# You're Not Batman!
# Insiders and Outsiders: The Ecology of Discourse

**JOHN JONES PARRY, BILL HAGAN, AND HELEN ANDERSON**
**Manukau Institute of Technology**

***ABSTRACT:*** *Research and theory and its application in early childhood education have increasingly emphasised the importance of context in observation and analysis of children's play. This study investigates the application of ideas from the Discursive Action Model to observation and analysis of children's play in the family area of a childcare centre. Children at play were videotaped and the tapes observed to develop a code of analysis that would be functional in this context. The focus of the code was children's language. The code developed included context categories of role play, metaplay and reality. The categories of intent were joining, maintaining and excluding. This code usefully identified the patterns of participation in play of individual children and may have application as an observation tool for childcare centre teachers.*

## Introduction

Analysis of the learning activity of young children has frequently been carried out by describing what the child can do in relation to specified tasks which have been established in a developmental sequence (Bodova & Leong, 1996). Writers such as Vygotsky (1962), Rogoff (1990) and Reed (1995) have focussed attention on the need to challenge this approach. Their work identifies the importance of considering the context of children’s activity as well as the child's actual and potential participation. An “ecological” approach to research in many fields including early childhood is becoming well established (Lier, 1997). The research described below proposes an innovative way of observing and interpreting aspects of the social interactions of children in the early childhood.

### Context

Many theorists have identified children’s play as a primary context for the acquisition of important social competencies. Piaget (1962) established that play is often the medium through which children build social collaboration skills and learn to co-ordinate multiple points of view. Play interactions within the peer group are critical for providing the young child with feedback necessary for the socialisation of the child (Fantuzzo, Mendez, McDermott & Sutton-Smith, 1998). Fisher's (1992) meta-analysis of 46 studies on play and development concluded that play resulted in "moderately large" to "noteworthy" improvements in children's development, enhancing the progress of early development from 33 percent to 67 percent by improving adjustment and reducing language and socio-emotional difficulties. Pellegrini (1984) found that play in the housekeeping corner was a particularly strong predictor of three and four-year-old's aptitude for imaginative, symbolic play.

Vygotsky (1962) identified play as a primary setting in which important peer socialising experiences occur during the before school years. He introduced the concept of "Zone of Proximal Development" (ZPD), the dynamic zone of sensitivity in which learning and cognitive development occur. Through collaboration and interaction with teachers, parents and other children, the child actively constructs new problem solving abilities (Rogoff, 1990). Others such as Bruner (1986) used the term scaffolding to describe effective teaching/learning interactions within the ZPD. An important aspect of scaffolding is "intersubjectivity", a concept introduced by Newson and Newson (1975). This refers to the process whereby two participants who begin a task with different understanding arrive at shared understanding. Several studies report effective collaboration and cognitive gains from peer interaction during problem solving among pre-schoolers (Brownell, 1990; Tudge, 1992). Vygotsky also emphasised the importance of mixed-age grouping of children. His view was that this granted each child access to more knowledgeable companions and permitted each child to serve as a resource for others (Berk & Winsler, 1995; Brownwell, 1990) as they actively sought to integrate into the "ecology" of the play situation.   Coles (cited in Hall & Martello, 1996, p. 5) further suggests that for pre-school children, peer-group discourse as an opportunity to engage in reasoned thinking and "since the discourse status of the members of the group is equal, they learn to collaborate in order to make meaning".

## Participation

The importance of play is well established. The work of Gee (1990) provides a useful model for interpreting the child's status as a participant in play in early childhood centres. His theory of primary and secondary discourses suggests children will be more or less novices in the discourse of the childcare centre as a whole and of the particular play areas of the centre. This model sees participation as a product of the child's active attempts to identify and practise the discourse features of the immediate environment. The features of the environment will be based on a generic set common to the culture but will also have a configuration unique to the context. Success in becoming an “insider” in the discourse of this particular environment is a measure of the child's level of participation and thus of their learning opportunities.

### Observation and Evaluation

The Discursive Action Model (DAM: proposed by Edwards & Potter, 1992; Harré & Gillett, 1994; and Harré & Stearns, 1995) has been primarily applied to adults but some of its concepts are relevant to the current discussion.

The first element of DAM is Action. This model proposes that the most useful data for analysis comes from natural, uncontrived activity sequences. The second element in the model is Fact and Interest. This element is related to the way participants in any activity construct their understandings around their motivation or stake in the outcome of the activity. The third element is labelled Accountability. This suggests that participants position themselves as part of their construct of the situation in relation to their sense of accountability for the progress and outcome of the activity. In relation to children's play; child initiated play is the most useful object of observation seems obvious, children have a stake in becoming “insiders” or maintaining their position as established insiders and that this motivates activity is a compelling idea. And lastly, children may construct themselves as independently accountable for the maintenance of the “game” or conversely desire to become part of the game and thus construct their accountability position as dependant on the insiders. Therefore, observing children at play to identify their “intent” as they attempt to become members of the prevailing discourse (insiders), to maintain their positions as already competent participants or to exclude some potential players (outsiders) provides a useful framework for identifying and evaluating the social interactions and subsequent learning opportunities of children in a pre-school.

