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**Private speech: A window into the self-talk of kindergarten
children from diverse language backgrounds.**

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Abstract

The immense potential of language, for learning, building relationships, as the embodiment of culture, for an understanding of the world and for expressing 'self', is the underlying theme of this thesis. One less apparent aspect of the language of children is their private speech.

In this thesis the research questions focus on whether children from diverse language backgrounds attending English-speaking kindergartens use private speech. Further, if so, what is the context, who is present when it is used and is there a response from the person or people?

These questions are primarily addressed through observations of eight children as well as recordings of their private speech. An understanding of the context is supported through interviews with the parents and teachers in the kindergartens.

The expectations for this research were largely based on the work of Vygotsky, and adapted to the natural, 'free play' environments of the kindergartens. It was expected that children from diverse language backgrounds in English medium kindergartens would use private speech in their own language. While the children did use private speech (unlike the results from Vygotsky's research) they talked to themselves in English using the language that they had acquired from the community, from the media, from their experiences at kindergarten and in some cases from their families.

Based on Krafft & Berk's categories of private speech, a significant focus of this research is the categories of private speech that were used by individual children. These findings pose interesting insight into the experiences of the children.

This research has shown the child's remarkable ability to tune into the language and culture of context and to do so not only in relation to the socio-cultural context but also through thinking and acting. This study has also provided insight into the early childhood environments and the experiences of the teachers.

As the first known research into private speech/self-talk in early childhood in Aotearoa New Zealand it can serve as a spring-board for further research to enhance our understanding of the child's thinking and learning through private speech.

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Chapter One

Introduction

1.1 Introduction

The research represented here is based in two kindergartens in the Auckland region of *Aotearoa* New Zealand. It focusses on the experiences of young children aged between four and five years, from diverse language backgrounds, who were enrolled in predominantly English medium kindergartens.

Language and its connection to culture, heritage and community, are topical issues in societies where there is diversity of language and culture. Diversity of cultures and languages has significant implications for education which centres teaching and learning through the medium of language.

A lesser acknowledged aspect of young children's language is their spontaneous private speech – their speech which is talk addressed to the self. This self-talk plays a key role as a tool of thought. It can contribute to guiding children's actions and contribute to their learning. For educators, observations of private speech can be used as an indicator of their experience and learning. Based on this premise, children's private speech will form the focus of this study.

1.2 Contextual framework

Aotearoa New Zealand is increasingly multi-ethnic, multilingual and diverse. According to Peddie (2003 pp. 20, 21):

In some New Zealand schools, and especially in Auckland, large numbers of languages (40-50) are spoken on a daily basis, but by only very small numbers of students. This clearly creates major problems for a school that wishes to

cater for its ethnic/language minorities, but equally clearly cannot possibly offer teaching in all of the represented languages.

A similar scenario is experienced in some early childhood centres in Auckland. In my experience there were twenty-two different languages listed on a roll of 90 children at the kindergarten where I taught in the late nineties. With all the best intentions and efforts it was not, and is not, possible for teachers to keep up with any functional level of fluency in all these languages at any given time.

The right to speak one's own language has been articulated and defended at the international level through organisations like *Terralingua* (Skutnabb-Kangas, 2000). From this perspective language may be viewed as both a tie, a symbol system that connects people, and a tool for learning (Skutnabb-Kangas, 1981). In *Aotearoa* New Zealand it is upheld nationally, rather loosely, from a human rights perspective rather than a policy or even pragmatic perspective. There is as yet no official language policy in spite of significant efforts in the late eighties to justify and shape such a policy (Waite, 1992).

In early childhood education, *te reo Māori* (glossary) and Pacific Islands languages are supported through the establishment of Language Nests (immersion language early childhood settings) such as *Te Kohanga Reo*, and Pacific Islands language nests (Ministry of Education, 2002). There are also language nests for other languages including Chinese and French. Thus parents currently have wider choices about the languages that will be used in the education of their children. Yet the evidence from research is that in spite of the options available to them, in the case of Pacific Island children, the majority are sent to mainstream kindergarten and childcare (Burgess & Mara, 2000, p. 20). The diversity of the languages and cultures in the children attending these mainstream kindergartens supports these figures. Many parents are choosing to send their children to these English medium kindergartens. The reasons might be based on proximity or convenience of location. Or it may be that the

kindergarten is close to the school which the child will attend in her¹ fifth or sixth year (perhaps the school which older siblings are attending) or it may be that the parents specifically want their children to learn to speak English. It may be a combination of these or a reason not identified here. Whatever the reason, these children who speak a language other than English at home, find themselves in English language environments.

There is another aspect to be considered. In ECE there is a lower enrolment overall for children from these language backgrounds mentioned previously. As recorded by Peddie, the enrolment in *Te Kohanga Reo* centres had dropped from 14,514 in 1993 to 9,594 in 2001 (Peddie, 2003, p. 21). This is further supported by figures from the Education Review Office (ERO) (glossary) which states

Māori and Pacific children have lower rates of participation in early childhood education than other groups of children in New Zealand. It is likely that services' responsiveness to the diversity of families and children will have some influence on the participation of these groups (Education Review Office, 2004a, p. 6)

The second part of this quote raises concern. Implicit in this statement is a suggestion that these families are choosing not to attend because the services are not responding appropriately to the families. It is not clear on what evidence ERO's statement is based but the discussion in the work of Royal Tangaere (1997) relating to cultural compatibility has relevance. She referred to the importance of cultural compatibility in the statement, *Bronfenbrenner (1979) and Tharp (1989) both emphasized the importance of culturally compatible cross links between the child's microsystems, namely the home and the educational setting, to optimize the language and social development of the child* (Royal Tangaere, 1997, p. 66). The importance of a match between the child's culture and the culture of the educational setting as conducive to learning is also identified in Hohepa, McNaughton & Jenkins (1996).

¹ In this thesis *his* and *her* will be used to represent the child.

ERO's research on diversity in ECE services identifies levels of responsiveness to different cultures on a continuum which starts at a surface acknowledgement in greetings in the languages and incorporation of cultural symbols such as food and art to the deepest level of responsiveness in which there is evidence of 'deep knowledge' of other cultures (Education Review Office, 2004b, p. 8). Essentially, in terms of ECE, the questions raised are whether the centre and home environment are compatible and further, how can centres support children and families from sometimes widely diverse language backgrounds attending the English dominant early childhood centres? The levels of responsiveness between people from different cultures and circumstances are, as in the essence of the holistic development of children, grounded in cognitive, cultural, emotional, spiritual, linguistic, social and even physical (through gestures, body language) domains. The discussion in the ERO document suggests that in the relationships and attitudes which are developed between people in ECE settings there is a complex interplay of self and community that demands more than a cursory understanding of, and more than a superficial empathy with each other (Education Review Office, 2004b).

Finding a solution to this is not the task of this thesis but equally, it cannot be ignored. The task of this research is to examine the private speech of children from diverse language backgrounds in English immersion centres. In so doing the intention is to 'open a window' into their thoughts and experiences. The previous statement by the Education Review Office (2004a) alerts educators to the possibility that these children and their parents and family do not feel the degree of synchronicity with the centres as is intended through the spirit of early childhood pedagogy. Finding solutions to this perceived disparity is difficult because they would tend to be abstract and not related to easily identifiable steps and practical solutions for responsiveness. However, there are some practical strategies to augment practice that can be applied by centres which are specific to the needs and interests of their community. One possible strategy to support

the process is to use Equity Funding (which will be discussed in chapter two) to assist teaching teams. Specifically, employing people who are fluent in a relevant language (such as Samoan at a kindergarten that has a high enrolment of Samoan children) of the children and families at the centres is one possibility to ensure that their cultures and languages are represented in the teaching teams. However this again raises issues about equity for those children whose languages are not represented by the teaching team, including those children whose language is spoken by few children and the centre does not have the resources to employ teachers to cover all languages present. This illustrates that there are no simplistic answers.

The initiative by the Ministry of Education to increase participation in early childhood education is illustrated in the *Strategic Plan* (Ministry of Education, 2002). This is based on a philosophical view that young children benefit from attendance at an early childhood centre. To further understand how children benefit and to illustrate the context of ECE in terms of philosophy, provision and teaching in *Aotearoa* New Zealand, a brief discussion is provided in chapter two of this thesis.

1.3 Rationale for the research

Research is often inspired by personal and/or professional circumstances. My personal experience as a kindergarten teacher in the Auckland region was the catalyst for this research. As identified earlier, in 1997 when we, the teaching team, were analysing the cultural and linguistic make-up of our kindergarten, we found that there were over twenty cultures and languages represented. The experiences at that kindergarten sparked an inquiry into what language difference means for children, their families and for the teachers and adults in early childhood education.

Reading Vygotsky's work (1978) on private speech inspired another inquiry. This inquiry was in response to his research that identified that children in foreign language environments use little, even, in some cases, no private speech (Vygotsky, 1978). When children think that their private speech will not be understood, they become silent. These two factors, diverse languages and cultures and private speech then evolved into the essence of the questions in this research.

Private speech has been researched extensively since Piaget identified egocentric speech in children's cognitive development (1959). The research will be discussed further in chapter three, but for clarity of focus, private speech may be described *as speech which is overtly directed to a young child's self and is not spoken to another listener* (Kirby, 1997, p. 4). Further, private speech is acknowledged as the child's verbalisation of thought (Kohlberg, Yaeger & Hjertholm, 1968). Piaget described egocentric speech as *speech in which the child talks either for himself or for the pleasure of associating anyone who happens to be there with the activities of the moment* (Piaget, 1959, p. 9). Expanding on this it is noted that although Piaget acknowledged that egocentric speech had some value, particularly in supporting action (Harris, 1990) in his view it had little social function or complex intellectual value (Piaget, 1959). Vygotsky's experiments conversely found that egocentric speech had a significant function in children's language and thought (1962). Vygotsky found that private speech has a wider function than as a release of tension and expression of emotion as it is also used to guide the child's actions and to help in finding solutions (Vygotsky, 1962). Particularly relevant in terms of this thesis is Vygotsky's observation that: *prior to mastering his own behavior, the child begins to master his surroundings with the help of speech* (Vygotsky, 1978, p. 25).

According to Vygotsky and demonstrated by subsequent researchers, private speech plays a significant role in the child's self-regulation (1978). In the experiences of children who find themselves in other language environments, this raises the question of whether they feel comfortable enough in the environment to engage in private speech in their own language. Vygotsky's findings that when children were placed in foreign language environments *their private speech dropped to none in some cases and in others to one-eighth of the private speech used in a non-foreign language environment*, is significant for this research (Vygotsky, 1978 p. 233). It acknowledges that children have an awareness of the social context of their environment and that they are further aware that their private speech is being heard. Children, although they use private speech to guide their thought processes and actions, are aware of the people in their environment and this impacts on their use of private speech.

My experience as a kindergarten teacher also led me to believe that while there is a general awareness of private speech, teachers tend not to notice private speech. Kindergartens can be fairly noisy environments and children talking to themselves is likely to go unnoticed more often than not. This is supported by the research of Deniz (2004) who noted that kindergarten and first grade teachers were inclined to ignore private speech.

Contributing to the lack of attention which private speech seems to get in practice, is that it is often spoken quietly, more quietly than social speech. There is also a significant lack of eye-contact and the associated body language to engage a potential listener.

Saville-Troike noted in her discussion on private speech in children acquiring a second language that:

There has been limited evidence of this process (active engagement with the input data i.e. acquiring a second language) in part because private speech is

generally much lower in volume and often inaudible unless the observer or recording equipment is within inches of the speaker (1988, p. 568).

Thus teachers are less likely to notice private speech than social speech. The nature of talk that invites conversation is that it requires a response. The nature of private speech conversely is that it does not: private speech is undemanding and may be overlooked. My personal awareness of private speech was dominated by the private speech that occurred in make-believe play.

It is these personal and professional experiences and research that have led to and augmented the questions posed in this thesis.

1.4 Purpose of the Study

The purpose of this study is to examine the use of private speech in early childhood education within the experiences of children from diverse language backgrounds. Additionally, the aim is to document the experiences of teachers in relation to linguistic and cultural diversity and private speech and, through interviews, to involve the parents of the children in the case studies in the research. The research questions posed in this thesis are: *Do children from 'other' language backgrounds in English language environments use private speech? If so, in what context and under what circumstances do they use private speech?*

Private speech assumes different forms and fulfils different functions, such as the expression of fantasy private speech in pretend telephone talk and self-guidance private speech used to guide action. In the research by Krafft and Berk (1998) that is largely used to inform the structure of this research study, private speech is analysed according to categories of context and function. These will be discussed further in the following chapters but they include: affective, word play and repetition, fantasy play, descriptive and self-guidance, inaudible

uttering and other (Krafft & Berk, 1998, pp. 646, 647). The utterances of private speech were observed informally in the contexts of the kindergartens. It is intended that the analysis of these findings will generate a fuller insight and understanding of children's experiences, including the play contexts, the role of the adult and the social contexts of play in relation to the utterances of private speech. Language use, including syntax, structure and patterns that are identified in the utterances will be analysed.

It is further intended that this study will stimulate new research and, through fuller awareness and understanding, augment practice. Theories related to private speech which in my experience currently seem to have greater acknowledgement in 'mainstream' bodies of knowledge in teacher education, are those of Piaget (1959) and Vygotsky (1978; 1986). It is hoped that the extensive research on private speech which has been, and is being conducted, particularly in the western world, will reach a wider audience of pre-service and in-service early childhood educators.

The influences of theorists on education impact for years after these theories are constructed. In early childhood education these particularly include psychoanalytical theories, behaviourist theories, social learning theories, cognitive theories, information processing, ethology, socio-cultural theories, and ecological systems theory (Berk, 2001).

As a cognitive and developmental theorist, Piaget developed theories that have had a significant influence on early childhood education. Vygotsky has both validated some of Piaget's work and challenged other aspects. Relevant to this thesis is that Vygotsky revised Piaget's interpretation of egocentric speech. In contradiction to Piaget's work, Vygotsky posited that egocentric speech is located in a social context (Vygotsky, 1978). Interestingly, Piaget had the opportunity to respond to Vygotsky's critique of his theories. Piaget said that he

agreed with Vygotsky on one aspect, but not on another, namely, in both Piaget and Vygotsky's view there is consensus that when children begin to use language it is for *global communication* which later becomes *egocentric and communicative*. However, Piaget did not agree with Vygotsky on the *meaning of socialization* (Piaget cited in Lloyd & Fernyhough, 1999, pp. 248, 249). It is this difference in their conceptualisation of what socialization means to the child and her learning that underpins the fundamental difference in their theories about egocentric speech. Piaget viewed socialization as *intellectual cooperation*, an ability to understand the other's perspective, which is not apparent in egocentric speech, whereas Vygotsky saw *the two forms of language as equally socialized* (Piaget cited in Lloyd & Fernyhough, 1999, pp. 248, 249).

Ginsburg & Opper describe this Piagetian view in the statement: *Often the child does not assume the point of view of the listener; he talks of himself, to himself, and by himself* (1969, p. 89).

Although Piaget's comments and perspectives are of interest, this thesis is essentially focussed on Vygotsky's perspective (1978) that private speech is social. It is Vygotsky's research that ultimately prompted rigorous and prolific research into what became termed as private speech. Vygotsky's theory forms the basis for this research study into the experiences of children from diverse language backgrounds in predominantly English medium kindergartens.

The private speech utterances which emerge from the research will be analysed according to a number of aspects. These include analysis of the private speech utterances according to the categories based on Krafft & Berk's (1998) research. Other considerations will be peer involvement in play, the teacher's role (Kirby, 1997) and the goal of the activity (Krafft & Berk, 1998). Additionally, the use of language, including the structure and syntax of private speech utterances and any patterns that emerge in the use of language will be commented on.

Further, Vygotsky's theory and later research have identified that teachers can play a role in using private speech as an indication of thought processes and to inform teachers of how they can support that learning. These ideas are explored in the following chapters.

1.5 Organisation of this thesis

Chapter one

The current chapter provides an overview, a background and a rationale for this study.

Chapter two

A brief background of Early Childhood Education (ECE) in *Aotearoa* New Zealand is included. Chapter two describes the provision of ECE in the context of *Aotearoa* New Zealand.

Chapter three

Literature that examines the broader issues surrounding language and bilingualism is explored. The research on private speech beginning with its inception by Piaget as a new concept, namely egocentric speech, is examined extensively. This is explored both as a concept and also in terms of the historical progression of research, from the early twentieth century to the present.

Chapter four

Methodology and method are explained in chapter four. The research, although it is qualitative and naturalistic in approach and design, in order to collate and manage the private speech occurrences has made some use of quantitative analysis through the tables and figures presented in the results in chapter five.

Chapter five

The results of the research in the prolonged preliminary study in kindergarten one, the results from kindergarten two and the summary of the interviews are presented.

Chapter six

The results from chapter five are analysed in relation to the categories of private speech identified in Krafft & Berk's research (1998). The analysis examines both the context and patterns.

Chapter seven

In the conclusion the analysis is integrated, the findings are confirmed and questions regarding the possible implications of this research are raised.

Chapter Two

Early Childhood Education in *Aotearoa* New Zealand.

2.1 Introduction

In order to establish the context for this research, this chapter provides a background to early childhood education (ECE) in *Aotearoa* New Zealand. The research was carried out in two public kindergartens in the Auckland region, which is a major region on the North Island with a higher proportion of cultural and linguistic diversity than the rest of *Aotearoa* New Zealand (Statistics NZ, 2001, p. 2). In this thesis the kindergartens are identified as “kindergarten one” and “kindergarten two” or abbreviated to “K1” and “K2” respectively.

