentionality: two-year-olds' and adults' participation in a preschool writing center'. *Research in the Teaching of English* 42(4): 387–434.
- Scollon, R. (2001) *Mediated Discourse: The Nexus of Practice*. London: Routledge.
- Scollon, R. and Scollon, S.W. (2003) *Discourses in Place*. New York: Routledge.
- Scollon, R. and Scollon, S.W. (2004) *Nexus Analysis: Discourse and the Emerging Internet*. New York: Routledge.
- Vygotsky, L. (1935/1978) *Mind in Society*. Cambridge, MA: Harvard University Press.
- Wertsch, J.V. (1991) *Voices of the Mind: A Sociocultural Approach to Mediated Action*. Cambridge, MA: Harvard University Press.
- Wohlwend, K.E. (2007a) 'Kindergarten as nexus of practice: A mediated discourse analysis of reading, writing, play, and design practices in an early literacy apprenticeship', *Language, Literacy, and Culture*, University of Iowa, Iowa City.
- Wohlwend, K.E. (2007b) 'More than a child's work: framing teacher discourse about play'. *InterActions: UCLA Journal of Education and Information Studies* 3: 1–25 [electronic journal].
- Wolfersberger, M.E., Reutzell, D.R., Sudweeks, R. and Fawson, P.C. (2004) 'Developing and validating the Classroom Literacy Environmental Profile (CLEP): a tool for examining the "print richness" of early childhood and elementary classrooms'. *Journal of Literacy Research* 36(1): 83–144.

## correspondence

Karen Wohlwend, Assistant Professor, Language and Education, Indiana University, 3042 Wright Education Building, 201 N. Rose Avenue, Bloomington, IN 47405, USA.  
[email: [kwohlwen@indiana.edu](mailto:kwohlwen@indiana.edu)]