## METHOD

### Setting

This study is located in a childcare centre which aims to provide care and education for children in two groups; for children under two and for children from two to five years of age. The older group was observed for this study. The roll number was 44 children at the time of the study. The children are a multi–ethnic group including Maori, New Zealand European, Chinese and Taiwanese. Planning and assessment systems are linked to *Te Whaariki,* the New Zealand early childhood curriculum which is based on socially constructed learning

(Ministry of Education, 1996). Staff evaluate the implementation of individual development plans, and there are also structured "kindergarten" sessions for four year olds which include regular excursions. "Children have frequent opportunities to be creative and to select from a wide range of physical activities" (ERO Review, 1999). Activities are arranged to encourage a free flow of play between inside and outdoor environments with frequent opportunities to participate in large and small group activities.

There is a family play area that encourages dramatic play opportunities just inside the two main doors to the outdoor play area. This area is comprised of a small table and chairs, a sofa, bed, child's cot, racks of dress-up clothes including hats, shoes, frocks, skirts, capes, many rugs, blankets and pillows and a set of drawers. The area attracts children for extended periods of free play where they often initiate complex dramatic play activities. The observations in this study were carried out in the family play area.

## Observations

The childcare centre has an observation room, which is equipped with a video monitor. The video camera is located close to the ceiling of the centre and can be directed at particular areas of the centre. A microphone was hung above the family play area. Permission was obtained from the parents of all the children for video observations to take place in accordance with the childcare centre policy and the requirements of the relevant Research and Ethics Committee.

All activity in the family play area was video taped over six sessions of one hour each between 10.00 and 11.00am over two weeks. The language on the videotapes was then transcribed and an analysis was developed using tapes and transcripts. Three observers watched the tapes and a code of analysis was negotiated and trialed until agreement was reached.

## Code of Analysis

Gee (1989, p. 5) defines discourse as "saying, doing, being, valuing, believing combinations...". This approach underpins our use of the term "ecology" in relation to discourse. If discourse environments or "contexts" are made up of some elements which are relatively fixed but also made up of some elements which are new and changing then a relevant code of analysis must be both made up of standard or generic elements and of elements which have been identified by observation in the specific context under study. The final shape of the code will therefore be unique. Although there was a focus on language based data in this study, it is acknowledged that non-verbal communication is at least as important if not more so than the language based data. It is quite possible that the code developed below could be expanded and this would be the subject of a new study. Children were certainly observed “joining, maintaining and excluding” in non verbal ways and developing methods of recording and analysing such data within the framework suggested here would be very worthwhile.

Accurately categorising the children’s discourse was challenging. Sometimes, because of the observer’s commonality of experience with the children, it was relatively easy to categorise their language. More often a variety of cues had to be considered. A complicating factor was the varying ages of the children and the fact that they were from diverse cultures. Analysis of the meaning of the discourse depended on the observer’s interpretation of contextual factors including non-verbal indicators and the ability to play and replay the tapes. Limitations came with variable sound quality and the inability of the observers to see some of the non-verbal indicators when the child was turned away from the camera.

The work of Sinclair and Coulthard (1975) and Francis and Hunston (1992) was reviewed to find a system of analysis. Sinclair and Coulthard worked with older children in classrooms while Francis and Hunston’s work is built on data of informal telephone conversations. Their system of discourse analysis utilises five ranks: Acts, Moves, Exchanges, Transactions and Interactions.

Identified from Francis and Hunston (1992), “Interactions” are the opening and closing of transactions. “Transactions” are collections of exchanges with a broadly common purpose; in Francis and Hunston (1992) this is the whole telephone conversation, in Sinclair and Coulthard (1975) this is the classroom lesson. In this study it was not possible to identify transactions because the observers were not present at the start and end of significant segments of the childcare centre’s day. At the next level down, the level of “exchange”, there was a rich layer of material to work with and attention was focussed at this level in the development of this analysis. Exchanges provided the base unit for data collection and can be identified as discrete chunks of the transcript marked by a change of speaker or continuation of the same speaker after a pause in which an action takes place. The ranks below this of move (group of acts) and act (smallest linguistic or non-verbal unit which can denote intent) could provide a finer analysis in future studies.

The Sinclair and Coulthard paradigm calls for the identification of exchanges in relation to the context of the analysis. Observation of children in the family play area suggested that the descriptors for exchanges might be related to play. Two categories of exchanges were identified: Play, which was divided into Role Play and Metaplay, and Reality.

**Context: Role Play**

Dramatic play or pretend play can be defined as children's active engagement in role play and the transformation or substitution of situations and/or inanimate objects in a nonliteral way (Howe, Moller, Chambers, & Petrakos, 1993). Therefore, children behave as they imagine Batman would, for example, in regards to the context they have constructed. Knowledge of this role comes from their own experiences, and is mediated with others using the tools of metaplay to create the role.