2.2 *Aotearoa* New Zealand

The national picture of ECE in *Aotearoa* New Zealand is that it is currently offered in diverse ways to suit the range of needs of parents, families and their young children. There are a number of options available to parents and families in the provision of ECE. These may be in the form of home-based care and education, community facilities (not for profit), and private providers. Further options include Family Day Care, Education and Care centres, Playcentres, Free kindergartens, *Nga Kohanga Reo*, Pacific Island Language groups and early childhood centres, *Anau Ako Pasifika* (home-based services for families from Pacific nations) the Correspondence School (Meade 1999, cited in Meade & Podmore, 2002, p. 6), and License-exempt playgroups, Parent support and development programmes, (Ministry of Education, 2002). The programme

offered may be sessional, for a few hours at a time, on a casual basis, or full time (Ministry of Education, 2002).

The ranges of provision of ECE described in the preceding paragraph are related to social, economic and political contexts and are therefore subject to change but this is currently the status. There are also variations in the philosophical and curriculum approaches including Montessori, Steiner, *Te Kohanga Reo* (Māori immersion language nests) and *Tagata Pasefika* (Pacific Islands early childhood centres, some of which are immersion language nests) as well as centres which incorporate pedagogy from Reggio Emilia in Italy. There are also centres which apply eclectic programme approaches to their programmes making use of ideas such as Reggio Emilia and Montessori to underpin their curriculum (Devereux & Miller, 2003). The choice of programme reflects complex interplays between individual and community needs, the purpose and philosophy of the instigators of the programme and its continued development within the influences of wider context.

The overall thread underpinning these approaches is generally the pedagogy of play, the acknowledgement that it is through play that the child actively engages with the world of knowledge, the world of experience within a social context (Hughes, 2003).

For each and all the different ECE settings there is funding provision from the Ministry of Education which is awarded according to type of service as well as a quality index. The Ministry of Education initiative to ensure that ECE teachers are qualified, has essentially moved ECE out of a domain where at a basic level, the criteria of suitable personalities, the ability to nurture and to support children's learning within an ECE environment, was adequate. It is officially no longer adequate and the benchmark qualification by the year 2012 for ECE teachers in teacher-led services will be a diploma or degree in early childhood

education (Ministry of Education, 2002). Since kindergarten teachers are already required to be qualified, this benchmark will affect Education and Care settings such as child care centres.

Funding of ECE provision is located firmly in a political, economic and social context and as trends in education change over time, with changes in governments, and influenced by international events and ideas, so do funding systems. Unlike schooling which officially is from the age of six years (although it is common practice in New Zealand for children to start school on their fifth birthday, this is a parental choice), ECE is not compulsory. Education broadly is subject to government policy, the funding of ECE changes with governmental change and the related priorities in their political, economic and educational policies.

While funding issues directly affect parents and families and therefore young children, they also affect the educators who work in ECE. In a country where education is deemed to be valued and where the first women in modern western society were given the vote, it is fair to expect that funding of education would receive high priority, through all the phases of education. National research projects such as the longitudinal study undertaken in *Aotearoa New Zealand Five Years Old and Competent*, (whilst recently also sparking some controversy), indicated the value of early childhood education as transformative for the future (Wylie, 1996). The role of ECE in making a difference to the lives of young children and their families is expressed in numerous relevant educational documents and publications including New Zealand Educational Institute (NZEI) (2000); Ministry of Education (2002); and the Education Review Office (2004a). Yet there are currently anomalies in the funding of salaries for ECE educators particularly in some private centres which may not yet match the high status that is accorded to the role of ECE through these documents and research and the educators who work in this phase of education.

It is hoped that this will change in the future so that the very young, the children for whom ECE is intended, who are the most vulnerable, will have the benefit of teachers who experience optimal rewards through conditions of service. While a high standard of practice may be achieved through the vocational commitment of these teachers, there is an implicit expectation that teachers, who are acknowledged through higher conditions of service that respect their needs, are better placed to offer the highest standards of practice (NZEI, 2000).

At the Public ('Free') Kindergartens which form the context for this research all teachers are qualified with a minimum of either a diploma or degree in ECE. They currently receive equitable salaries relative to teachers in the primary school sector but because ECE is not compulsory this status may be significantly affected by trends in the political, economic and social climate.

2.3 Provision of ECE in *Aotearoa* New Zealand

Since the inception of the first Free Kindergarten in Dunedin in 1889, there have been progressive changes in the provision of ECE (Osborne, 2002). The kindergarten movement started out to meet a social need rather than an educational one, keeping 'poor' children off the streets. The provision of ECE has moved from a social welfare focus to an educational one. This shift was officially noted when ECE joined other phases of education by being moved from the Department of Social Welfare to the Ministry of Education in 1986 (Osborne, 2002). In essence this means that ECE is part of the education system but there is still a long way to go to ensure that there is pay parity not only for teachers in kindergarten but also for teachers in child care. The drive to have all teachers qualified by 2012 should further contribute to an acknowledgement of quality and work towards consistency in the professional status of ECE teachers.

Quality is the broad label that is used to describe optimum contexts in ECE. This notion of quality is explored through a number of initiatives and Ministry documents including *Te Whāriki* (Ministry of Education, 1996), *Quality in Action* (Ministry of Education, 1998), and *The Quality Journey* (Ministry of Education, 1999). Services are also rewarded for these identified dimensions of quality through a funding system which is based on the 10-year Strategic Plan described in *Pathways to the Future: Nga Huarahi Arataki* (Ministry of Education, 2002). The funding system is complex but essentially it is based on five streams.

These five streams are:

The ECE Funding Subsidy which is bulk funding for ECE services, contributing up to six hours a day and 30 hours a week for each child attending a service. It is based on five payment rates that reflect the qualifications of the staff and the ratios of staff to children. This system effectively rewards centres for employing qualified teachers and for having optimal ratios of teachers to children.

License-exempt playgroups receive limited funding. In order to receive the funding these services must meet basic requirements such as *basic governance, safety, programme, supervision and record-keeping*.

Equity funding is available to community-based services in a range of situations including low socio-economic areas; a number of children may have special needs or come from homes that are non-English speaking; are in an isolated area; and the centre caters for different languages and/or cultures.

Discretionary grants may be applied for by community-based services for capital costs or for property development.

Special education support is provided through specialist educational support and paraprofessional support for children with special needs.

It is further noted that:

A childcare subsidy is funded through the Ministry of Social Development and helps low and middle income families to pay for ECE.

(Ministry of Education, 2004, pp. 6, 7)

Variations in funding of ECE are broader than the funding of services. Both kindergartens which were part of the research study benefited from the Equity Funding made available by the Ministry of Education in response to the needs of their kindergarten which is decile 1. Discussion with the teachers about Equity Funding confirmed that such funding can have a major impact on the experience for teachers, children and families.

Additional to the child care subsidy, there was a new initiative being offered by the Labour Government in 2004 which expressed the intention to offer 20 hours free community based ECE for three to four year old children from 2007 (Ministry of Education, 2004). As 2005 is an election year, this issue was being used in the political campaign. The two dominant political parties, Labour and National, used this as one of the issues to draw the votes of parents with young children during their election campaigns. The National Party responded to Labour's promise by saying that it would offer a tax rebate across the wide use of ECE services. Clearly ECE and the provision of ECE are situated within the realm of politics, economics and social needs, values and beliefs.

In spite of the shift from Social Welfare to Education, social issues continue to form part of the agenda for ECE. The social needs of the children in Dunedin addressed in the provision of kindergartens over a hundred years ago are still an issue. There is an acknowledgement by the Ministry of Education that they want to extend access to quality ECE founded in the belief that ECE can contribute to a brighter future for young children (Ministry of Education, 2002). It has to be acknowledged that ECE in 2005 is achieving much more than the original

objective of keeping 'poor' children off the streets. Through the Ministry of Education documents, through research initiatives in the ECE professional community and the dissemination of these research findings to the profession through documents and through professional development, the evolving philosophy, the beliefs and expectations of the Ministry of Education in *Aotearoa* New Zealand are articulated. These beliefs define a code of practice, a basis for curriculum that is expected to be followed by all services nationally. The Ministry of Education documents are generic enough to allow for local interpretation while meeting these expectations. *Te Whāriki* is further based on international and national theories and grounded in national values, including the Treaty of Waitangi (Ministry of Education, 1996). However, the Ministry of Education documents are part of an evolving approach to ECE within the broader contexts of education and society which shape the future. Currently the document that impacts fundamentally and widely on ECE practice and philosophy is *Te Whāriki* (Ministry of Education, 1996) with a plan to make the implementation of this document a legal requirement for ECE services (Ministry of Education, 2002).

2.4 *Te Whāriki*²: The mat on which contemporary ECE is based

Te Whāriki is a bicultural curriculum document that reflects the spirit of partnership between Māori and *Pakeha* (glossary) within the *Aotearoa* New Zealand context. It achieves a level of biculturalism that both in the process of developing this document and in its articulated discourse respects this partnership. Māori immersion curriculum is included in Part B of the document, clearly recognizing Māori pedagogy and Māori *tikanga* (glossary) and language (Ministry of Education, 1996). Bicultural development is woven into the fabric

² *Te Whāriki* means 'the mat' in Māori and refers to the weaving of the different principles and strands which make up the early childhood curriculum of New Zealand *Aotearoa*.

of the document. Further, the thread of cultural diversity is evident in the statement, *the early childhood curriculum supports the cultural identity of all children, affirms and celebrates cultural differences, and aims to help children gain a positive awareness of their own and other cultures* (Ministry of Education, 1996, p.18).

Nuttall identified three significant threads in her interpretation of *Te Whāriki*. These are: *the importance of culture, the role that socio-cultural constructivist theories of learning can play in understanding Te Whāriki* and thirdly, *the difficulty of implementing Te Whāriki in practical terms* (Nuttall, 2003, pp.11, 12). The importance of culture and socio-cultural theory are embedded in the principles and strands and the discussion in the document. The difficulty of implementing *Te Whāriki* in practical terms may be based on the omissions of practical knowledge in favour of philosophy and ideals. The structure of this curriculum document suggests that there is an assumption that teachers will have the practical knowledge to implement these values and ideals through practice. The ideals and values are articulated to inform practice at a level of thought and attitude rather than in terms of basic practice. There are guidelines for curriculum implementation and for understanding the development of young children but these are not at a content curriculum level, rather they guide praxis focusing on relationships and interactions in the ECE context.

Embedded in the defined values of this document are high expectations for a standard of care and education in ECE. These are expressed through the principles of Holistic Development *Kotahitanga*, Empowerment *Whakamana*, Family and Community *Whānau tangata* and Relationships *Ngā Hononga*; and through the strands of Wellbeing *Mana Atua*, Belonging *Mana Whenua*, Contribution *Mana Tangata*, Communication *Mana Reo* and Exploration *Mana Aotūroa* (Ministry of Education 1996). *Te Whāriki* is designed as a curriculum document and does well to define its goals yet it does not define practice in

terms of curriculum approaches. While ideas for open-ended experiences are included, the terms that define curriculum approaches such as *free expression* or *free play*, are not referred to in *Te Whāriki* (Ministry of Education, 1996), nor does this document make specific reference to the difference between *process* (the steps in the learning journey through experience) and *product* (the end or final outcome of the learning such as a completed painting), yet these concepts are fundamental to current practice in ECE generally including public kindergarten. Approaches such as *free play* are regarded as highly desirable in early childhood rhetoric, and sanctioned by numerous ECE advocates and activists including Gwen Somerset (May, 2001). Instead *Te Whāriki* provides a broad definition of curriculum:

The term "curriculum" is used in this document to describe the sum total of experiences, activities, and events, whether direct or indirect, which occur within an environment designed to foster children's learning and development (Ministry of Education, 1996, p. 10).

This description of curriculum fits comfortably into the broad framework of the document. Educators essentially have to decide for themselves what those experiences and activities will be and then weigh them up against the ideals presented in the principles, strands and goals of *Te Whāriki*. The practicalities of practice have to be interpreted by each service. This means that although there is a national curriculum for ECE, this is interpreted in diverse ways.

In a significant way *Te Whāriki* has contributed to acknowledging the philosophy and therefore the persona of early childhood educators. It articulates the 'I believe' of ECE educators and has become the embodiment of the *Aotearoa* New Zealand context. *Te Whāriki* acknowledges and advocates for developmentally appropriate practice, socio-cultural theory and makes links to primary education curriculum documents in the New Zealand Curriculum Framework (Ministry of Education, 1993). *Te Whāriki*, like ECE, is not regarded as static but is perceived as dynamic and in a process of evolving (Cullen, 2003).

In order to work as an early childhood educator in New Zealand, knowledge of *Te Whāriki* is required at an in-depth level. Student teachers not only learn about play, human development theory, critical theory and professional practice, they study *Te Whāriki* and learn to work with this document to further their understanding about how young children learn and how that learning can be supported. *Te Whāriki* does not stand alone however and students study widely, including complementary documents, and with increasingly complex reflection and critique of literature and practice. What counts as necessary knowledge for ECE educators is influenced at international and national level, particularly by research and the professional responses to that research.

2.5 Training to be an ECE teacher in *Aotearoa* New Zealand

A recent government initiative requires that all ECE teachers be qualified by 2012 (Ministry of Education, 2002). There are numerous pathways to achieve this qualification and numerous accredited organisations offer a diploma or degree in ECE as the entry level to the profession. There are opportunities for further study to PhD level at some Universities which have aligned themselves to the ECE phase of education. According to the list of accredited providers in the *TEACHnz* document there are nineteen accredited tertiary providers who offer a qualification in ECE (Ministry of Education, 2005). The body of professional knowledge, the expectations for professional practice which underpin tertiary study in ECE are, like *Te Whāriki*, evolving.

The purpose of this research study is to contribute to the body of professional knowledge by examining a phenomenon which is not part of the popular agenda of research in *Aotearoa* New Zealand. It is expected that the research into the private speech of children from diverse language backgrounds will invite further professional inquiry, further and deeper exploration of the experiences and

thoughts of young children. In the pre-service education of teachers, this inquiry can be introduced to expand the body of knowledge and inquiry. It can contribute to challenging the notion of what body of knowledge counts as valuable and necessary.

In my personal experiences as a teacher and as a lecturer, what is defined as necessary knowledge does not include more than a brief examination of private speech. Yet Vygotsky and numerous contemporary researchers have signalled the relevance of this spontaneous private speech to young children's thinking, learning and self-expression. It is intended that this research will contribute in part to a re-examination of what counts as valid knowledge for emergent teachers so that private speech is examined for the potential that is there to understand children's inner thought.

Chapter Three

Balancing bilingualism, empowerment and private speech

3.1 Introduction

Central to the review of the literature relevant to this thesis, is language. It is generally accepted that language impacts on most aspects of children's lives. Whilst the primary purpose of this thesis is to investigate private speech as it is expressed in children from diverse language backgrounds, the issues surrounding their language play a pivotal role in their experience. These warrant inclusion in the discussion. The context of language, both macro and micro issues, which contribute to the overall experience of the child and also influence his language, will be discussed. This review discusses the educational challenges of balancing bilingualism and issues for young children from diverse language backgrounds. Concepts such as scaffolding and the zone of proximal development are reviewed as well as the research on the private speech of children, particularly young children as applied to the context of language learning in early childhood education.

The work by authors such as Skutnabb-Kangas (2000) provides a filter through which heritage language is viewed in this study. Language is viewed as a right and whilst the values and challenges of bilingualism and multilingualism are acknowledged, the right to one's own heritage language is a fundamental principle in this thesis.

The diversity of language in *Aotearoa* New Zealand and particularly in education has been discussed earlier in this thesis. Diversity of language is also

a feature of countries like Australia and the United States of America, whose immigrants bring with them languages from diverse parts of the globe. In ECE centres in these countries but particularly in *Aotearoa* New Zealand, it is expected that the experience for young children from these diverse language backgrounds, as well as the experience of their families, is a positive one. Certainly, the philosophy and curriculum in early childhood education in *Aotearoa* New Zealand is based on expectations of what constitutes 'best practice' and a revision of this notion, in the 'best evidence synthesis' (Ministry of Education, 2003, p. 46). These expectations are supported through the documents that underpin ECE. These are further articulated particularly in the principles and strands of the early childhood curriculum, *Te Whāriki* (Ministry of Education, 1996); *Quality in Action* (Ministry of Education, 1998); the ECE *Code of Ethics* (NZEI National Working Party, 1995) and the Education Review Office (2004a). Each individually and collectively, in principle, acknowledges the rights of the child and his or her family and advocate for relationships between educators and children, *whānau* and communities to foster the learning and development of young children.

3.2 Language and empowerment

In a model that sees language as a resource and not a problem (McKay & Wong, 1988) and located in an ECE centre which supports the languages of children, language may be viewed as empowering. The principle of Empowerment *Whakamana* is a foundation principle in *Te Whāriki* (Ministry of Education, 1996). Through the curriculum children are empowered to:

Take increasing responsibility for their own learning and care;

Develop an enhanced sense of self-worth, identity, confidence, and enjoyment;

Contribute their own special strengths and interests;

Learn useful and appropriate ways to find out what they want to know;

Understand their own individual ways of learning and being creative.

(Ministry of Education, 1996, p. 40).