The favoured roles observed were Batman, Mother, Father, Baby, Pet (cat or dog) and Builder. Two children are looking after the baby (doll).

> **Child B:** Where's the nappy?
>
> (Child D tries to put the nappy on the "baby")
>
> **Child B:** Nooo, you do it like, like...
>
> **Child D:** I think the baby's cold
>
> **Child B:** Yep

Later in this sequence Child D says "Dinner. Dinner's ready mum". These two are transforming themselves into the parent role and speaking "in role".

**Context: Metaplay**

Trawick-Smith (1998) defines metaplay as the act of stepping out of a make believe role to think or communicate about play. During these "out of frame" discussions and negotiations about play, children must think and talk about symbolic representations and other internal mental processes (Fein & Schwartz, 1986). Trawick-Smith's three categories of metaplay are Initiations, Reponses and Constructions (physical actions regarding props or the physical play setting, which may be accompanied by verbalisations). These become the tools children use to carry out the intent of play. He found that older children performed more metaplay behaviours than younger ones, and that it is an indicator of greater social and cognitive competence. He also reports a growing need to represent the world with accuracy, and this explains why children relate play to real life events as a "reality check". Therefore, metaplay does not occur in the play frame, but is tied to maintenance of it and is negotiated between players. In this study Trawick-Smith's definitions are used to identify metaplay but confined to analysis of language used. For example Child D is sitting on a chair and waves to Child E to come and join.

**Child E:** Where's my chair? (Construction)

**Child D:** You don't get one, you sit on the cot. (Response)

**Child E:** This is the Dad's chair (Construction. Child E pulls chair out from under the tent, sits next to D).

Having set themselves up as Mum and Dad, these two sit in their chairs side by side, laughing, chatting and whispering to each other for several minutes with the "Dad" maintaining a straight backed pose keeping his arms in an uncomfortable position on the armrests.

In this example, the children negotiated about the correct prop for their Mums and Dads game. This describes the "construction" category of metaplay and set them up for several minutes of "in role" play. The negotiation of roles is integral to metaplay as follows:

**Child A:** You're not Batman. You're not Batman

**Context: Reality**

Although most exchanges seemed to fall fairly easily into the role play and metaplay categories there were occasional exchanges which did not. These were given the tentative title of "reality" as their common feature was that they seemed to have occurred outside the frame of role play or metaplay. These were often responses or initiations which had referents which had no apparent link with the current play sequence. For example, in the middle of a sequence which involved the roles of dog, cat, mother and baby one child noted a woman pass by the window in a white coat.

**Child O:** Out that window. She's out that window with a white coat on.

**Child T:** It's just one lady.

(In the middle of a sequence in which the children are organising a hut to play in)

**Child P:** Hey, look up there (points at the microphone).

It is interesting to note that this was the only time anyone responded to the microphone which was hung above the family area.

This level of analysis provided an ongoing description of context within which the nature of the children's intent could be identified. Three categories for intent evolved. These analyses arise from the Discursive Action Model (DAM) which proposes that what people (children) do is never neutral but that they will have some form of interest or stake. The defining of children's interest in the play as joining, maintaining or excluding arises from this model (Potter and Wetherell, 1990).

**Intent: Joining**

Joining is actions or sequences of actions where the intent of the child is to join or engage in the play scenario, or parts of that scenario. In part, joining can be seen as an initiating a question that has the function of gaining a reply from another speaker. It may not be a verbal question in lexical form, but its intention is to elicit and to engage. Questions occur in many places in the discourse, but with differing purposes. Joining here is a verbal testing of an "outsider" wanting to become an "insider", and looking for a response from an insider. From the overt "Will you be my friend?" (Child A) to the more subtle "meow" (Child Z) of a child wanting to be part of a play sequence which involved pretending to be pets, these are all "joining". Child A wants to join in the play, two other children are trying on clothes. The first attempt is overt:

> **Child A:** I want to play now.
>
> **Child T:** I said later.
>
> (This doesn't succeed so a more subtle attempt is made)
>
> **Child A:** I'm gonna put these ones on. (shoes)
>
> **Child A:**..... Let's go under here. (attempts to enter the "tent")
>
> **Child T:** Don't come in...
>
> (Child A remains an outsider while her attempts at joining fail).

**Intent: Maintaining**

Maintaining is actions or sequences of actions (verbal) where the intent of the child is to keep the ethos of the play continuing. This may refer to relationships, roles, use of equipment, the story line of the play, and the tone/tenor of the play. The central focus is the child's intent in terms of their stake in the discourse. This may include maintaining solitary play, maintaining an ongoing story, maintaining the togetherness of a group, and maintaining an atmosphere of humour. For example:

**Child Y:** Baby can't see the Titanic, can she?

**Child S:** Wow, I like Titanic.

**Child Y:** Yeah, me too, but baby can't .....

(Child S is maintaining the conversation by responding to the "Titanic" gambit and Child Y does the same by responding with a link to both Titanic and the "baby").