All the above have relevance but perhaps the principle of *an enhanced sense of self-worth, identity, confidence and enjoyment* is particularly pertinent for children from diverse language backgrounds attending English medium centres (Ministry of Education, 1996, p. 40). Although the principles of *Te Whāriki* support the child's language and culture, how much the child is supported in practice will depend on a number of factors. These factors include the attitudes of the people, particularly the teachers at the centre, the community and the role that the community plays in the centre's day to day functioning, as well as the whole centre environment. Children may be empowered through their interaction with others, through the use of language, or not (Alladina, 1995; Skutnabb-Kangas, 1981).

Whilst the attitudes of teachers in individual early childhood centres in New Zealand is acknowledged to be one of support for children and families from different language backgrounds, these centres do not exist in a vacuum. Wider influences pervade the experience of these children and their families from other than English language backgrounds (Bronfenbrenner, 1979).

History is full of stories where language has been used as a political tool to dominate a society. While not making any attempt to analyse the political and social structures in *Aotearoa* New Zealand society, these need to be acknowledged. This chapter examines some historical issues around language domination that impact on the languages and lives of people who find themselves, for whatever reason, in 'foreign' language environments. One of

these issues is the challenge for families to maintain their first language whilst acquiring the dominant language. It is in communities where there is a dominant language and culture that concern for language rights, the right to speak one's own language, particularly in a public context such as in education, have been raised.

In an early childhood centre in a city like Auckland, there may be a variety of languages spoken by the children and the family. The challenge of supporting the language of these children and families optimally is experienced on a daily basis. These challenges relate to practical issues such as functional communication between teachers, parents, extended family/*whānau* and teachers and the children. While the practical issues are the most obvious, there are further underlying issues.

3.3 Bilingualism

Underlying the philosophy of any early childhood centre, and the key to how these issues are managed, is an attitude to language issues (Baker, 1992). In terms of language, the philosophy or the way in which language is viewed will inform the way in which language issues are addressed. For this discussion two different perspectives can be identified. If the centre is strongly 'assimilationist' (Baker, 1993), then from an extreme position, the child's community language would be regarded as acceptable for home but not accommodated or supported at the centre. Skutnabb-Kangas & Phillipson use the term *imposing assimilation* as *forced inclusion into both the dominant culture and dominant language* (1995, p. 71). However, in acknowledging this, it also has to be argued that assimilation is not necessarily 'forced inclusion' as an ideological tool effected by the organisation. It may be based on the choice made by parents for a particular language context and early childhood service that suits the family's

needs. However, whatever the rationale behind the position, assimilation has implications for the child's experience of language and whether that experience will be one of subtractive bilingualism or additive bilingualism. In other words, as in subtractive bilingualism, where the child's heritage language will be diminished and eventually lost as she acquires the additional language, or as in additive bilingualism, where the heritage language will continue to develop as she acquires the additional language (May, Hill & Tiakiwai, 2004, p. 8). These authors, in discussing the differences in bilingualism, note the significant role of the perceived status of the language in contributing to these models of bilingualism (ibid, 2004). For example, a positive status for the minority language may contribute to additive bilingualism. It can be argued that these perceptions of status may be overt or covert: overtly entrenched at a macro level in government systems, in the society and in the educational organisation or subtle and covert, perhaps even subconscious, but embedded in community and practice.

3.4 Balancing Bilingualism

In terms of a move towards affirming the heritage language, the home language of the child, an empowering model would be one of 'balanced bilingualism' (Baker, 1993). In 'balanced bilingualism', the first language of the child is supported simultaneously as the child acquires the additional language (Bruce & Meggitt, 1999, pp 2, 3). However, another perspective on this, as expressed by Baker & Prys Jones, is that 'balanced bilingualism' is not an appropriate term since there is seldom a true balance in the degree of fluency or competency in each language (1998). Bilingualism may be 'less balanced' in that the child may be more fluent in one language than another (Baker, 1993). Perhaps the term *balancing bilingualism* (Peddie, personal communication, 2003), best describes attempts at fostering some balance, as opposed to inequity, in the development

of languages. For children in early childhood this translates to teachers making extensive efforts to support the child's first language and to ensuring that attitudes that value assimilation are rejected and attitudes that foster 'balancing bilingualism' are supported.

Attitudes, resources, and the relationship between teacher, parent and child are all fundamental issues in contributing to balancing bilingualism. Further, Holmes maintained that the school plays a critical role in promoting bilingualism (Holmes, 1987). This affirms the notion that the attitude of the teachers and community in early childhood centres can be proactive in fostering the development of bilingualism (Holmes, 1987).

From this perspective, the ideal language environment would be one in which teachers are fluent in the languages spoken by the children but this is unrealistic, particularly in terms of the diversity experienced at some centres. Another ideal would be to have parents help out at the centre so that children can communicate in their own language. Neither scenario is likely to be common or experienced extensively. The current practice is more likely to be one where teachers devise support strategies. These strategies may include learning a few phrases in the child's mother tongue; using precise ways to communicate with children and families in English; invoking the aid of other people speaking the child's language; as well as generally striving to support and empower the children and families in as many ways (through music, pictures, books, resources) as they can.

This overall practice currently appears to be the most manageable and has the potential to foster bilingualism for children and families within an overtly supportive relationship between teachers and the adults in the child's lives. These strategies and the importance of supporting the community language of

the child are identified in ECE literature. This statement by Tabors strengthens the urgency for these to be addressed:

Early childhood educators need to be aware that social isolation and linguistic constraints are frequently a feature of second-language learners' early experience in a setting where their home language is not available to them (Tabors, 1998, p. 24).

Thompson (2000) described an ethno-linguistic study carried out in a nursery school of a group of eight children from Pakistani origin in London. This study highlights the change in British society, particularly in England, from a mono-linguistic country to one that is steeped in cultural and linguistic diversity. The focus in Thompson's study is on the language which the children used in time spent at the nursery school, revealing through rich data their use of English and their own language, Mirpuri-Panjabi. These children were all 'bilingual' and although the spirit of the education system perhaps supported their heritage language, there is no official language policy in Britain (Thompson, 2000, p. 37) which would clarify the official approach to bilingualism. This means that in countries like Britain and New Zealand (which does not yet have an official language policy), the attitudes and approaches to bilingualism are open to interpretation.

The complexity of defining bilingualism (within a relative continuum of language competency) and the debate about when and in what contexts learning another language is optimal are discussed in the Ministry of Education document on bilingual/immersion education (May, Hill & Tiakiwai, 2004). Although there are differing arguments in clarifying these issues there are acknowledged advantages both in children maintaining and developing their own language and also in learning another language. These include but go beyond culture, heritage, relationship building and learning. According to Corson's view, bilinguals are at an advantage over monolinguals in a number of ways including:

*Bilinguals are superior to monolinguals on divergent thinking tests.
Bilinguals have some advantage in their analytical orientation to language.*

Bilinguals also show some increased social sensitivity in situations requiring verbal communication.

Bilinguals have some advantages in thinking and in analytical functioning.

(Corson, 1999, p. 176)

In essence these statements by Corson mean that bilingual children are more able to think of a number of possible solutions to problems; they would be at an advantage in grasping grammatical structures; and they seem to be more aware of the appropriateness of social language.

The fact that bilingual children have grasped more than one language has implication for more than language use. Indeed, from Corson's perspective it increases their cognitive ability and their ability to analyze problems or issues. This further makes a case for bilingualism as a favourable option, a view that is supported by a number of language researchers (Katz, 1982; Hirsch, 1987; Saville-Troike, 1988; Alladina, 1995; Baker & Prys Jones, 1998; Skutnabb-Kangas, 2000). In spite of this, it must be noted that the value and advantages of bilingualism have been contested particularly in the research prior to the sixties (May, Hill & Tiakiwai, 2004).

However, in more recent times the acquisition of an additional language or languages has come to be seen as a credit and a resource rather than as a problem. This view is supported by Corson (1999) who, as described above, sees bilinguals as superior in divergent thinking, advantaged in analysing language, having increased social sensitivity in interactions and advantaged in analytical thinking. Similarly, McKay and Wong (1988) see such language facility as a resource.

3.5 Language and communication

A desired outcome in terms of language is for the child's right to speak her own language not only to be acknowledged in principle but also in practice. From this perspective, any shift from assimilation to fostering 'balancing' bilingualism is a welcome development. Countries like New Zealand, Australia and Britain have in the past practised assimilation hence the continuation of English as the dominant language in these countries. The emphasis on language as a human right as propounded by *Terralingua* (Skutnabb-Kangas, 2000) advocates for a shift in attitude towards minority languages. To embrace this shift in early childhood education, to empower children through equitable opportunities, is conceivably a natural attitude for teachers who are predisposed to seek optimum learning for young children. How this can be achieved in practice is a much more complex issue.

As suggested previously, teachers may use a number of strategies including nonverbal communication when working with children whose languages differ from the language of the centre. This practice seems to be a natural strategy for people in foreign language environments, including in early childhood centres. People instinctively use gestures when they are faced with situations in which they are trying to communicate. (An example of this is when visiting a foreign country, people trying to find directions to a destination will use hand signals, sometimes exaggerated, to indicate the direction to take). This strategy, using gestures to support communication, is embedded in verbal communication. Body language may support, affirm or even contradict (to an astute observer) the message that is given through language. In a school classroom situation, nonverbal signals can modify or support what a teacher says (Neill, 1991, p. 1). In terms of EAL children in an early childhood context, the teacher's nonverbal communication, intonation of voice and contextual clues may be what they have

to rely on to understand a message. The same applies for teachers who cannot understand the spoken language of a child.

The role of nonverbal communication is acknowledged by Royal Tangaere who supports her discussion with reference to Snow (1977), that the adult will use verbal and nonverbal actions to convey the message and interpret any cues, verbal or nonverbal, from the child (Royal Tangaere, 1997, p. 14). *Te Whāriki* also acknowledges this and refers to the use of nonverbal communication and the importance of acknowledging this in infants, toddlers and young children (Ministry of Education, 1996).

This area of communication offers huge potential for understanding the experiences of children. While the focus in this research is on private speech, another dimension that could have been considered to augment an understanding of their experiences, if there had been scope for this in the challenges of the research project, is their nonverbal communication.

It is likely that gestures would assist in supporting the children's understanding, thereby bridging communication between teacher and child. Taking this one step further, basic sign language use by teachers to support language communication could be considered as both for ESL (English as a second language) support as well as in working for inclusion. The use of signing should be researched and the impact of its use be investigated. The use of sign language to support language skills for all children has significant potential that is yet to be evaluated in terms of English as a foreign language (EFL). Perhaps the term English as a foreign language should be replaced in the context of this research by 'English as an additional language' (EAL). In New Zealand, English currently pervades the society and therefore cannot be seen as a foreign language. From this point the term EFL will be replaced by EAL.

The use of gestures to strengthen communication whether in monolingual or diverse language environments offers interesting opportunities as strategies for teachers. Adaptations by teachers in terms of language style and the ways in which they match their style to the needs of the child are also interesting. This is also evident in the styles of communication of the child. There seems to be a communicative interplay between teacher and child. This interaction is 'performed' by both the teacher and the child. In effective communicative relationships the teacher communicates in ways which will enhance communication with the child and the child uses strategies to elicit a response from the teacher.

In research conducted by Cicognani & Zani (1992), children elicited responses from teachers that assisted their understanding of the language spoken. They also found that children with poorer verbal production communicated for the most part through nonverbal codes. These children seemed to play a more passive role in the interaction, responding when called upon.

This induces the teacher to invite children to talk by using a greater number of proposals and by explicitly inviting the child to participate. Children with richer verbal production are more active in conversation, and this induces teachers to modify their language, adapting a style aimed at sustaining and encouraging the existing verbal production (by using, for example, more comments and empathic support). (Cicognani & Zani, 1992, p. 1).

Thus teachers adapt their language to that of the child. The use of carefully chosen language modified to the language needs and abilities of the child, is a strategy used by teachers. Other factors, essentially co-constructing meaning and working through responsive, reciprocal and respectful relationships (Ministry of Education, 1996) are in evidence through the role of the adult in supporting the child. These relational interactions are evident in a number of ways such as the establishment of a relationship between teacher, child and family, and the teacher participating in play, and sharing experience. All these contribute to empowering the child and his culture and language.

McNeill (1992, p. 295) referred to the concept of *language-gesture acquisition* to explain the cultural-linguistic acquisition of language and the gestures that are endemic to a culture. Acknowledging this added dimension to language acquisition illustrates the complexity in acquiring a language. Language is not only about words, it is significantly about a way of being and acting within a culture and community (Royal Tangaere, 1997).

Given that communication involves multiple layers, including nonverbal signals, strategic language styles and codes, there are different layers of language occurring in early childhood centres. These include the more obvious interpersonal communication between teacher-child, adult-child and child-child. There are further aspects such as the culture of the classroom as expressed in the language and what is particularly relevant for this research, the private speech of children.

3.6 Educational contexts

The language used in the primary school classroom has been studied in the research of Alton-Lee, Nuthall & Patrick (1993) and Cazden (2001). Their research reveals that there are complexities in the function of language, particularly in teacher-pupil language. Alton-Lee, Nuthall & Patrick's research in *Aotearoa* New Zealand showed these complexities in the private talk of children in the classroom through their research which *allows us to better understand children's actual experiences as they struggle with the overt and covert messages of the curriculum* (1993, p. 50).

Their research led them to the conclusion that not all utterances were for communication. *Much of the children's talk did involve communication, but a significant proportion involved the children's personal and hidden verbal*

responses to the classroom processes (Alton-Lee et al., 1993, p. 58). The complexities of the classroom, identified as four major dimensions implicit in classroom culture included *the rules of order, the task routines, the curriculum, and the criteria by which children's performances is evaluated* (Alton-Lee et al., 1993, p. 58). These became evident, in different ways, through the private speech, the speech that tends to be covert and 'underground', of the four primary school children in the case study. The research in the classroom provided significant insight into the classroom experiences of the children in the study. While an early childhood centre has a different culture, the implicit nature of these dimensions and ECE processes is no less powerful. The focus of this thesis serves to emphasise the function of language, particularly private speech, within the complex paradigm of relationships and interactions within the ECE context.

It has been noted in the preceding discussion that language is used not merely for purposes of communication. It is essentially a social activity, embedded in culture and heritage, contributing to the fostering of relationships and has been identified as a significant factor in learning (Vygotsky, 1978; Nelson, 1996; Perez & Torres-Guzman, 2002). Perez & Torres-Guzman, in defining the child as learner stated, *because language helps children make sense of and master their world, it is intimately and interactively related to cognition* (2002, p. 33).

Nelson noted that language *is a catalyst of cognitive change during early to middle childhood* (Nelson, 1996 p. 3). The relationship between language and cognition is clearly identified. Barnard supports this when he says in his opening statement, *the connection between children's language and their cognitive and cultural development is so close as to be indivisible* (Barnard, 2003, p. 1).

A significant consideration then is the experience of children in language environments that do not use the language used in their homes. In terms of children speaking a language other than English, the confidence and comfort that children may feel in speaking their own language is denied them if this is not their reality. If the child is not comfortable and confident, this then brings into question whether the use of language as a catalyst for cognitive change is as natural as it would have been in a first language environment. The comfort level, or lack of comfort, for *Jack* (a boy who had recently emigrated from Korea) in the primary classroom in Barnard's *Aotearoa* New Zealand study indicates that *Jack* was stressed. This stress and discomfort was clearly revealed in his private speech (Barnard, 2003).

For younger children in kindergarten, their wellbeing and sense of belonging must surely impact on their ability to think and learn. Maslow's hierarchy of needs can be used to support this statement (Maslow, 1970). Therefore *Te Whāriki's* goals, to meet children's physical, emotional, cultural, linguistic, social, cognitive and spiritual needs (in the broad sense of the word), are fundamental to supporting the child and his or her learning. If ECE centres are able to do this then the support for language and cognition becomes embedded in practice.

The link between language and cognition is critical both for a first and second language speaker. Nelson suggested that *the primary cognitive task of the human child is to make sense of his or her situated place in the world in order to take a skilful part in its activities* (Nelson, 1996, p. 5). This poses challenges for ECE centres. In terms of EAL then does competence in mother tongue, and lack of competence in the dominant language of the early childhood centre, affect the child's cognitive functioning? What are the tasks for EAL children? Is their priority to learn the language of the centre or do they simultaneously engage in active learning within the socio-cultural context? It seems that there are

challenges which the child would have to meet which would be more complex because of the restrictions placed by a lack of fluency in a language in the socio-cultural context of the centre. Essentially, what is the role of their language in connection with their learning, in their socialisation and in making sense of their worlds?

Nelson's (1996) research provides a further basis for critique. In her discussion, Nelson described the use of language by children. She stated that language has multiple functions. It orders thinking, organises thoughts and experiences, has a cultural and affective function, is used to effect understanding and to develop a child's sense of self (Nelson, 1996). Given these functions, it seems that the task for children from other language backgrounds will be formidable. Yet, underlying this is the intense intrinsic motivation that children have to play. Through this need to play, this desire to actively engage with materials and to explore their world, they exceed the boundaries created by language obstacles.

In the early childhood context, the opportunities for learning are extensively open-ended. These open ended tasks are those in which children set their own goals and define their own behaviour towards meeting that goal. Krafft & Berk, (1998, p. 640) define the closed-ended activities used in research on private speech of young children as likely to be puzzle-solving, picture matching and story sequencing activities. Further that these activities are likely to be those *that most resemble the structured academic work of older children* (ibid, p. 640).

In the primary school in which *Jack* (the subject of Barnard's research) is situated, the learning tasks are specific and defined by language (Barnard, 2003). *Jack* speaks only Korean and is unable to function in his own world to do the learning. He has to work within the language confines and barriers of tasks confined to that language (English). His response is to engage in self-expression through private speech in his own language (Barnard, 2003).

Private speech in *Jack's* case illustrates the connection between language, cognition and culture referred to by Barnard (2003). It also illustrates the connection between the language used and emotion. Recognising this can be a useful indicator to teachers working with EAL children in schools. The response from a peer to *Jack's* distress illustrates that tone of language, even if the language is not known to the listener, can be a clue to emotions. In this case, support for *Jack*, as indicated by Barnard, should have been introduced to address his linguistic, social, cognitive and cultural needs (Barnard, 2003).

It is recognised that teachers are faced with considerable challenges in meeting the holistic needs of pupils in their classes. The challenges of listening to private speech or to linguistic clues through tone are significant. However, in an idealistic sense, private speech can be used by teachers to gauge wellbeing as a starting point in their role as facilitators of learning.

Nelson referred to the concepts of private speech as explored by Vygotsky (1978). Vygotsky's theories, based on his review of Piaget's research, are fundamental as they both inform and pose questions about the role of the teacher in supporting the child's learning and problem solving (Nelson, 1996).

It has been established that children's language contributes to their learning. This learning is not only on a cognitive level it is also social (communicating), emotional (expression of needs and satisfying those needs), cultural (a vehicle for the understanding and experience of culture) and spiritual (in the sense that language can connect people through expression of our 'humanness'). There are also layers to language and the layer that is often overlooked in the understanding of children's language is that of private speech. While the scope of *Te Whāriki* is broad and therefore it is not expected to address specific aspects

of the child's learning, it can be noted that there is no reference to private speech in the Ministry of Education (1996) ECE national curriculum.

3.7 Egocentric or Private speech?

Piaget asked the question, *what are the needs which a child tends to satisfy as he talks?* (Piaget, 1959, p. 1). He used this question as a basis for his research on the thought and language of the child (ibid). This work on understanding children's language and thinking led him to label the child's way of talking to him or herself as *egocentric speech* (Piaget, 1959, p. 9). He distinguished between two groups of speech labelling them as **either** egocentric or socialised. In egocentric speech the motivation for the speech is not to communicate with another but rather, *he does not bother to know to whom he is speaking nor whether he is being listened to* (Piaget, 1959, p. 9). Piaget further divided egocentric speech into *repetition of words and syllables (echolalia) (remnant of baby prattle); monologues (outward verbal expression of thought); and dual or collective monologues (although there are others present they are not considered in the speech)* (Piaget, 1959, pp. 9, 10).

Social speech on the other hand focusses on speech distinguished by the following groups: *adapted information, criticism, commands, requests and threats, questions and answers* (Piaget, 1959, pp. 9, 10). The emphasis in social speech is on interaction, on speaking to engage, to elicit a response.

Age and context are considerations in Piaget's analysis of egocentric speech. He found that *at the beginning of the fourth year the child's speech shows a greater coefficient of egocentrism i.e. it less socialized in character in the presence of an adult than in the presence of children his own age (71.2% against 56.2%)* (Piaget, 1959, p. 241). This would suggest that egocentric speech has a social

context. However, Piaget explained this as an awareness of social context which did not go beyond that (1959).

While Piaget differentiated between self-talk and social speech, he highlighted the complexity of the child's use of language. There is clearly a sense that the child uses language differently according to different demands and according to his developmental stage. Piaget's version of private speech as *a kind of systematic and unconscious illusion...of perspective* is fundamental to his theory (Piaget, 1959, p. 268). In Elkind's interpretation of this understanding he sees this ego-centrism as *the child's inability to take another's point of view* (Elkind, 1980, glossary). Piaget's view of why children talk to themselves is situated in a psychological context which views the child's egocentric speech as an extension of his cognitive development. Piaget further viewed the child's egocentric speech, through soliloquies or monologues, to be the forerunner to the internalisation of language in the adolescent or adult. These soliloquies are different in that they *serve as an adjunct to immediate action* (Piaget in Elkind, 1980, p. 21). Thus they support the child's actions in the short term and are the outer expression of what becomes inner speech.

It seems that Piaget's view of private speech is that it is more a period of development to get through, a transition period before meaningful communication. The lack of social intention is a theme throughout Piaget's discussion on egocentric speech. Although, as mentioned earlier, he acknowledges that the child is aware (either consciously or subconsciously) of the people around him, the child is self absorbed and does not respond to this social context. When speaking of the research on egocentric speech, he says, *On the one hand, this is undoubtedly a case of social relationship. The child loves to know that he is near his mother* (Piaget, 1959, p. 243). Thus although Piaget regarded egocentric speech as divorced from social speech, he acknowledged

that the child is influenced, (perhaps in a largely subconscious sense), by the social contexts.

Piaget's consistent theme and the assumption that *there is no real social life between children of less than 7 or 8 years* (Piaget, 1959, p. 40) are challenged by Vygotsky. In contrast to this, Vygotsky placed egocentric speech fully in a social context with a social function. He said, *the primary function of speech, in both children and adults, is communication, social contact. The earliest speech of the child is therefore essentially social* (Vygotsky, 1986, p. 34). Vygotsky saw the emergence of vocal speech as occurring in a pattern which proceeds as follows:

Social → egocentric → inner speech
(Vygotsky, 1986, p. 35)

Vygotsky preferred the term *communicative speech* to social speech as he regarded both egocentric and social speech to be social. Clearly, through his writing Vygotsky has indicated that he differs from Piaget in this regard. He regarded communication to be the purpose of social speech whereas private or egocentric speech is social but does not strive to communicate (Vygotsky, 1986, p. 35).

Vygotsky's intensive and extensive research following on the research of Piaget served to change the focus on egocentric speech in a number of ways. In particular, it shifted the psychological paradigm from a pre-social context to a social context (Vygotsky, 1986).

In further developing the research, Vygotsky and his co-researchers used Piaget's classical research but added challenges. Significantly, they found that under these research circumstances, when a child was faced with a lack of

materials to do a task or activity, *the egocentric speech almost doubled* (Vygotsky, 1986, p. 30). The relative amount of the egocentric speech, as measured by Piaget's methods, increases in relation to the difficulty of the child's task (Vygotsky, 1978, p. 27).

Vygotsky's hypotheses then were situated in two essential areas: social and cognitive. Underlying his research on egocentric speech was the notion that the child's speech played a socializing as well as a cognitive function. He said:

Prior to mastering his [sic] own behavior, the child begins to master his surroundings with the help of speech. This produces new relations in addition to the new organization of behavior itself. The creation of these uniquely human forms of behavior later produce the intellect and become the basis of productive work: the specifically human form of the use of tools (Vygotsky, 1978, p. 25).

Thus the child, with the aid of speech, begins to manage his environment. This then leads to the mastering or regulating of his own behaviour. Further, when striving to achieve a goal, children not only act but also speak (Vygotsky, 1978). Vygotsky reported observations of children's behaviour in an experimental situation which showed that the child's speech increases and is more persistent as the desired objective becomes more challenging.

Vygotsky, referring to Levina's experiments (Vygotsky, 1978), noted that attempts to block the child's speech either were not successful or the child was unable to continue with the task, resulting in the child 'freezing up' (Vygotsky, 1978, p. 25). One experiment conducted by Levina posed the task to children (aged 4-5 years) of getting candy out of a cupboard which would, without some sort of aids, be out of their reach. They were given tools in the form of a stick and stools to aid them in achieving their goal. Vygotsky, in reviewing this experiment identified stages in the problem-solving process, stages in which the child's egocentric speech first took the form of a description and analysis of the situation but then showed an evolving plan in which the talk was about how the problem would be solved. Finally he noted that the speech was included in the

solution (Vygotsky, 1978). This analysis shows how speech is used consistently in the child's process of trying to solve a problem.

Vygotsky proposed that taking active steps to solve the problem (the action) and talking to guide the action (speech) are *one and the same complex psychological function* (Vygotsky, 1978, p. 25). In terms of solving a problem, then, children use speech to guide their behaviour to help them find a solution. When children find that they are not able to solve a problem by themselves, they immediately turn to an adult and talk about the aspect of the task that they cannot do themselves. Later on in their development this socialized speech is turned inward so that instead of appealing to an adult for help, the child internalizes the questions, seeking answers to solving the problem for himself (Vygotsky, 1978).

3.8 Private speech, Scaffolding and the Zone of Proximal Development (ZPD)

Research into the role of private speech as well as research into scaffolding has identified that private speech contributes to thought and that scaffolding (the support given to children by a more experienced peer or adult to complete a task, or solve a problem and to extend their learning) is effective in extending the learning experience of the child (Winsler, Diaz & Montero, 1997). This has significance for the child's learning in early childhood centres.

The tutorial model of scaffolding and the concept of the zone of proximal development are relatively widely studied in early childhood education studies. Scaffolding refers to the collaboration between teacher and child, or child and more able peer, to provide support for that particular task (Wilson-Quayle & Winsler, 2000). Vygotsky (1986, p.187) explains the zone of proximal development (ZPD) *as the discrepancy between a child's actual mental age and the level he reaches in solving problems with assistance*. This may further be

explained as the point just beyond the child's current capabilities for that particular task or learning experience. Berk explains this as the *range of tasks that children cannot yet handle alone but can do with the help of more skilled partners* (Berk, 2001, p. 160). Scaffolding is widely referred to in ECE pedagogy. Conversely, the use of private speech (egocentric speech or self-talk rather than socialised speech) which can provide clues as to the level of scaffolding required, provide insight into the child's thinking, is less referred to in early childhood education studies. Its significance seems to be under-investigated and un-acknowledged in practice (Bailey & Brookes, 2003).

The question arises, does private speech have to be acknowledged in order for it to be valued and allowed to develop? At the other extreme, it could be questioned whether teachers, so keen to scaffold, allow children the time to initiate the required scaffold. Is the tendency for teachers to interrupt the child's thinking or actions too soon? Identifying a teachable or 'scaffoldable' opportunity demands skilled and intuitive assessment and action of the behaviour in conjunction with meaningful knowledge of the child and his or her cultural context.

Bronson (2000) discussed a related perspective. Children, through private speech are able to self-scaffold. They are able to talk themselves through strategies to meet their goal. Bronson quotes Bickhard (1990) who suggests that *children use verbal supports for ongoing activities (self-scaffolding) in both task and social situations and proposes that self-scaffolding is central and essential for cognitive control* (Bickhard, 1990, cited in Bronson, 2000, p. 72). Thus the tool of private speech may be used to self-scaffold in managing tasks as indicated in Vygotsky's research and articulated by Bickhard (in Bronson, 2000).

The role of private speech for task competence was also discussed by Winsler, Diaz & Montero (1997). They referred to Vygotsky's developmental model 'for the microgenetic emergence of task competence' as follows:

At first children are supported in doing tasks with the careful direction and support of a caregiver. They then learn strategies so that they initiate responses from caregivers, such as using private speech to signal that they need support. In the final stages in this development towards task competence, they use the strategies that they have acquired through their socialised learning to self-scaffold through private speech. Finally, they are able to complete their problem solving and their task performance, without a cultural tool such as private speech. (Berk & Winsler, 1995, cited in Winsler, Diaz & Montero 1997, p. 60).

This statement sets private speech firmly in a social context. Children learn from the 'scaffolds', those strategies that they have observed, or that they have been supported through, in their relationships and interactions with others. From these experiences they verbalise these strategies through private speech and so create their own scaffolds.

Understanding private speech as a personal scaffold is an aspect which could augment theory and practice in ECE. It provides a richer view of private speech than as egocentric, acknowledging that the learning that takes place when a child is supported by an adult or peer can serve as a scaffold outside of those moments as the child utilises these strategies through private speech.

Acknowledging the role of private speech, and recognising that it can form a valuable function for the teacher in identifying the necessary intervention or support required by the child, Winsler, Diaz & Montero assert the following:

Observations of private speech can be used by the teacher to identify significant features of the child's learning and also contribute to the teacher's understanding of the environment in relation to the child's learning. These observations of private speech can reveal whether scaffolding has effected change in thought, whether the resources, the classroom tasks are challenging enough and whether the environment is providing opportunities for the child to self-regulate their actions. (Winsler, Diaz & Montero, 1997, p. 75).

These are significant claims. If teachers can use private speech as an indicator of the impact that scaffolding has on the child's learning, and as an indicator of the effects of the environment on their learning, then private speech can be used as a valuable tool not only for the child and his learning but also for the teacher's understanding of the child and the learning environment.

The research findings of Winsler et al. indicated that

private speech is intimately and dynamically related to preschool children's task performance and that speech may constitute an effective tool for the development of task performance (Winsler, Diaz & Montero, 1997, p. 75).

Their research indicated the value of private speech in terms of the child's cognitive experience of the world. It highlights the need for teachers and caregivers to be alert to the level of private speech and based on their understanding of what the child is saying to sensitively scaffold the child's learning. Private speech can be used both by the child to scaffold her learning and actions, and it can also be used by the teachers to serve as an indicator of the child's thinking and experience.

The theories discussed are important in terms of language, cognitive and emotional development (within their overall holistic development, encompassing spiritual, linguistic, physical, intellectual, cultural, emotional and social aspects of the child) for young children. With regard to language development in a foreign language environment, this brings to the forefront the question of whether, and to what extent, children whose language is not the language of the early childhood centre, use private speech in their planning and problem solving. As mentioned previously, Vygotsky found a link between the child's egocentric speech and social speech. Firstly, when children find that they are unable to solve a problem by themselves they turn to an adult for assistance and describe

the method they were attempting (Vygotsky, 1978, p. 27). In the case of EAL children who may not be able to express themselves in the language of the centre, this would not be able to occur unless the teacher and child have developed a system of nonverbal communication that substitutes at a manageable level for language.

3.9 Context and function of private speech

While there is considerable research on private speech with a significant leaning in the findings to the importance of private speech in guiding the child's behaviour towards task competence, there is a need for wider research, particularly in natural surroundings. Although Piaget's original research which led to his theories on egocentric speech were conducted as 'naturalistic' research (Ginsburg & Opper, 1969, p. 87) most research has been conducted in experimental situations such as in a laboratory situation. In some the children have been specifically told that they may use private speech (Frauenglass & Diaz, 1985). In this discussion Frauenglass & Diaz did not state what words they used to describe this to children but one would assume that the researchers suggested to the child that talking aloud was acceptable.

While the issue of whether children in these environments use private speech forms the basis of this research, the context of the environment, particularly in the light of Vygotsky's research, is also relevant. Another consideration is that the degree of wellbeing and belonging which the children experience within the early childhood environment may influence the amount of private speech that they use. Further, the type of programme and curriculum (for example, free choice of play, open-ended activities and opportunities for make-believe play) is likely to play a role in either fostering or limiting opportunities for private speech.

Research by Krafft & Berk (1998) investigated the influence of the environment on the amount of private speech used by pre-schoolers. They examined the private speech in two philosophically different early childhood environments and found that these different environments had an influence on the amount of private speech that the children used. The 'free play' environment produced more private speech than the Montessori centre. Based on their research findings it is expected that children in the predominantly open-ended, free play environment of the kindergarten will, from this perspective, be in contexts that are conducive to the expression of private speech.

Thus the contexts in which children are placed have an impact on the utterances of private speech. Within these contexts are other conditions which contribute to all aspects of the child, not only to their use of private speech. These contexts of philosophical and therefore programme approaches also include the attitudes of the teachers, the resources available, the cultural compatibility and the messages (both overt and covert) which these children are given about the acceptance of their culture and language. These aspects may contribute to the child's sense of comfort within the environment. The attitudes of the community of peers and other adults, are also contributing factors to the environment. These issues are fundamental to the fostering of optimum conditions for all children in early childhood centres in terms of their holistic wellbeing. For children who are vulnerable in terms of their newness and strangeness to the language environment, these attitudes and other factors such as resources will be considered in the research discussion in order to locate the research in its natural and lived context of experiences, so that their use of private speech is located within these contexts.

Piaget and Vygotsky recognised the phenomenon of egocentric and private speech respectively. Berk particularly, with a number of researchers, has been

instrumental in investigating this phenomenon and its implications for young children and their learning (Berk & Spuhl, 1995; Krafft & Berk, 1998). What has not been researched as extensively is the private speech of children in 'other' language environments.

Saville-Troike (1988) researched the extent of private speech of EAL children in the 'silent period' and found that there were individual differences based on different types of learners (discussed later in this chapter). Diaz, Padilla & Weathersby (1991) investigated the effects of bilingualism on pre-schooler's private speech. They found that children in bilingual situations use as much private speech as children in mono-lingual situations. Their research is located in a bilingual Spanish and English environment whereas the research discussed in this thesis is based in an environment which in principle fosters bilingualism but does not, and can not, have an equal bilingual practice. There is a significant difference in the complexity of a bilingual context as opposed to a context where there are multiple languages posing significant challenges for educators who are working towards *balancing bilingualism*.

The research discussed in this thesis investigates the private speech of children in other language environments where although bilingualism may be favoured and encouraged, the teachers in these centres where there are multiple languages do not have the language resources and skills to be able to conduct bilingual programmes accommodating each language. The language context is essentially English with some *te reo Māori*, perhaps greetings and some basic phrases in the other languages of the children enrolled at the centre. Thus the experiences and environments in Diaz, Padilla & Weathersby's (1991) research and this study are essentially different.