**Intent: Excluding**

It seems that children actively seek to integrate into the ecology of the play situation and to collaborate in order to make meaning of it (Vygotsky, 1962). Children who have negotiated meanings for a sequence of role play/metaplay/reality may act to exclude those who unsettle that meaning. Those who are excluded may be promoting a different version from that which prevails at the time or they may be novice participants in an established discourse. Whatever the cause, it is possible to observe some children actively excluding others. For example, Child A is building a tent with blankets and chairs, another child approaches (joining) with "What are you fixing?" Child A replies "Nooo, don't come in. No you can't come in. No No. No you can't come in No".

### Reliability

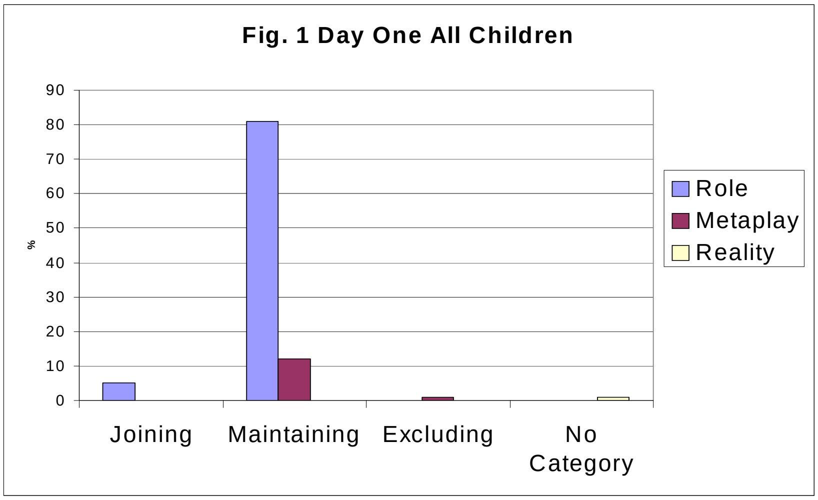
The researchers developed the code of analysis and trialled its application to ensure reliability. After much negotiation of meaning, the code descriptors were used by three observers to independently analyse a section of the transcript and agreement on categorisation of exchanges was 84 percent. Analysis consisted of categorising exchanges as illustrated above and counting occurrences.

## Results

All exchanges were classified using the code of analysis developed for this context as described above. Almost all exchanges could be classified into the context categories of Role Play, Metaplay, Reality and the intent categories of Joining, Maintaining, Excluding. A very small number of exchanges, usually those classified as Reality, seemed not to fit the three categories of intent and have been classified as "No Category". The data from each day for the whole group was graphed and then the data for individual children was graphed for comparison. Each day's tape was approximately one hour long.

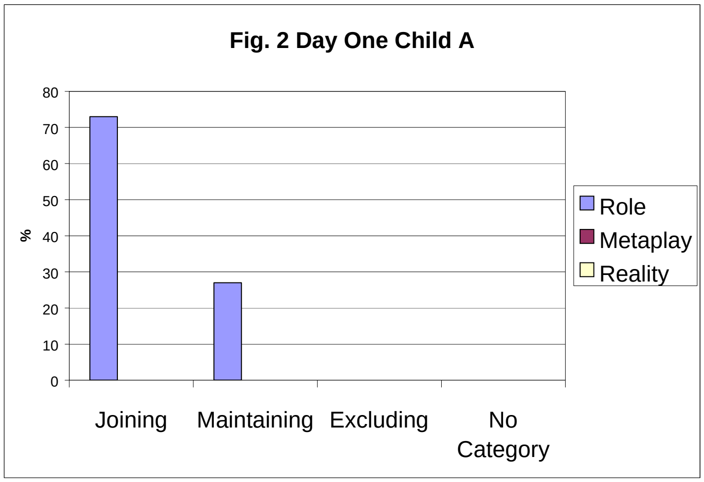
Exchanges were graphed as percentages for comparability across graphs and the number of exchanges is noted under each graph to provide an indication of volume.

Figure 1 illustrates a session in which the children are maintaining role play very consistently.  Of the total exchanges there is only a small proportion of excluding or joining.