3.10 Early childhood environments and contexts for play

The types of environments and the additional factors which are evident and may impact on the experiences of young children include types of play, goal of activity, adult presence and peer involvement. Factors such as whether the child is playing on his own or alongside a peer or involved in collaborative play; whether the activity is 'closed' or whether it is open-ended and whether an adult is involved in his play are significant variables which contribute to the progression of play. Krafft & Berk's (1998) and Kirby's (1997) research on private speech conducted in naturalistic ECE settings both fundamentally have relevance for this research. Included in their research were aspects of children's play which were first identified by Parten (1932 cited in Kirby, 1997). It was recognised that within their play contexts children may play alone (solitary), alongside (parallel) or with a child or children (either in associative or co-operative play) (ibid). Berk (2001) further described these within the three stages of social development in young children identified by Parten (1932). These stages describe the initially non-social (as in unoccupied, onlooker behaviour and solitary play) stage, moving to the next stage of parallel play in which *a child plays near another child or children with similar materials but does not try to influence their behavior* and the higher level of social play which includes associative play where children may be involved in their own activity but exchange materials and interact with each other at points. The highest form of this social play is in cooperative play when children work together towards a common goal (Berk, 2001, pp. 253, 254).

These dimensions in the context of children's play, and particularly their private speech, add to the understanding of the child's experience in early childhood settings and will be commented on in the analysis of the research findings on private speech.

Reference to the adult's presence during the child's private speech utterance will be made in the analysis. Essentially it will be noted whether the adult was *directly involved, a watcher-helper, or uninvolved* (Kirby, 1997, p.6).

Kirby (1997, pp.7,8.) also used Berk & Garvin's (1984) categories (which were initially applied in this research) for decoding private speech namely affect expression, word play and repetition, fantasy play, describing and self-guidance, inaudible uttering and other. These categories formed the basis for this research study and will be discussed fully later in this chapter. For this research, private speech constitutes one aspect of the child's way of meeting the demands of a learning environment in which the dominant language is not that of the child. Observations of the child's private speech offers teachers an opportunity to better understand the experiences and the strategies used by the child to make sense of their worlds (social and concrete) and their learning.

3.11 Issues in balancing bilingualism

In early childhood education ways of meeting the needs of children and families from diverse cultural and linguistic backgrounds pose questions of equity as well as beliefs and values. Whilst these issues are addressed through the Ministry of Education documents and pedagogically, a fundamental factor in how this diversity is being addressed has to be the attitudes, beliefs and practices of the teachers and early childhood communities. Based on my understanding of practice and my experience in ECE, it was my contention at the start of this research process that if there is a match between the centre's (which includes the teachers) attitudes, beliefs and practices (ethos), and that of the family, so that the family feel that they are respected and valued, then there would be a greater sense of belonging for the families and children. If there is incongruence

between the centre's ethos and that of the family, the families are less likely to feel a sense of belonging which will in turn have an effect on the children's experience. At that point the idea of cultural compatibility was not considered as a separate issue. Instead the focus was on the establishment of relationships between teachers and families from culturally similar as well as diverse backgrounds. It was expected that the relationships would be based on factors like teachers having positive attitudes, respect for the children, parents and *whānau* and that these would be the significant factors in creating empathy and a rapport between the 'centres' and families.

Ideally, for bilingualism to be balanced and fostered equally within the early childhood centre and the home, the centre would need to have teachers fluent in all the children's languages. In reality this is unlikely in 'mainstream' early childhood centres where there is wide diversity of language and culture and was not the case in the two case studies.

In this research a number of issues are key to understanding the experiences of children with regards the use of private speech. These factors include the centre's attitude to bilingualism. The centres were chosen for a number of reasons including having a commitment to balanced bilingualism. This term, balanced bilingualism, essentially refers to the situation whereby the child's first language is supported whilst he or she is acquiring another language such as English (Bruce & Meggitt, 1999, pp. 2, 3). For parents and teachers who support this practice it becomes a balancing act which will not be equal at all times. In an English language environment in which teachers are often monolingual, the balance is focussed more on an attitude to language rather than on an equitable distribution of spoken language within the centre. The attitude of teachers and parents is critical in promoting balanced (or what has been proposed in this thesis, *balancing*) bilingualism. This attitude, which favours the child acquiring English whilst maintaining and developing the child's own

language, will contribute to a relationship between the teacher, parent and child which acknowledges the values and place of these languages in the life of the child both in the short and long-term sense.

Within this environment then, the child's use of private speech to regulate his behaviour and respond to tasks, as well as in emotional responses, play with words and sounds and imaginative play is an interesting indicator of his use of language to articulate and guide his experience.

3.12 Overview of private speech

Returning to the essence of this thesis, an important distinction is added to this argument through Vygotsky's research (1962, cited in Thomas, 2000), where he identified that egocentric or private speech is an important tool of thought for increasing the effectiveness of thinking. An example of the method he used to test this importance is in the arrangement of materials needed by the child to complete an activity. In one example, a pencil would be missing from the drawing table, in another, the paper provided would be too large or too small and therefore unsatisfactory (Vygotsky, 1978). It was noticed that in these circumstances, egocentric speech doubled compared to when children did not face this problem. From this he maintained that:

egocentric speech is not just a release of tension or an expressive accompaniment to an activity but it is also a significant tool of thought in a proper sense, in seeking and planning the solution to a problem. (Vygotsky, 1962, p.16, cited in Thomas, 2000, p. 300).

To summarise, the theory that children use private speech to scaffold their planning for working through tasks or problems, is substantiated by the research of a number of researchers in the past ten years particularly (Diaz & Berk, 1992; Nelson, 1996; Winsler et al., 1997; Thomas, 2000; Winsler & Naglieri, 2003). Also, as noted earlier, the strong focus on research into private speech has been

in the area of its role in cognitive tasks. For example, in an adaptation of the categories of speech units from Frauenglass and Diaz (1985), in their research on private speech Diaz & Lowe (1987) adapted the categories of speech used by Frauenglass and Diaz (1985) so that they focussed on tasks and whether the private speech used is task relevant or not.

Social speech: all speech which is directed to the experimenter as well as all speech which involves a gaze (either during the speech or preceding or following the speech) towards the experimenter.

Private speech: all speech not coded as social and assigned to these categories:

Task-relevant

Task irrelevant

Whispers

(Diaz & Lowe, 1987, pp. 185, 186).

In terms of the research represented through this thesis, these aspects of private speech raised challenges for the design of the research. Clearly there is a difference between communicative speech (defined by Diaz & Lowe as social speech) and private speech. But, identifying the function of private speech is challenging and as Diaz himself identified years later, deciding whether speech is task relevant or irrelevant is subjective and not necessarily valid (Diaz & Berk, 1992).

The criteria used to identify private speech are critical and have been developing over time, from Piaget's work on egocentric speech to the present. These may be in the form of complex criteria such as those identified in the *Private speech coding manual* of Winsler, Fernyhough, McClaren & Way (2005) or the relatively uncomplicated starting point of *no eye contact while speaking* and *no apparent expectation of response* (Saville-Troike, 1988, p. 573).

An overview of the research indicates the shifts in focus and the generally strong support for Vygotsky's theories that is evident in research from the sixties

onwards. The wide range of research has provided a guide for determining reliable and valid categories that may be applied in diverse research projects on private speech. Research has also contributed to an understanding of the role of contexts conducive to the use of private speech and acknowledged the value of private speech from a number of perspectives.

3.13 Private speech and outline of research topics

Private speech is a well-documented, extensively researched area in early childhood education (Frauenglass & Diaz, 1985; Diaz & Lowe, 1987; Diaz, Padilla & Weathersby, 1991; Berk & Winsler, 1995; Winsler, Diaz & Montero, 1997; Kirby, 1997, 1998; Krafft & Berk, 1998, Montero & Huertas, 1999; Gillen, 2000). In spite of this it is not widely discussed among early childhood practitioners as a tool used by children to regulate their behaviour and to assist in task competence. Nor is there generally an awareness of the potential significance of this speech in alerting the teacher to the child's self-scaffolding or level of scaffolding required to work collaboratively with the child in moving to the zone of proximal development (ZPD). Based on the thesis of Deniz (2004) that teachers tend to ignore private speech, it is interesting to note whether teachers respond to private speech given that it is quieter than communicative speech. Winsler et al stated:

The fact that children were more likely to be successful after scaffolding if they used private speech suggests that the path to individual task competence requires not only adult sensitive and contingent regulation, but also children's active participation, effort and self-regulation (Winsler, Diaz & Montero, 1997 p. 75).

If teachers are unaware of the significance of the child's private speech to scaffolding and the relationship of this to their learning, then their responses to

the child's private speech may not show the sensitivity required to be fully supportive.

The importance of the relationship between the adult and child is a consistent theme in much of early childhood pedagogy and particularly described in Dunkin and Hanna (2001). Vygotsky's research into the impact of social relationships and the child's learning indicates the significance of the relationship between adult and child in extending the child's knowledge and understanding.

Children who have little English and attend an English speaking kindergarten add another dimension to the discussion. It seems plausible that if teachers are not considering the role of private speech for first language speakers, they are even less likely to consider the role of private speech for children in 'foreign' language environments.

Although research has been conducted in a bilingual environment, namely through the research of Diaz, Padilla & Weathersby (1991), there is less research into the experiences of young children in an English environment where their first language is not spoken by the teachers. The key research which is relevant for this research thesis seems to be the research of Saville-Troike (1988).

This current research opens up a new inquiry, in *Aotearoa* New Zealand, into the experiences of children from diverse language backgrounds. The research, primarily investigates their use of private speech within the context of their relationships and their environment. The expectation was that the research would indicate how private speech was used by the children, and what responses it elicited from adults. From these case-studies it was expected that a clearer picture of the role of private speech in their learning and experiences in early childhood would be identified.

A number of researchers, following on the research of Vygotsky, indicated the importance of private speech as a unifier of language and thought in guiding and directing behaviour (eg. Berk & Spuhl, 1995, p. 163). Much of the research has been conducted in laboratory situations. The goal of this research was to investigate the occurrence of private speech in as natural a setting as possible. As Krafft & Berk stated, *the cumulative literature has devoted far too little attention to the activity settings in which private speech occurs most often* (1998, p. 656). Their research specifically investigated the occurrence of private speech during open-ended activities in two different pre-school settings. Interestingly, they noted that the nature of open-ended tasks requires a higher level of self-regulation by the children in both defining the goals for the task and in the behaviour they will have to set for themselves to meet those goals (ibid, p. 641).

Their finding, that children used more private speech during open-ended activities as well as in fantasy play, was noted for this research. Further, in listing the diverse subgroups of children emitting high rates of private speech one of the groups referred to by Krafft & Berk (1998) is that of children acquiring a second language. (Unfortunately the authors do not elaborate on this). This has implications for the children in English language environments who will probably also be in the process of acquiring English (Krafft & Berk, 1998). Specifically, do EAL children use private speech in their English environments and do they use more private speech when participating in open-ended activities or when they are faced with tasks which are closed?

As discussed earlier, Krafft & Berk, in their comparative study of private speech in two pre-schools found that private speech was used more predominantly in open-ended tasks than in closed (1998). Their research into a Montessori preschool and a traditional preschool found that *opportunities for open-ended pursuits (especially make-believe) and reduced teacher direction fostered*

children's self-directed speech. Indeed, open-ended activities in which children experimented freely with ideas and materials appeared (on the basis of the observers' informal observations) to be interrupted often by the Montessori teachers (Krafft & Berk, 1998 p. 653). The environments of the kindergartens used in this research are closely aligned with the *traditional* preschool described in Krafft & Berk's (1998) study. The philosophy is 'free play' based rather than teacher-directed and there is an emphasis on open-ended activities in the curriculum and programme.

This research is based on informal observations of private speech which are analysed using Krafft and Berk's (1998) categories. These categories are not defined as hierarchical as assigning a relative value to speech is problematic. Language is complex and it was decided to use categories that defined the context or function rather than a hierarchy linked to notions of intellectual or developmental progression. Further, the six basic categories of private speech in Krafft & Berk (1998) resonate experientially as being part of children's speech with a provision for 'other', for instances that do not comfortably match any of the other five.

The six categories are as follows:

Affect expression: *This is an expression of emotion which is directed to no-one in particular e.g. expressing 'cool' when looking at a new toy.*

Word play and repetition: *This involves repetition of words and sounds for their own sake.*

Fantasy play speech: *Role-play verbalisations that take the self or an object such as a toy or puppet as social partner. (Pretend telephone calls will fit into this category.)*

Describing one's own activity and self-guidance: *This includes remarks by the child about his or her own activity directed to no one in particular. This category includes descriptions of what the child is doing as he or she is doing it and thinking out loud, or goal-directed plans for action. An example of this is: P. sits down on the carpet and says to himself, "I want to cut this out. I need some scissors."*

Inaudible muttering: Remarks uttered so quietly that the observer could not understand them.

Other: Private speech that could not be coded into any of the above categories. (Krafft & Berk, 1998, pp. 646, 647)

The categories of peer involvement, goal of activity and adult presence will be included in the analysis of the research findings. Peer involvement (whether play is solitary, parallel, associative or co-operative (Parten, 1932 cited in Kirby, 1997); goal of activity (open-ended tasks in which children set their own goals and define their own behaviour towards meeting that goal or closed in which tasks are defined by someone else or by the materials themselves) (Krafft & Berk, 1998); and adult presence, whether the adult is directly involved with the child or children; or watcher/helper in which the adult is observing but available to support the child or children; and uninvolved in which the adult is not observing nor available to support or participate in the child's play, based on the research of Kirby (1997), inform the research questions.

Further, research by Diaz et al into private speech in a bilingual environment has relevance.

The private speech of bilingual pre-schoolers is similar in content and function to the private speech of monolingual children. A higher degree of bilingualism shows advantages in the effective use of self-regulatory language (Diaz, Padilla & Weathersby 1991, p. 390).

This research is relevant in that it involves children with more than one language. There is limited research on the private speech of young children in foreign language environments. Significant in initiating this inquiry is the research conducted by Vygotsky that showed that children's use of private speech diminished considerably when in situations where their own spoken language was unlikely to be understood (Vygotsky, 1978; Saville-Troike, 1988).

The significance of the research in this thesis is predominantly in highlighting the experiences of EAL children and the tools that they use to develop and learn in a language environment that does not represent or incorporate their own language. This has particular reference to private speech as a tool in facilitating task competence and self-regulation. It is expected that an awareness of this phenomenon can help teachers to be more sensitive to the experiences and needs of these children, particularly in relation to their use of private speech for self-regulation (or self-guidance) and task competence both in open-ended and closed activities. Based on this premise, then, it has significance within the different contexts of early childhood education.

3.14 Private speech and special needs in ECE

Aside from research relevant to this thesis there are studies which indicate that private speech can additionally be used in understanding children with special needs. While the children in this research study did not have special needs this research is noted for its potential to contribute to wider pedagogical knowledge. Research on the private speech of *young children at risk* (Diaz & Lowe, 1987) and on *normal and autistic children* (Kerr, 1993) adds to the potential that there is in understanding the value of private speech. There is some evidence in research that *children with a wide range of behaviour and learning difficulties such as aggressiveness, impulsivity, hyperactivity, and learning disabilities show deficits in different aspects of private speech and verbal mediation* (Diaz & Lowe, 1987, p. 182). These findings are relevant: Diaz & Lowe referred to an earlier study by Copeland (1979) in which hyperactive boys used immature and task-irrelevant private speech (Diaz & Lowe, 1987, p. 182). There is extensive scope for understanding the role of private speech in children with special needs such as giftedness, autism, behaviour and learning difficulties and also for understanding other needs of children for example those who are socially

reticent. Their use of private speech may be indicators of their experiences and learning so that educators can use this understanding to support them.

3.15 Historical overview of the research on private speech

Extensive research on this topic has been undertaken from Piaget's seminal studies in Switzerland on the language and thought of the young child, to the influential research carried out by Vygotsky in Russia. The main research activity areas include the United States and the United Kingdom with other areas contributing to this study.

3.15.1. 1920s to 1980s: Piaget and Vygotsky and beyond.

Susan Isaacs' research on the intellectual growth in young children provides insight into their thinking and provides detailed accounts of their language within the social, cultural, historical framework of the time between 1924 and 1927 in 'nursery school' in the USA. Isaacs challenged Piaget's research on egocentric speech through her own extensive study on children's speech. She found that contrary to Piaget's assertion that egocentric speech, (as seen in monologues, particularly the collective monologue), was not directed at anyone, that *...the talk of our own children almost always seemed to be definitely directive* (Isaacs, 1966, p. 86). In Isaacs' research she challenged Piaget's claim that children at a certain stage/age use egocentric speech extensively.

Her main objection however was to Piaget's claim that egocentric speech is a stage of development (Isaacs, 1966, p. 86). Isaacs claimed that the child's egocentric speech arose from *certain situations* or *certain moods*. Rather than developmental they were instead responses to specific situations (Isaacs, 1966,

p. 87). This again supports the idea that these utterances were based in a social context and therefore not autistic. Piaget's discussion identified autistic thought as *undirected; subconscious thought* (Piaget, 1959, pp. 43, 44).