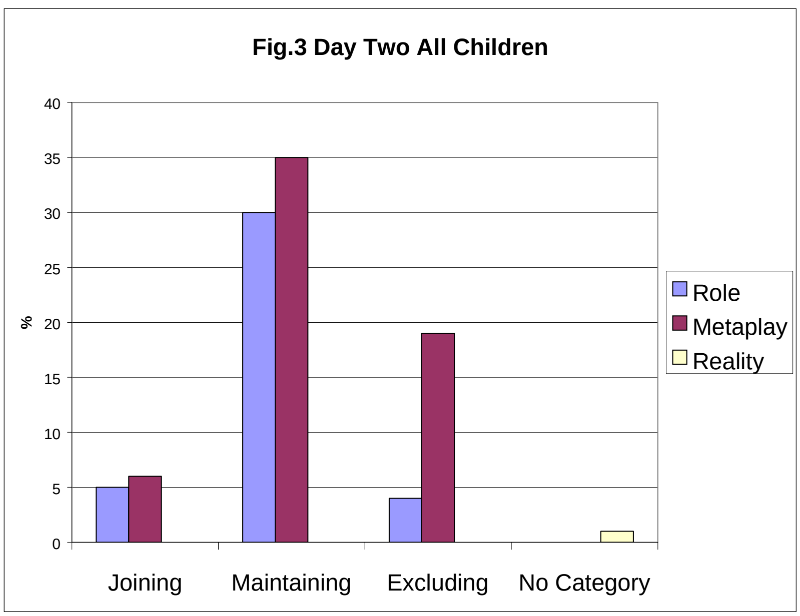

Total Exchanges N =164

Figure 2 illustrates the proportions of exchange types for one child during Day One. This child's exchanges are all classified as role play in line with the group illustrated in Figure 1 for the same time. However, her intent has been classified primarily as "joining" where the group is primarily maintaining.  She may be an "outsider" trying unsuccessfully to join the play.



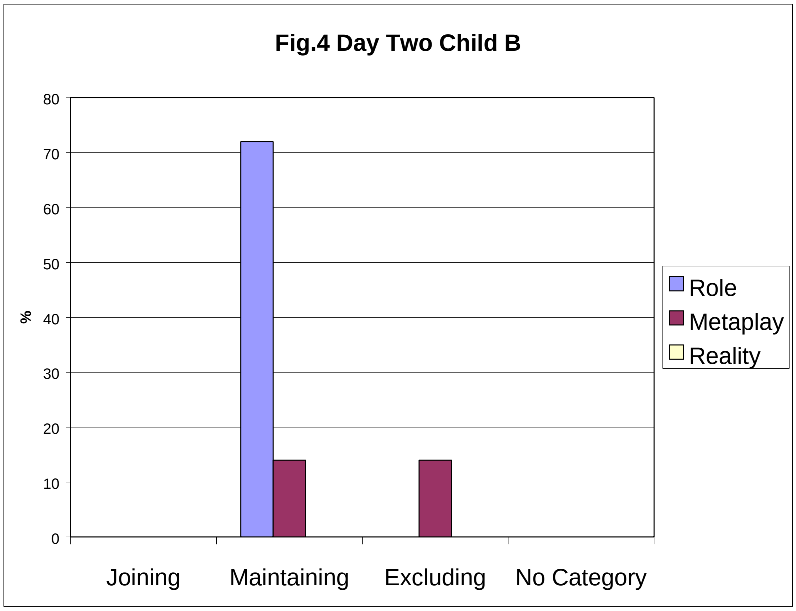

Total Exchanges N = 24

Figure 3 illustrates the data for all children in the Day Two session. This session contrasts markedly with the Day One session. There is proportionately more metaplay and a substantial amount of excluding.




Total Exchanges N = 113

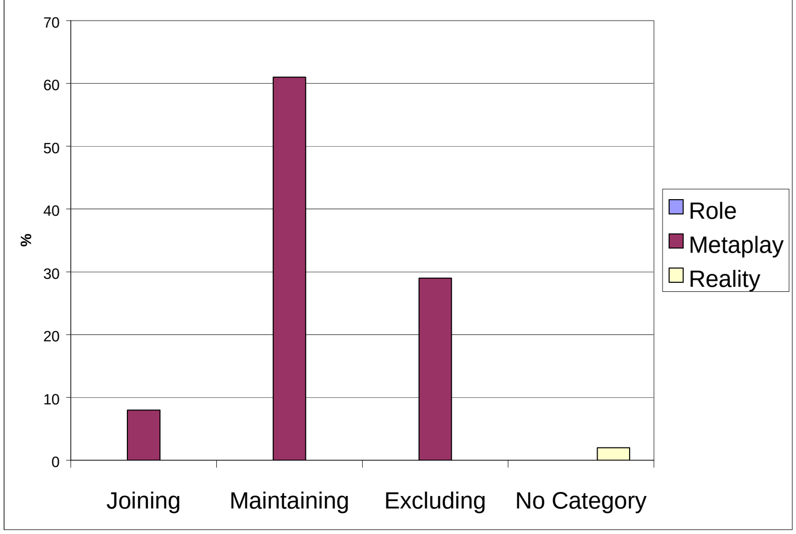
Child B on Day Two (Fig. 4) has spent much of the session in role play in contrast to the group data which suggests that the group was divided between role play and metaplay. Child B seems immersed in her play prepared to protect her "patch" by excluding others.




Total Exchanges N = 25

Figure 5 shows the data from a play sequence of 14 minutes rather than the whole session. This is followed by the data from the same sequence for one child (Figure 6). The use of a sequence seems to produce data which usefully discriminates among the categories of the code of analysis and may provide a practical time frame for observations.