The research of Kohlberg et al. (1968) focussed on *similarities and differences in the views of private or egocentric speech held by Piaget, Vygotsky, G.H. Mead and Flavell* (Kohlberg et al. 1968, p. 691). The themes that Kohlberg et al. (1968) explored included the effects that age, intelligence and task difficulty had upon private speech in a variety of natural and experimental settings (Kohlberg et al, 1968, p. 691). In discussing their research findings on the cognitive development of the young child, they found that the incidence of private speech was substantial. However, in their research the incidence was only half as high as that in Piaget's (Kohlberg et al., 1968, p. 731). Consistent with Piaget and Vygotsky they found that private speech lessened after the ages of 6-7. They supported a number of hypotheses which included *that private speech develops in a curvilinear fashion; that intelligence was a significant determinant of incidence of private speech; that private speech increases with the difficulty of a task; and that there is a genuine communicative intent behind both private and social speech* (Kohlberg et al, 1968, pp. 732-735). These hypotheses have prompted further research into these areas with some differing results. For example, Kirby (1997, 1998) and Berk (1994) found different results in relation to the development of private speech in a curvilinear fashion and also to private speech and task difficulty (discussed later in this chapter).

Rubin reported on research that considered children from kindergarten through the ages of two, four and six in relation to their communicative, cognitive, role-taking and spatial egocentrism (Rubin, 1973). Rubin referred to the developmental hierarchy identified by Kohlberg et al. (1968). The categories of private speech forms in this hierarchy include:

Level I: Pre-social self-stimulating language

Word play and repetition - repeating words or phrases for their own sake

Level II. Outward-directed private speech

Remarks to non-human objects

Describing own activity - remarks about the self's activity which communicate no information to the listener not apparent from watching the speaker

Level III. Inward-directed or self-guiding private speech

Questions answered by the self

Self-guiding comments - speech which precedes and controls activity

Level IV. External manifestations of inner speech

Inaudible muttering - statements muttered in such a low voice that they are indecipherable

Level V. Silent inner speech or thought

Inner speech - the child is silent throughout the experimental period

(Rubin, 1973, p. 104; Kohlberg et al., 1968, pp. 707, 708).

Rubin used these categories to measure cognitive egocentrism and found that overt manifestations of cognitive speech (private speech) declined with age (Rubin, 1973, p. 108).

In Furrow's perspective on age and the occurrence of private speech, he compared the social and private speech of children at two years, which he regarded as the beginning of the 'increase' period (Furrow, 1984). Furrow's work is a comparative study of the social and private speech use of language occurring in two year olds. He also raised the issue that researchers tend to focus on *either* private speech *or* social speech rather than viewing the two as contributing to the bigger picture of language (Furrow, 1984, p. 355). The categories used by Furrow to define social context through videotaping these children in 'free play' situations included *eye contact, other social and private speech* (Furrow, 1984, p. 357). The speech was further categorised into twelve

categories of function including *instrumental, regulatory, self-regulatory, attentional, interactional, expressive, referential, describing own activity, question, imaginary, informative, and incomprehensible* (Furrow, 1984, p. 358). These are comprehensive categories, described by Furrow as mutually-exclusive (p. 358).

Interestingly, Furrow's study found that for these two year olds, *self-regulatory, expressive and describing own activity functions are more predominant in private speech* (Furrow, 1984, p. 361). In considering Kohlberg et al.'s (1968) hierarchy discussed previously, it is interesting to note that these young children displayed a type of private speech that is relatively high on the hierarchy, suggesting a more 'advanced' stage of private speech.

Research on private speech in the 1980s included work by Berk & Garvin (1984), Frauenglass & Diaz (1985) and Diaz & Lowe (1987). Their research supported Vygotsky's findings that private speech functions to regulate children's actions and to assist in problem solving. These researchers have each contributed to an understanding of the occurrence and function of private speech in young children, refuting the Piagetian idea that egocentric speech does not play a significant role in the child's cognitive and social functioning.

Diaz & Lowe (1987) considered an aspect of private speech which is not widely researched. They referred to Kohlberg et al.'s (1968) suggestion that *private speech utterances could be categorised in a hierarchical fashion* (p. 183). From this perspective *word-play, task-irrelevant statements and emotional expressions are at the lowest immature level and guiding, planning and orienting task-relevant utterances are at the highest levels* (Diaz & Lowe, 1987, pp. 183, 184). They further stated that *free play and nonverbal tasks are not the most appropriate contexts to elicit and examine the quality of children's private speech* (Diaz & Lowe, 1987, p. 184). The rich data and findings obtained from

later research conducted in 'free play' situations (with open-ended tasks) however, do not support this statement (Krafft & Berk, 1998).

Piaget's position that egocentric speech is related to autistic thought (*the original, earliest form of thought*) as cited in Vygotsky, 1986, p. 18), has been challenged extensively by Vygotsky and later researchers. Whereas Piaget focussed on egocentric speech as a developmental phenomenon, the underlying focus for research in the 1970s and 80s was on the self-regulatory function of private speech. This focus suggests that private speech is validated when it is seen as a scaffold or prop for children's learning.

Saville-Troike (1988) referred to Kohlberg et al.'s hierarchy in her research. She builds on a hierarchy model to define private speech as a hierarchy of functions on three levels from highest to lowest:

Self-guiding language (reflective questions and answers, and directions to self)

(at the highest level)

Commentary and descriptive language (descriptive of one's own activity with or following the behaviour)

Self-stimulating language use (singing or repeating words for the mere pleasure of doing so)

(at the lowest level of the hierarchy)

(Saville-Troike, 1988, p. 569)

This hierarchy of private speech clearly views self-regulatory speech as cognitively most advanced whereas the use of private speech for pleasure, for self-stimulation, is ranked lowest.

Particularly interesting is Saville-Troike's (1988) research on the use of *second language learning strategies during the 'silent period'* by children in the early stages of second language acquisition. It must be argued at this point that this is not necessarily a silent period but rather silence or speech on a continuum from

silent to increased use of expressive speech in the new language. Saville-Troike describes the 'silent' period *as not necessarily of categorical silence, but its onset is marked by a dramatic drop in language directed to speakers of the second language* (1988, p.577).

Saville-Troike's (1988) study also explored the characteristics of language learners (and learner styles generally) in the *inner-directed* and *other-directed* comparisons (Saville-Troike, 1988, p. 567). She explained that inner-directed learners are more reflective and approach language learning as an *intra-personal task* whereas outer-directed learners approach language learning as an *inter-personal task* and are *assertive in their attempts to communicate with speakers of the new language* (Saville-Troike, 1988, pp. 567, 568). The contextual area (second language acquisition) of Saville-Troike's (1988) research is particularly pertinent to the research in this thesis and will be discussed further in this chapter and in chapter seven.

The research base for private speech is situated in a fairly wide geographic context in the first part of the twentieth century. This was initiated by Piaget in Switzerland, addressed by Vygotsky in Russia and by Susan Isaacs in the USA. The prevalence of private speech within these diverse social, cultural and linguistic contexts gives credibility to the notion that private speech is a universal phenomenon, as illustrated within these societies.

3.15.2 1990s to the present.

The context in which private speech takes place has proved to be significant. Krafft & Berk (1998) investigated the role of environment in private speech use. Their study investigated the occurrence of private speech in two pre-schools, one a Montessori centre and the other a 'traditional' programme (Krafft & Berk,

1998, p. 637). They found that where opportunities to engage in non-teacher directed, open-ended activities, especially make-believe play were abundant (in the traditional preschool), children's private speech increased. This research contradicts the assertion by Diaz & Lowe (1987) that 'free play' (and therefore open-ended activities) and nonverbal tasks are not the ideal place to examine private speech.

Research in the nineties opened up wider research questions. During this period there was extensive research on private speech, particularly in the United States of America, but also in the United Kingdom and Canada. The research focussed on private speech from a number of perspectives and for example included research into the role of private speech in self-regulation (Harris, 1990, Diaz & Berk, 1992, Winsler, Diaz & Montero, 1997, Krafft & Berk, 1998, Sturn & Johnston, 1999); the changes that occur over time in private speech (Duncan & Pratt, 1997, Kirby, 1997; Kirby, 1998), private speech in early childhood classrooms (Winsler, Carlton & Barry 1999); the influence of maternal interaction on private speech (Berk & Spuhl, 1995); distinguishing one's voice from those of others (FERNYHOUGH & RUSSELL, 1997); and private speech in relation to special needs (Kerr, 1993).

In the current decade, private speech has retained a research profile including studies into the motivational function of private speech (Chiu & Alexander, 2000); as a cognitive tool (Ahmed, 2002); understanding private speech in relation to pretend telephone talk (Gillen, 2000); private speech by a Korean immigrant in the primary classroom (Barnard, 2003); and private speech in ECE generally (Bailey & Brookes, 2003). In spite of their varying foci, this research has generally reached a consensus that young children talk to themselves in a number of situations for a number of purposes.

3.15.2.1 Some discrepancies

Although there seems to be some general consensus on the principles of private speech, there are some contradictions including those identified by Berk (1994). In the results from research such as those in Frauenglass & Diaz's study *it was found that children who used more private speech did worse on the tasks before them* (Berk, 1994, p. 3). This discrepancy was explained as that the experimental tasks given to the children were not appropriate to elicit private speech. This explanation is based on the conclusion that the tasks were either too difficult and therefore the child had to have help (and could not self-regulate or guide their own problem-solving) or the tasks were too easy and therefore did not require private speech to scaffold the tasks. This discrepancy in the findings nevertheless illustrates that although there is general consensus, the findings can and do challenge assumptions. For example, research shows that context plays a critical role in the use of private speech and challenges the assumptions of general stages.

Discussed earlier, another discrepancy is in the findings of Kirby (1997). In her research in naturalistic preschool settings she found that private speech peaked earlier than postulated in Vygotsky's research. Her research results showed that private speech peaks at age two and decreases with age increase, refuting Vygotsky's curvilinear development of private speech which showed a peak at around five years (Kirby, 1997). This is an interesting finding. I had originally based this study on research which stated that private speech peaked at around four to five (Kohlberg et al., 1968; Frauenglass & Diaz, 1985; Diaz & Lowe, 1987; Diaz, Padilla & Weathersby, 1991) whereas in considering Kirby's (1997, 1998) findings it is possible that the private speech of the children in the case study was not at a peak but was rather decreasing with 'age'.

The specific age (such as two years or four), at which private speech emerges, peaks and declines has some variance in the research. Vygotsky reported a rise in incidence of private speech in the preschool years and a curvilinear development of private speech (Vygotsky, 1978). Kohlberg et al. (1968, p. 720), found that children show some increase in the use of private speech around the age of four; Azmitia, (1992, p. 104) said that *private speech...peaks between 4 and 5 years*; and (Harris 1990, p. 38) referred to Vygotsky's view of private speech development as *increasing until the age of 6 or 7*. These variances in understanding age related to private speech warrants further research, preferably longitudinal studies in naturalistic settings.

3.15.2.2 New directions

In 2000, Gillen moved slightly out of the conventional research area to expand on the idea that children's imaginative self-talk on the telephone (which is no longer functional), is egocentric speech. Whilst the seventies, eighties and the nineties saw a strong emphasis on the self-regulatory role of private speech, Gillen's research includes the role of *imaginative monologues* (Gillen, 2000, p. 180). Her study focussed on how children use egocentric speech to explore and make sense of their world. This was not the first research on children's pretend conversations. Veach (1980, cited in Warren & Tate, 1992) and Warren and Tate (1992), conducted research on children's natural telephone conversations. Gillen's research however shifted the focus to the imaginative monologues that occur in children's imaginative play. Interestingly, another perspective on imaginative or fantasy play is that it peaks at an early age (two years) rather than at the other end of the preschool period (Kirby, 1998, p. 7).

Bailey & Brookes (2003) illustrated a practical side of egocentric speech. Their discussion looked at private speech from the teacher's perspective, addressing

issues such as children who are unable to be quiet during a teacher directed time, or for an appropriate moment to express themselves. These writers urge teachers to view private speech from a different perspective, with understanding and knowledge of the child's private speech and with ideas of how this private speech can contribute to children's learning and actions. They identify distinct stages in the development of private speech:

Stage 1: vibrations and rhythms (conception - toddler)

Stage 2: Imitation and sound play: (newborn-toddler)

Stage 3: Naming and Functions (15months- 4 years)

Stage 4: Stream of consciousness (4-7years)

Stage 5: Internal private speech (7- 8 years)

(Bailey & Brookes, 2003, pp. 47, 48)

Bailey & Brookes' critique provides useful insight into the development of private speech and the associated thinking processes. As I have mentioned, the acknowledgement of private speech as a tool in the child's learning is under-acknowledged in practice and this article successfully places private speech in a teaching and learning context. The developmental stages however should be applied loosely as individual children may experience these stages differently. I suggest also that the contexts such as open-ended or closed and the situations or moods (including culture or atmosphere) in which the children find themselves (Isaacs, 1966) should be considered in an analysis of private speech. For this research study, the contexts and situations are considered in relation to the context of the utterance rather than as the child's general mood.

Over time research on private speech has evolved and expanded beyond the initial research on whether it is social or egocentric. Topics include the research already mentioned as well as research into private speech in children's literature,

into microgenetic changes in private speech over time and on the role of maternal interaction and private speech.

Research by Bivens and Hagstrom (1992) shows clearly how private speech is acknowledged in children's literature. In the research by Duncan and Pratt, the microgenetic changes in the quantity and quality of pre-schooler's private speech is indicated, showing a decline in private speech as children mastered tasks over time (Duncan & Pratt, 1997). Research into *maternal interaction, private speech and task performance in preschool children* (Berk & Spuhl, 1995, p.145) revealed an important factor. It established that scaffolding is more than verbal interaction, there are other aspects like *warmth, responsiveness, patience and an appropriate degree of structure and control that promote transfer of cognitive strategies from adult to child* (Berk & Spuhl, 1995, p. 165). This is a factor that should be considered by educators particularly, supporting the notion that relationships *ngā hononga* as identified in the principles of *Te Whāriki*, are vital (Ministry of Education, 1996, p. 14).

3.15.3 Private speech and language contexts

In spite of the wealth of research on private speech over the years, there are many questions yet to be answered. One such question is the focus of this thesis. What are the experiences of children from diverse language backgrounds in a particular context such as an English language early childhood centre? Do these children use private speech in their own language? Do they use any private speech? Saville-Troike's research (1988) has revealed significant findings into the private speech of children in second language environments, particularly in relation to the so-called 'silent' period. Her research has resonance with this research study. Significantly, Saville-Troike notes in her discussion of the research of Amodea and Cardenas (1983) that the bilingual

children (Spanish and English) in the study, when engaged in puzzle tasks, used only English or were silent (cited in Saville-Troike, 1988, p. 570). This choice by the bilingual children in the study to use English in their private speech appears to be related to a meta-linguistic awareness. These children chose to use the language of the setting (Saville-Troike, 1988, p. 510). The findings from her research show that children have a *meta-linguistic awareness* that leads to the awareness that others are speaking a different language to them and through this awareness may then enter the 'silent period' (Saville-Troike, 1988, p. 575). As mentioned previously, while this period is arguably not silent, this phenomenon is relevant as it indicates that children are sensitive to language contexts and to their own use of language. Alladina's point that children want to fit in is deeply significant here. He says that children do not want to be different from other children and one of the ways that they want to be the same is to speak the same language as the other children (Alladina, 1995).

This awareness of linguistic context appears to be present from an early age. It is identified in Vygotsky's research on private speech. Although he does not specifically refer to the term meta-linguistic awareness, Vygotsky's research illustrates that children in foreign language environments and environments where they knew that they would not be heard, were conscious enough of the language contexts to refrain from using private speech (Vygotsky, 1986). That is, children recognised that their language would not be understood and they consequently did not voice their private speech.

Vygotsky described the experiments which were designed to understand egocentrism and private speech.

In our first experiments we tried to destroy the illusion of being understood. After measuring the child's coefficient of egocentric speech in a situation similar to that of Piaget's experiments, we put him in a new situation: either with deaf-mute children or with children speaking a foreign language (Vygotsky, 1986, p. 233).

In these situations Vygotsky found that the children's private talk *dropped to zero in most cases* (Vygotsky, 1986, p. 233). This makes the whole issue of private speech more complex. If children are conscious of the impotence of their speech, with the consequence that they will remain silent and not use private speech to assist their problem solving, what are the implications for their learning? This aspect has not yet been identified clearly in research. However, when the task for the child is learning a language, (which did not form part of Vygotsky's study but which has proved to be relevant for this thesis), there is evidence that even *two and three year olds may spontaneously use private speech in the learning process* (Saville-Troike, 1988, p. 571). This adds another dimension to the potential for learning that is inherent in private speech.

An aspect of Vygotsky's experiments that needs to be considered is that it appears that the children were placed in these situations temporarily. In the growing familiarity of the early childhood centre, particularly one that fosters 'wellbeing' and 'belonging' and is 'empowering', the environment might be more favourable with the expected result that children are more likely to use their own language to work through problems. This has implications for the role of relationships, the environment and curriculum, on the child's use of language. Answering the question of whether children use private speech may also provide insight into how comfortable or how empowered they feel in the centre environment.

There are a number of factors to be considered here. If one considers that private speech is a strategy used by the child to assist task resolution and problem-solving, then the absence of this tool may well diminish the child's ability to work through problems effectively. Considered from this perspective, a lack of private speech suggests that children's task resolution ability and problem solving strategies will be stifled. A self-conscious approach to private speech would also indicate that the social aspect is significant. Then there is the

suggestion that private speech is dynamic: it can change in function from speaking thoughts out loud to self, to speaking thoughts out loud to a person in order to share an idea or to elicit a response (Isaacs, 1966). There can be a change from private speech to socialised speech within moments. There is scope for research to be conducted in this area so that the experiences of EAL children can be better understood and further strategies developed to support their learning and experience.