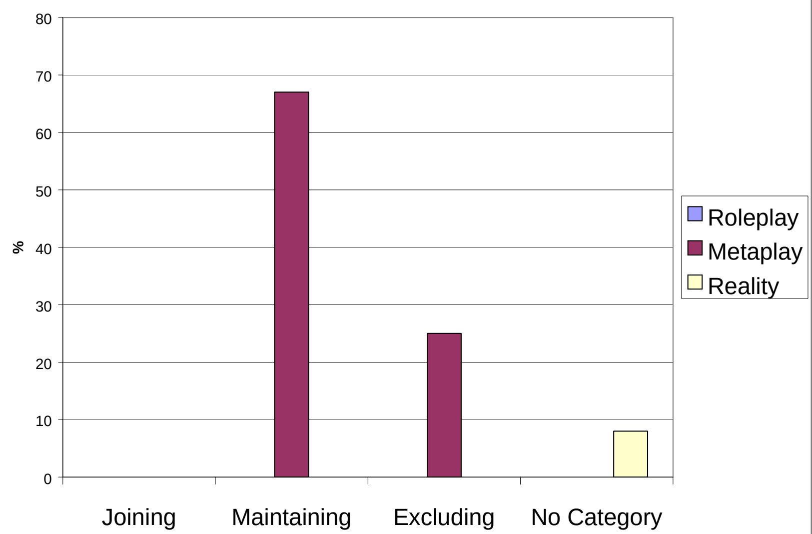
**Fig. 5 Day Four All Children -Play Sequence A**




Total Exchanges =98

In Figure 6 Child C would appear to be a clear insider maintaining play and excluding others. This also provides an interesting illustration of the Reality category; the children are preparing for “clean-up”.

Fig. 6 Day 4 Child C - Play Sequence A




Total Exchanges N = 56

Figure 7 shows the data from an 11 minute sequence. The data is presented as raw as the number of occurrences is low and this figure provides a useful contrast with Figure 8.

Fig. 7 Day Five All Children Sequence B

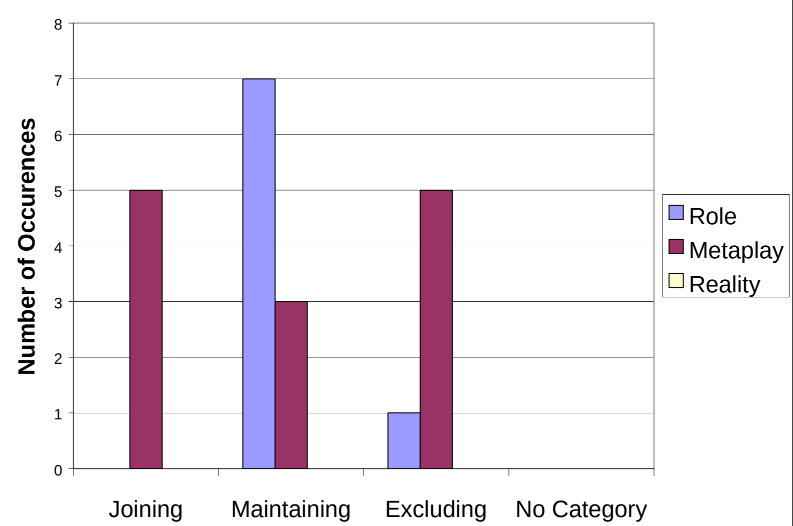


Figure 8 below provides a very interesting point of analysis. Child E participates in the play sequence throughout the 11 minutes of the sequence but this method of observation highlights the fact that he only makes two utterances in the entire sequence. This is a child for whom English is a second language and although a participant in the play is not using language as his main method of communication.