Clearly while there are commonalities and universal principles that define a path through which a child is likely to proceed, the individual circumstances that are framed within historical, social, linguistic, genetic and cultural variables will impact on their development. Yet underlying this is an image of the child, perpetuated through early childhood rhetoric and theory, engaging with the world with energy and determination. Piaget and Vygotsky emphasised that children are active participants in their learning (Vygotsky, 1978; Berk, 2001). Vygotsky further acknowledged that *humans are active, vigorous participants in their own existence and that at each stage of development children acquire the means by which they can competently affect their world and themselves* (John-Steiner & Souberman in Vygotsky, 1978, p. 123). Through their private speech, children demonstrate their thinking and how they engage with the world. Their private speech thus provides an indicator of their perceptions, a window into their world.

Research on the various functions of private speech highlights different aspects of the role and value of private speech. Research on the self-regulating function of private speech indicates the cognitive value of private speech. Research on their make-believe play provides insight into their imagination. Private speech can also provide insight into their language development, their understanding of social and cultural contexts and some insight into their personalities and learning dispositions.

3.15.4 Aotearoa New Zealand contexts

Research by Alton-Lee, Nuthall & Patrick (1993) has been discussed previously in this chapter. It addresses the classroom culture and the overt and covert language both of the teacher and the pupils. Also discussed earlier is a recent study conducted in Hamilton, New Zealand, which documents the private speech of *Jack*, an 11 year old Korean boy in a primary school classroom (Barnard, 2003). This study is particularly significant because it investigates the private speech of a child from a different language background based within a particular socio-cultural context. Barnard's research is valuable in terms of illustrating *Jack's* language use, his thoughts and the social implications of his language (Barnard, 2003). It serves to provide a picture of language (including private speech) and thought within the difficulties imposed by the language and the restrictions, as well as opportunities, of the classroom. The affective quality of the speech almost serves as a narrative of *Jack's* experience.

Both Alton-Lee et al. and Barnard's research are invaluable in terms of contributing to the picture of self-talk in the primary classroom context of New Zealand. As yet there appears to be no published research on private speech in an early childhood context in *Aotearoa* New Zealand.

3.16 Summary

This chapter has addressed issues related to language and empowerment in early childhood environments. The focus has included some discussion on language rights, teaching strategies, nonverbal communication, cognition in relation to language development and balancing bilingualism. The primary focus has been on the phenomenon of private speech in relation to the child's play, thinking, learning and experience within these micro and macro contexts.

The seminal research on egocentric speech in childhood (Piaget, 1959 and Vygotsky, 1978, 1986) has provided the basis for subsequent research into private speech. Their research exposed a phenomenon in the development of spontaneous speech used significantly in the speech of young children. Piaget's research spearheaded Vygotsky's studies which led to new understandings about the context and function of egocentric speech. Whereas Piaget had concluded that children's egocentric speech is either socialized or egocentric (Piaget, 1959, p. 9), Vygotsky found that egocentric speech is socialized (1986, p.35). Vygotsky describes the progression of speech as initially social, then it becomes egocentric or communicative and finally largely transitions (at school age), to inner speech (1986 pp. 35, 36). These differences in their findings are significant for understanding the role of what has become termed as private speech. Vygotsky (1978; 1986) shifted the focus from egocentrism in egocentric speech to a socialized paradigm. He identified this speech as a significant behavioural and learning tool saying that egocentric speech takes on a *directing, planning function* and raises *the child's acts to the level of purposeful behaviour* (Vygotsky, 1986, p. 31). While Piaget's (1959) question about the needs that a child satisfies when he talks is relevant, it is Vygotsky's research (1978) which found that children placed in foreign language contexts did not use private speech, that informs the origin of these research questions. His findings that egocentric speech contributes to children's actions and learning and is influenced by the social context have informed the research design and are both critical to the research questions in this study.

The consequent studies by numerous researchers such as Berk (1994) and Winsler, Diaz & Montero (1997) pose questions for early childhood educators in exploring the issues of language and the relationship between language and thinking. These issues are further compounded when working with children and families from diverse language backgrounds. Identifying strategies which can

support children in their learning journey is a critical one for early childhood teachers.

The role that scaffolding in relation to private speech plays in cognitive development poses interesting and important questions for teachers in diverse language environments. What guides do teachers use to identify when to scaffold when the children do not have the language competence in the spoken language to be able to instigate an informed response from the teacher? An investigation into nonverbal clues and the responses generated could present important information in this regard. Another issue would be to identify the role of private speech in young EAL children as a way in which they work through their problem solving in a linguistically unfamiliar setting. This has generated the need to investigate whether young children, who do not speak the dominant language of the centre, use private speech to facilitate their thinking. The hypothesis is that if they do, they will use their own language in their private speech. When they are not able to solve the problem through this strategy, do they then turn to an adult, one who is unlikely to understand the language, or do they withdraw? Added to the research ideas is a recognition of the potential for private speech to be used in the learning of language.

A commitment to language and empowerment, within a 'balancing bilingualism' paradigm, may be instrumental in fostering language rights, healthy relationships and positive learning environments in early childhood centres with a diversity of languages. The opportunities for studying the private speech of young children are diverse and exciting. The acknowledged value of children using private speech, particularly by Vygotsky and the prolific research of Berk and her colleagues and contemporaries, is resounding. Based on research which advocates bilingualism, and on research that recognises the value of private speech, the underlying objective of this thesis is to empower children to 'talk their talk', whether that is in expressing themselves in their own language,

acquiring a second or third language, or in using private speech. Further, for educators to acknowledge the advantages of 'balancing bilingualism' and through their relationships with children to acknowledge and support the role of private speech.

In the next chapters, based on qualitative methodology, using video recording and note taking in informal field observations, the following fundamental research questions into the private speech of children from two kindergartens will be examined:

Do children from 'other' language backgrounds in English language environments use private speech? If so, in what context and under what circumstances do they use private speech?

Augmenting these research question are the observations of the circumstances in which the private speech utterances happened. Particularly, these include peer involvement in play, the goal of the activity, the role of the adult and the categories of private speech. These aspects will further inform the insight into the use of private speech by the eight kindergarten children.

Chapter Four

Method

4.1 Introduction

This chapter focusses on the research question which has emerged in an attempt at understanding the experiences and the issues for young children from diverse language backgrounds who find themselves in English language environments. In addressing these experiences the research question was refined to focus on their private speech. The development and design of the method/s used in the research is based on answering this question:

Do children from diverse language backgrounds attending English-speaking kindergartens, use private speech?

4.2 Key issues

A number of issues are key to understanding the experiences of children in an early childhood context with regards the use of private speech. These factors include the centre's attitude to bilingualism. However, the centres were chosen partly but essentially because of a commitment to supporting the languages of the children in the centre, towards 'balanced bilingualism'.

Balanced bilingualism is a term which essentially refers to the process whereby the child's first language is supported whilst he or she is acquiring English (Bruce & Meggitt, 1999, pp. 2, 3). For parents and teachers who support this

practice it becomes a balancing act which will not be equal at all times. In an English language environment in which teachers are often monolingual, the balance is focussed more on an attitude to language rather than on an equitable distribution of spoken language within the centre. The attitude of teachers and parents is critical in promoting balanced (or what has been proposed in this thesis, *balancing*) bilingualism. This attitude, which favours the child acquiring English whilst maintaining and developing the child's own language, will contribute to a relationship between the teacher, parent and child which acknowledges the value and place of these languages in the life of the child both in the short and long-term sense.

Within this environment then, the child's use of private speech, to regulate his behaviour and response to tasks, as well as in emotional responses, play with words and sounds and imaginative play, is an interesting indicator of his use of language to articulate and guide his experience.

4.3 The essence of the research question.

Piaget identified talking to oneself as a stage in the development of the young child's speech as egocentric (Piaget, 1959). Vygotsky's research reworked the theory and identified this speech as more socialised and purposeful than Piaget had described (Vygotsky, 1978). It is on the basis of this speech being more socialised and therefore related to the child's social experience that this research question is based.

This study addresses a number of questions. It aims to explore and record details about language at many levels. These levels include the social speech of children; the private speech of children; the context of this speech; the context of interactions between children and their peers; the context of interactions between

children and adults; the experiences of teachers through the interviews and in the context of the teachers' response to the children's language.

There has been enough research done on private speech to justify the belief that private speech is used by young children. Just as there are individual differences in the way that children interact with others and their environment and in the way that they play, behave, speak and develop, there are individual differences in their use of private speech. However, this research investigated whether children, whose first language is not that of the centre, used private speech and if so, which language did they use. This research further investigated the individual use of private speech within the contexts of play. To complete the analysis of the central question the three subsidiary questions detailed below were applied.

4.3.1 In what context was private speech used?

Did the children use it in open-ended activities (such as in make-believe play and working with blocks) or in closed ended activities (such as completing puzzles) or in both? The difference in the open-ended as opposed to closed activities or tasks relates to the context of the use of private speech. The question relates to whether the children in this study used private speech in contexts where the end or goal was largely pre-determined or finite (such as in a puzzle) or where this is largely open-ended so that the goal or potential for use has wide-ranging possibilities.

On the basis of Krafft & Berk's study which found that private speech was 'richer' in open-ended activities (Krafft & Berk, 1998, p. 655), it was expected that similar patterns would be evident in this study.

4.3.2 Who was present when it was used?

The findings of Vygotsky (1978) that private speech is reduced and in some cases even non-existent when children realise that they are not being understood has implications for the research in this study. If children used private speech then the people who were there as witnesses to that private speech would be an important aspect of its use. Further, the role of the researcher would be critical in this as the presence of the researcher may have impacted on the child's perception of whether he or she was being understood or not. Recordings of who was present and the proximity of the people present, the activity in which they were engaged were documented as comprehensively as was practically possible.

4.3.3 Was there a response from the person or people present when it was used?

Did the private speech of the children initiate a response from the teachers or adults and children present? If so, what was the nature of the response? Did it take the form of providing a scaffold to assist the child with the task, or was it a social response, a way of responding to the child in a social sense?

Further, was the child playing on his own, alongside another child or participating with others in play? The types of play as identified by Parten (1932 cited in Kirby, 1997 and Krafft & Berk, 1998) and used by Kirby (1997) and Krafft & Berk (1998), are referred to in the analysis of the research findings. The range of these categories of play is related to whether the child is playing on his or her own (solitary), alongside another child or children (parallel), with another child or children but not working towards a shared goal (associative), or, as in co-operative play, playing with another child or children and working

towards a common goal or agenda (Parten, 1932 cited in Kirby, 1997). In observing the private speech utterances, the context of the play was noted. This context included the peer involvement in play, at that point in time, in the continuum of possibilities from solitary to co-operative play.

In collecting data to answer these questions the issues that were expected to emerge included the use of the child's own language or attempts to use English. It was expected that the child would use his or her own language in private speech.

Further, there was an expectation that an understanding of the relationships between the child and the teachers and other adults (as well as the relationships between the child and his or her peers) would emerge within this study. The proximity of the teachers and other adults and their involvement in the child's play was noted. The three categories used by Kirby (1997, p. 6) based on categories from Berk & Garvin (1984) are *directly involved: the teacher engaged interaction with the group of which the child was a part*; *watcher-helper: the teacher watched the child or was judged close enough to hear the child's verbalizations*; *uninvolved: the teacher was not within hearing range of the child and was not at least minimally responsive to the child's activity*.

The essence of private speech is that it is closed rather than open communication. It is usually not intended to evoke a response. However, private speech can occur at any point in play whether the child is playing alone or in a game with a shared goal. Private speech is also related to function/type, that is, whether it is affect, word play and repetition, fantasy play speech, describing own activities/self-guidance, inaudible uttering, [singing – not referred to by Krafft and Berk but added to the categories in this research] or other (Krafft & Berk, 1998).

4.4 The research springboard

There are a number of studies that relate specifically to the research addressed in this thesis.

Winsler, Diaz & Montero (1997) investigated the *role of private speech in the transition from collaborative to independent task performance in young children*. They concluded that:

Through private speech children can transfer to the personal (intrapsychological) plane, abilities that were achieved first in interpersonal (inter-psychological) collaboration.

Through private speech children exercise executive or self-regulatory control over cognitive processes in meeting the demands of difficult tasks. This second function underscores Vygotsky's notion that with the aid of private speech children can create their own ZPD as they self-scaffold to achieve higher levels of competence in a given task.

(Winsler, Diaz & Montero, 1997, p. 60).

They argued that through their private speech children talk themselves through tasks and problem solving in much the same way that adults would work with them to scaffold their learning. Further, in their suggested implications of the research findings they stated that private speech should at least not be suppressed and at most should be encouraged (Winsler, Diaz & Montero, 1997). They made a further point, that private speech allows adults a window into the child's thinking which should indicate the appropriateness of the tasks for the child. Finally, they noted that the scaffolding provided by the adult should be warm, non-directive, highly verbal and responsive (Winsler, Diaz & Montero, 1997, p. 77).

The intention of the analysis of private speech in this research is to raise the awareness of early childhood educators to the phenomenon of private speech and how this speech can be an indicator of the child's need for support or, even, an indicator that may suggest that the environment is not challenging enough. The research aims to provide a detailed account of the context so that any private speech is documented in relation to it.

It is noted that this research is based on case studies and therefore the results cannot be applied generally. However, the data collected will be used to raise the awareness of teachers to the experiences of children in other language environments as well as their use of private speech as a strategy for learning within the socio-cultural context of the kindergarten environment. Alerting teachers to the role of private speech in the child's cognitive and language development and reporting on the findings of the case study experiences of the EAL children in the study is intended to create an awareness of and empathy with the experiences of these children.

A research study which compared the use of private speech in two philosophically and correspondingly environmentally different pre-schools in the USA, found that children in non-teacher-directed, open-ended activities, especially make-believe play, led to children's language being *especially rich in spontaneous, self-directed utterances* (Krafft & Berk, 1998, p. 655). This too has significance for this research study. The curriculum approaches of the kindergartens in this study, although founded on elements of an eclectic collection of theories, and *Te Whāriki*, have a strong commitment to an enriched environment and an emphasis on the child as a constructor of his/her learning. There are extensive opportunities embedded in the curriculum approach and programme for children to engage in open-ended activities that are not teacher-directed. It was expected that the context of the occurrence of private speech would indicate whether the children in the study used private speech more when

engaged in open-ended activities or whether they used private speech in tasks that were limited in exploration and use. In their research Krafft & Berk (1998) found that private speech was less predominant in teacher-directed tasks. Another finding of note for this research is that private speech increases steadily between the ages of three and five and gradually decreases until it virtually disappears at the age of seven (Diaz, Padilla & Weathersby, 1991). The children in this study were in the four (plus) age group and therefore it was expected that private speech would be increasing. However, Kirby (1998) suggested that not all private speech follows this pattern and that private speech observed in fantasy play is highest in two year olds. In her research on fantasy play and private speech she stated,

The findings of this research did not support Vygotsky's curvilinear trend hypothesis that private speech increases from age three and peaks during the late preschool or early elementary school years. In this investigation, two year olds displayed the highest incidence of private speech during fantasy play episodes (Kirby, 1998, p. 7).

Further research design decisions were based on Gillen's (2000) research on imaginative play. She investigated *pretence telephone talk* and its relation to private speech (ibid, 2000, p. 181). Gillen described *pretence calls* as belonging to the child and noted that they are neither elicited by the adult nor under the adult's control (Gillen, 2000). She made a convincing case for pretence calls to be identified as private speech. Gillen's study was expected to have relevance for this research. Children's pretend telephone conversations occur regularly in kindergarten contexts. It was therefore expected that children in the present research would engage in pretend telephone conversations and opportunity was made in the observation and analysis to identify this form of private speech. Although there were occurrences of private speech in pretend telephone calls, these occurred in children who were not part of the case studies.

The research in this thesis primarily examines the language experiences, particularly that of private speech, of the children within the context of the environment and the people with whom they come into contact and interact. It sought to document how these children express themselves in the socio-cultural-linguistic context of the early childhood setting. From these language expressions other factors emerged. The context of the utterances gave insight into the purpose of the utterance. Documented examples of private speech indicated in whose presence private speech utterances occurred (for example, adult presence, or other children), and the context in which the utterance occurred (peer involvement and goal/type of activity). These will be summarised in chapter five.

For the purpose of this research, the context of the children's use of private speech is critical to understanding the reality of their learning experience. Therefore the research was conducted in the natural setting of the kindergarten and the environment was manipulated as little as possible. As the researcher I assumed the role of informal observer/watcher/and potential helper. Although I was accessible to the children I attempted as far as possible not to influence or interfere in the children's play.

4.5 Research methodology

While the dominant methodology for this research was qualitative, some quantitative techniques were used in order to manage the data and to identify patterns. However, in terms of a theoretical perspective this research was located strongly in a qualitative paradigm. It was set in a naturalistic context and was based on participant-observation.

The metaphor used by Creswell (1998) to describe qualitative research appeals particularly because it presents the complex and rich layers of data that became evident through the research. Creswell referred to qualitative research as:

an intricate fabric composed of minute threads, many colors, different textures, and various blends of material (Creswell, 1998, p. 13).