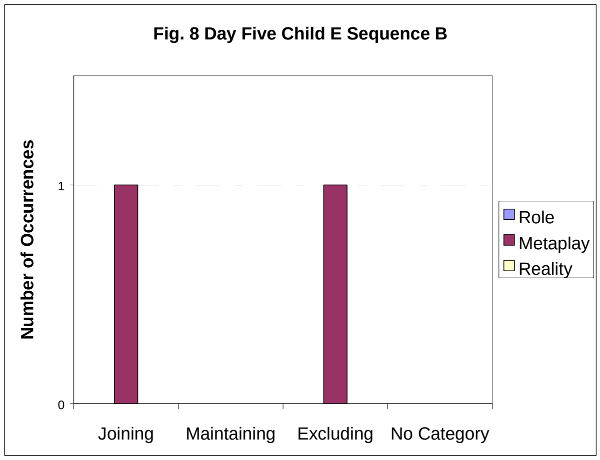
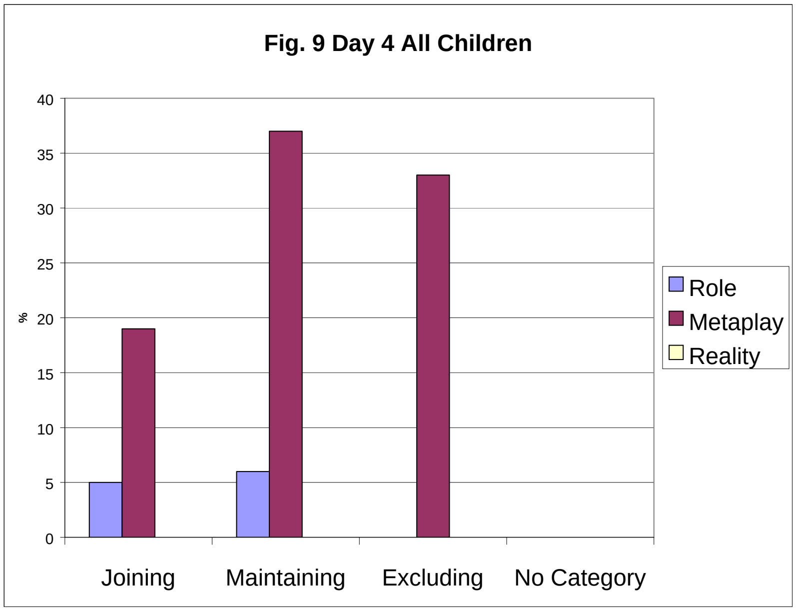



Figure 9 illustrates a session where metaplay predominates and the play seems unsettled by a large proportion of the exchanges being excluding and joining. The group hasn't yet established cohesion.




Total Exchanges N = 63

The above selection of graphs drawn from the observation data demonstrates the capacity of this method of analysis to provide useful information about the verbal interactions occurring among children in one play area.

## Discussion

It is critical to the development of young children that they have the opportunity to participate with other children in a variety of physical and interactional contexts.

The primary aim of this study has been to develop a code of analysis that can be applied to the observation of young children. The purpose was to experiment with a method of observation that could be used to evaluate the quality of the opportunities for interaction occurring in the family play area of a childcare centre. Application of the code developed produced results which suggested that the code usefully identified patterns of interactions across groups of children playing in a particular area. Comparison of the group patterns with individual patterns highlighted inclusion/ exclusion from the variety of language experiences available and thus may provide educators with a clearer description of the kind of interventions needed in order to include these children more fully in play.

This study raises the possibility of developing a practical observation method for practitioners in early childhood centres which will identify young children who may benefit from interventions to increase participation in play. Such an observation tool may also be useful to identify play areas that do not provide a context which fosters valued play experiences. The aggregation of numbers as data may provide observers with one element of information to be used along with context descriptors in the observation of the progress of individual children and in the planning and reviewing of the early childhood centre activities and environment

There were discoveries and surprises in the conduct of this study. The importance of including context was emphasised when the analysed data from the tapes was studied. The most useful levels of analysis were those of the play sequence or the hourly observation. These time frames appeared to take into account the immediate context. Putting data together from more than one session was less useful and didn't show the variety of responses to different contexts which characterised each child's activity.

The use of the Sinclair and Coulthard (1975) paradigm of exchanges proved very effective for identifying contexts and seemed to discriminate usefully between the contexts in which children were interacting. There was a surprising amount of metaplay identified and this aspect of the code may also be useful for evaluating the type of activity which is facilitated by different play settings.

This study was limited to analysing language as a pragmatic strategy in what is essentially exploratory research. The next steps in investigating the ecology of discourse in early childhood contexts include developing methods of observing and describing non-verbal behaviours and identifying social elements of discourse.

The reality category remains experimental. The analysis produced a very small number of examples but after much consideration these examples continue to be seen as remaining outside the role-play – metaplay frame. A different context may produce more examples so that this idea can be more fully developed.

The concept of insiders and outsiders is seen in action in the joining, maintaining, excluding analyses. The code identified children whose data was outside the group pattern and those whose data was similar to the group pattern. The children might be characterised as being more or less novice participants in the prevailing discourse following Gee’s (1989) approach. It is an oversimplification to suggest that all children need to be “insiders” rather, this analysis provides a framework for considering the issues of intent raised by the Discursive Action Model. If observations suggest that a child’s intent is to join but is failing or is frequently excluded or frequently acts to exclude then this may be useful information for educators to act on.

This study has raised many interesting questions. There is much room to develop the code of analysis to include non-verbal activity, to investigate the reality category further and most challenging of all to apply the ideas developed in this study across many contexts with both adults and children.

## References


Berk, L. E., & Winsler, A. (1995). *Scaffolding children's learning: Vygotsky and early childhood education.* Washington D.C.: National Association for the Education of Young Children.

Bodrova, E., & Leong, D. J. (1996). *Tools of the mind - The Vygotskian approach to early childhood education.* Englewood Cliffs, New Jersey: Merrill.

Brownell, C. A. (1990). Peer social skills in toddlers: Competencies and constraints illustrated by same-age and mixed-age interaction. *Child Development, 61,* 838-848.

Bruner, J. (1986). *Actual minds, possible worlds*. USA: Harvard.

Edwards, D., & Potter, J. (1992). *Discursive psychology*. London: Sage Publications Ltd.

ERO Review (1999). *Confirmed accountability report Manukau Institute of Technology Childcare No 1*. NZ: ERO Office.

Fantuzzo, J. C., K., Mendez, J., McDermott, P., & Sutton-Smith, B. (1998). Contextually-relevant validation of peer play constructs with African-American Head Start children: Penn Interactive Peer Play Scale. *Early Childhood Research Quarterly, 13*(3), 411-432.

Fisher, E. P. (1992). The impact of play on development: A Meta analysis. *Play and Culture, 5*, 159-181.

Francis, G., & Hunston, S. (1992). Analysing everyday conversation. In M. Coulthard (Ed.), *Advances in spoken discourse analysis*. New York: Routledge.

Fein, G. G. & Schwartz, S. S. (1986). The social co-ordination of pretence in pre-school children. In G Fein & M Rivkin (Eds.), *The young child at play: Reviews of research*. Vol.4 (p95 – 111). Washington DC: National Association for the Education of Young.

Gee, J. P. (1989). Literacy, discourse, and linguistics: introduction. *Journal of Education, 171(*1), 5-25.

Gee, J. P. (1990). *Social linguistics and literacies. Ideology in discourses*. USA: Falmer Press.

Hall, N. & Martello, J. (Eds.). (1996). *Listening to children think: Exploring talk in the early years*. London: Hodder & Stoughton.

Harré, R. & Gillett, G. (1994). *The discursive mind*. London: Sage.

Harré, R. & Stearns, P. (1995). *Discursive psychology in practice.* London: Sage.

Howe, N., Moller, L., Chambers, B., & Petrakos, H. (1993). The ecology of dramatic play centres and children's social and cognitive play. *Early Childhood Research Quarterly, 8*, 235-251.

Lier, V. (1997). Approaches to observation in classroom research- observation from an ecological perspective. *TESOL Quarterly, 31*(4), 783-87.

Ministry of Education (1996). *Te Whaariki – Early childhood curriculum.* Wellington: Learning Media.

Newson, J., & Newson, E. (1975). Intersubjectivity and the transmission of culture: on the social origins of symbolic functioning. *Bulletin of the British Psychological Society, 28,* 437-446.

Pellegrini, A. D. &. Yawkey, T.D. (Eds.). (1984). *The development of oral and written language in social contexts*. New Jersey: Ablex Publishing.

Piaget, J. (1962). *Play, dreams and imitation in childhood*. NY: Norton.

Potter, J., & Wetherell, M. (1990). *Discourse and social psychology*. London: Sage Publications.

Reed, E. S. (1995). The ecological approach to language development: a radical solution to Chomsky's and Quine's problems. *Language and Communication, 15*(1), 1-29.

Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context.* New York: Oxford University Press, Inc.

Sinclair, J. M., & Coulthard, R. M. (1975). *Towards an analysis of discourse: The English used by teachers and pupils*. London: OUP.

Trawick-Smith, J. (1998). A qualitative analysis of materially in the preschool years. *Early Childhood Research Quarterly, 13*(3), 433-5.

Tudge, J. R. H. (1992). Processes and consequences of peer collaboration: A Vygotskian analysis. *Child Development, 63*, 1364-1379.

Vygotsky, L. S. (1962). *Thought and language*. Cambridge, Mass.: MIT Press.

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## ABOUT THE AUTHORS

John Jones Parry has a background in teaching and applied linguistics and is currently Head of the Language Support Centre at Manuaku Institute of Technology. His interest in this study came through experience as a teacher and as a parent. The opportunity to work with colleagues who brought new perspectives to the notion of discourse was too difficult to resist. The study has been a steep learning curve both in widening traditional concepts and developing research procedures. Future plans include working with the co-authors to produce a practical tool for early childhood educators based on this study and in applying some of the concepts from this study to tertiary students.

Bill Hagan is a Lecturer in the Department of Social Sciences at Manukau Institute of Technology and teaching in the area of special education, he also has a background in child development. Bill is currently doing doctoral studies in Education at the University of Auckland, developing his interest in the social participation of children in the early childhood area and applying some of the ideas from the above study to children's transition and adjustment to school.

Helen Anderson is the Head of Foundation Education at Manukau Institute of Technology. She has recently completed a Ph.D thesis that looked at the induction of under-prepared (bridging) students into mainstream tertiary education. Her involvement in research in early childhood stems in part from the theoretical concepts used in her thesis studies and in part from her personal background in playcentre. Helen’s current research includes extending the thesis work into identifying the differential effects of gender and ethnicity in Bridging Education and a descriptive study of the induction of Pacific Island students into tertiary education through the “Otara Futrue Learning Village” project. In the future she plans to work with the concepts developed in the “Batman” study and apply them to different settings and subjects.