The choice of qualitative and naturalistic research method was further justified by recent discussions of usefulness in Guba and Lincoln (1999). Guba and Lincoln referred to the differences in quantitative and qualitative research. They discussed these in terms of a rationalist as opposed to naturalist research design from a number of critical concepts. These concepts include the *nature of reality; the enquirer-respondent relationships; the nature of truth statements; causality; relation to values, and the pragmatics of research in method; source of theory; knowledge types; the instruments; the design and the setting* (Guba & Lincoln 1999, pp. 141-147).

Particularly significant in terms of the research in this thesis are the following concepts. Knowledge was acquired using the *human-as-instrument* (ibid, 1999, p. 145). From this interpretation and in relation to this research the researcher's insights into understanding of the events and behaviours are acknowledged as having validity, these insights are themselves an instrument. A further characteristic of *qualitative* research and based in a *naturalistic* setting is that the *design emerges as the enquiry proceeds* (ibid, pp. 144-146). Such a change happened in the research in kindergarten two based on the experience in kindergarten one. It was decided to extend the planned length of time in kindergarten two and to conduct the research on consecutive days over this period rather than in a few days each week of the research period.

In this approach to research based on the discussion in Guba & Lincoln (1999, pp. 141-147) there is also an acknowledgement that there are *multiple realities which exist in the minds of people* (ibid, p. 142). The private speech which was

observed was based on the insights and decisions made by the researcher. These decisions were based on intuition and an awareness of where the children were located in the kindergarten environment. If the case study children were not close by, the researcher would take the initiative to unobtrusively move to places where they (one or more of the case study children) were engaged in play. From this perspective the reality that is regarded as relevant is based on the insight and experience of the human instrument (the researcher).

In terms of *enquirer-respondent*, the human instrument *achieves maximum responsiveness, adaptability and insight* (Guba & Lincoln, 1999, p. 142). Such responsiveness, adaptability and insight could be seen in the decisions which I made on a moment to moment basis about where I should locate myself in relation to the children, and how I should conduct myself (for example, looking away from the child but still being able to see and hear what the child was doing and saying). In making these decisions I was able to gain insight into the child's behaviour, while having as little impact on that behaviour as possible.

Guba and Lincoln also argue that the issue of *causality* does not feature in a simplistic cause and effect relationship (ibid, p. 143). Rather it is acknowledged that there is a complex interplay between people and environmental factors. The best that the *enquirer can hope for is to establish plausible patterns of influence* (ibid, p. 143). The patterns of influence in this research included the contexts in which private speech was observed. These contexts included the types of play, the play environment, the relationships or interactions with others as well as the lack of these interactions.

In choosing the natural setting of the kindergartens I was supporting the notion that *only in nature can it be discovered what does happen rather than what can happen* (ibid, p. 146). By using the traditional observation methods used by teachers I was able to have a sense of what teachers can see and hear in the

child's private speech if they allowed themselves (and if the situational context allows them this space) to listen to and to watch the child.

Based on this research methodology, it was expected that this research would show the private speech of the children in the study within the naturalistic background of the kindergarten context, revealing an essence of what that context entailed.

My professional background is as an early childhood educator. As a researcher I observed and recorded the private speech utterances of the children in the study. This also encompassed interactions between children and the adults and children in the kindergarten. Although my role was essentially as an observer, because of this connection with the field, this role was more akin to participant observation as is experienced in ethnographic research. I was available to the children if they wanted to interact with me but did not attempt to initiate interactions during the observation processes.

Another aspect of qualitative research is that it allows for more flexibility than quantitative research. I anticipated following the process which had been planned but did not eliminate the possibility of responding to the findings whilst the research was proceeding and adding other methods or a different approach, within the structure approved by the Ethics committee. Bouma (2000) described this flexibility in the design of qualitative research as allowing the researcher maximum opportunity to learn from the subjects or participants and for the research techniques to be open-ended rather than closed. This proved to be a valid choice as the video-audio recordings proved to be problematic and I reverted to informal observation and written recording of these observations as the optimum method in that context.

While acknowledging the vast difference between the scope of this study and Piaget's research, it can be noted here that Piaget's research was based on

extensive note-taking. He also attempted to avoid interfering with the children's activities and tried not to influence their behaviour in any way (Ginsburg & Opper, 1969, p. 87). While I had to record the child's private speech without a second researcher alongside, Piaget was able to work with a second researcher which would have contributed to the process of establishing the reliability of his findings during the research. In this research the factors which contributed to the process of establishing reliability included the role of the teachers, the parents and a reviewer. Teachers were asked to observe and document the private speech of the case study children and although only one teacher did so during the research period, this contributed to the findings. The parents were also asked to observe their children's private speech and although formal documentation was not carried out in the home, some parents were able to make anecdotal comments about their child's private speech. Further to this, a second person who was independent from the kindergarten, was asked to review the findings and the analysis of the private speech. These strategies were an attempt to strengthen the analysis although they did not always yield the expected results. Only one teacher documented children's private speech and the responses from the parents regarding their observations of private speech in the home did not support the observations in the kindergartens.

Another dimension of the research methodology is that it can also be described as essentially a case study approach in the sense that it is qualitative, descriptive (eliciting a *thick description of the phenomenon under study*) and naturalistic, focussing on *meaning in context* (Merriam, 1988, p. 21). Further, it is heuristic, offering insights into the language in the early childhood educational context, and inductive, focussing on *process, understanding and interpretation* (Merriam, 1988, p. 21). In this research the researcher was the *primary instrument* for data collection and analysis and was flexible and responsive to context (Merriam, 1988, p.19). These qualities support the descriptors in Guba

& Lincoln (1999, pp. 141 - 147) and reinforce that this research was essentially naturalistic.

Further, this study was an exploratory study of the experience of the use of private speech in kindergartens (Bouma, 2000). The research question was from one perspective open-ended. It was open to discovering the experiences of children. In another instance though it was based on the discovery by Vygotsky that children in foreign language environments who feel that their own language will not be understood will not use private speech or if they do, will use very little (Vygotsky, 1978). My hypothesis was that if the children in the study felt comfortable and safe in the environment and had established positive relationships with the teachers, adults and children in the centre, they would be more inclined to use private speech in their play and in working through tasks. It was therefore expected that these children would use private speech to at least some extent.

4.6 Ethical considerations

This research is about children, their use of private speech and their relationships particularly in terms of language. As such it involved close investigation of the experiences of children and teachers and to some extent other adults in early childhood centres. A successful application was made to the University of Auckland's Human Subjects' Ethics Committee to conduct the research. The rights of the teachers, children, parents and *whānau* at the centres were respected at all times. This respectful, ethical practice was to a large extent implicit and formed the essence of the reciprocal relationships with each of the two kindergarten communities. These attitudes and responses were fundamental to the research process. Ethical practice was further supported and upheld by the teachers in both kindergartens who through their open and respectful

relationships with the parents, families and caregivers, also initiated dialogue so that parents had opportunities to discuss the research process.

Bouma listed five principles of ethics in research. These are:

Researchers must treat with dignity and respect the persons, groups and organisations which participate in the research.

Research must be based on knowledge of the work of others in the area and be conducted and/or supervised by persons qualified to do the work who have the necessary facilities to ensure the safety of participants.

The potential benefits of a research project must substantially outweigh the potential harm to participants.

Participants in research must be able to make a voluntary, informed decision to participate.

Research is a public activity, conducted openly and accountably to both the researcher's community and to the participants in the study.

(Bouma, 2000, pp. 194-199)

These principles were fundamental to this research undertaking and were considered throughout the research process.

4.6.1 Privacy and confidentiality

The privacy of the children, parents and teachers is protected. Protecting their rights to privacy underpins all aspects of the research. The names and specific locations of the centres and the identity and any clues to the identity of the people involved remains confidential at all times.

Issues with video-taping were responded to and, as indicated, the use of the video recorder in kindergarten one was minimal to adjust to the needs of the children. While the recorders were activated a notice was displayed to advise anyone entering the centre that the recorders were in use.

The confidentiality of all the recorded speech was maintained at all times. It was not necessary to have the private speech of the children in the study translated, however, should this have been the case, the transcribers would have had to sign an agreement of confidentiality before commencing the work.

4.6.2 Permission

Once the research study was approved by the University of Auckland's Human Subjects' Ethics Committee, permission was sought from a number of sources. These included the Associations managing the selected kindergartens, the staff at the kindergartens, the parents of the children at the kindergartens and the parents of the children who were to be observed at the kindergartens.

The interviews with teachers were used to meet the needs of the research framework and to answer questions. The interviews also provided a forum and an opportunity for teachers to discuss any issues with the research process and to work out strategies for their own sense of wellbeing as well as the children and adults in the centre.

In the following section details of the method used in the collection of research data are described.

4.7 Method: Kindergarten selection and sample selection

The sample included in the case study research consisted of two groups of four children, aged approximately four years, from two kindergartens. This age group was chosen as research has indicated that private speech peaks at around age five (Frauenglass & Diaz, 1985). Since children in New Zealand typically

start school on their fifth birthday, it was not possible to observe them in a kindergarten situation at this time, hence the choice of a younger age group.

Factors that were considered in the selection of the kindergartens and selection of individual children within the kindergartens included the following aspects which were described in the research proposal:

1. Children attending are from a wide range of linguistic and cultural backgrounds.
2. The centres should have a high population of new migrants to *Aotearoa* New Zealand.
3. The teachers are committed to quality education for young children and have a high standard of practice as assessed by Education Review Office reports and each centre's respective Associations as well as from recommendations from colleagues in the field of early childhood education.
4. Teachers have acknowledged a commitment to supporting the child's language development.
5. The willingness of teachers, parents and *whānau* to be included in the research.
6. The willingness of teachers, parents and *whānau* to share their experiences of language interactions, expectations and related issues which they may identify for the child and for the family.
7. The willingness of the teachers to be participant observers in the research.
8. The willingness of teachers to be interviewed and to share their expectations and experiences related to language issues.
9. An understanding that the children and families in the study plan to remain in the centre for at least three months.
10. The children and families should have been in New Zealand for a period of at least between six months to a year. This would allow the

children and families to have had a settling in period in *Aotearoa* New Zealand so that they are more comfortable about participating in the research. However, the teachers and parents and *whānau* would direct the choice and inclusion and their suggestions and recommendations would be taken into consideration.

11. The parents, teachers and children had to be comfortable and willing to support the research process over a period of three months and where necessary to contribute to a process where the observations and interviews are validated. Once selected and the process of the research approved, the children were involved as much as possible without creating stress or an artificial environment for them. Instruments such as the video cameras and audio-cassettes were shown to the children as and when needed.

The centres were chosen with the help of two Kindergarten Associations in the Auckland Region. In the research the sample included four children from each centre who were selected by the teachers based on the criteria above and their knowledge of the children and families. Ideally the children from each centre should have been from similar language backgrounds such as all four from Asian (Chinese) or Asian (Indian) backgrounds, so that there was some commonality of background. However this occurred in only one kindergarten.

4.8 Settings: Kindergarten one (K1)

Kindergarten one was a public kindergarten ranked as decile one which means that it is ranked at the lowest socio-economic scale according to the New Zealand Ministry of Education and requires maximum resource support. This kindergarten therefore qualified for Equity Funding (discussed in chapter two). It had a roll of 43 children in the morning session (in which the research took

place) and the same number for the afternoon session. There were three qualified teachers, a teacher-assistant who worked three mornings a week and a fourth teacher who worked for two days a week to support the full time teaching team. Each teacher was qualified with a diploma or degree in ECE and held teacher registration. One of the teachers had extensive kindergarten teaching experience, and the other three teachers had less than ten years but more than five.

The children in the morning session were aged four plus years. Although children can enrol at kindergarten from the age of two, there is such a huge demand for places in the kindergarten that the older children are admitted first to give all children an equitable chance of some time in the kindergarten before attending school. On their fifth birthday the children generally move onto primary school.

This kindergarten had some voluntary parent help with activities like baking, organising the morning tea table, helping out with cleaning chores and in helping to manage the funds which came in from donations and fundraising and helping with raising funds, although this role had reduced with the introduction of Equity funding.

4.8.1 Cultural and linguistic context of kindergarten one.

Kindergarten one had a high percentage of children from a Samoan background within its diversity of cultures and languages, as presented in Figure 4.1.

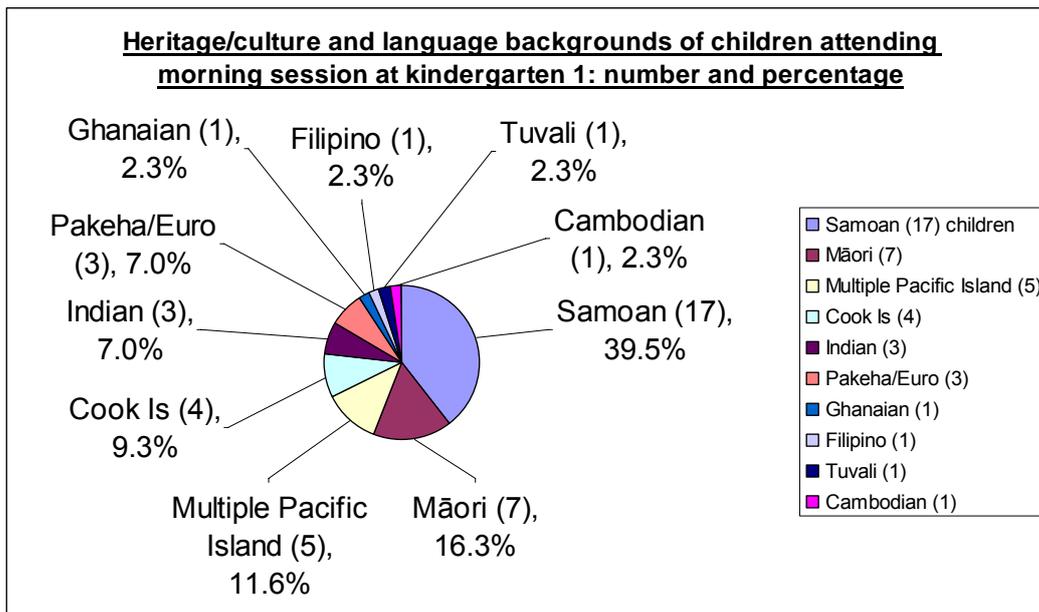


Figure 4.1. Chart showing the numbers and percentages of occurrences of cultures of all children enrolled in the morning session of kindergarten one.

Figure 4.1 above shows the cultural diversity from all children attending morning session at K1. Although there is a predominance of language and culture defined as Pacific Islands (62.7%) it must be noted that each has a unique language and culture. The ten cultures and languages in the enrolment demonstrate the diversity of the kindergarten.

4.8.2 Background of each child in the study at kindergarten one (K1)

The names of all the children have been changed to protect their identity. There were four children each aged four plus years as detailed in Table 4.1 below.

<p>Tana: Male Age in August 2003: 4 years 8 months Cultural and linguistic background: Samoan</p> <p>Lillian: Female Age in August 2003: 4 years 6 months Cultural and linguistic background: Samoan</p> <p>Jimi: Male Age in August 2003: 4 years 9 months Cultural and linguistic background: Samoan</p> <p>Elizabeth: Female Age in August 2003: 4 years 3 months Cultural and linguistic background: Samoan</p>

Table 4.1 Background of each child in the study at kindergarten one.

Each of these four children was from a Samoan cultural and linguistic background. Each had been in New Zealand for longer than six months and would be in the kindergarten for a period of at least three more months. In planning the research it was intended to try to find a group of children from similar language backgrounds to make interpretation of language easier as well as to minimise cultural differences. This was achieved in this kindergarten environment.

The children’s fluency in Samoan and English was not tested. An understanding of their levels of fluency is based on the discussions with the parents and the teachers who were interviewed. According to these discussions, all children would have more than a functional fluency in Samoan as this was the language of the home.

Tana was fluent in Samoan and knew some English, Lillian was fluent in Samoan and knew some English, Elizabeth spoke Samoan because they used Samoan at home but she was also fluent in English since her extended family use English

and she sees them frequently. I did not interview Jimi's parents but it was noted by the teachers that he spoke Samoan at home and therefore it was assumed that he would be fluent in Samoan. We were not sure of his level of fluency in English.

4.8.3 Time – Kindergarten one

In terms of time spent at the kindergarten I was available for observation for twenty-six hours. Not all of this time was spent documenting observations but I was ready to do so when private speech occurred.

4.9 Settings: Kindergarten two (K2).

Kindergarten two is also decile one which again means that the kindergarten qualified for Equity funding (discussed in chapter two). It was a smaller centre with only thirty children on the roll in each of the morning and afternoon sessions. The research took place in the morning session. The two teachers each had a degree in ECE (one teacher additionally had a higher degree). One teacher had extensive kindergarten teaching experience while the second teacher had a few years experience. There was also a teacher-assistant who worked four mornings a week. This kindergarten received some voluntary parent help with activities like baking, organising the morning tea table, helping out with cleaning chores and in helping to manage the funds which came in from donations and fundraising.

The children in the morning session were, as in K1, aged from four through five. Again the children traditionally would move on to primary school, to the new entrant class, on their fifth birthday.

4.9.1 Cultures and language contexts at Kindergarten two.

As was the case in K1, four children were selected by the teachers in K2 as suitable and their parents agreed to be included in the study. Unlike K1, the children were each from different language backgrounds including Cambodian, Filipino, Farsi and Samoan cultures.

The cultural and linguistic diversity of kindergarten two is described in Figure 4.2 below. The children who attended were from diverse cultures.

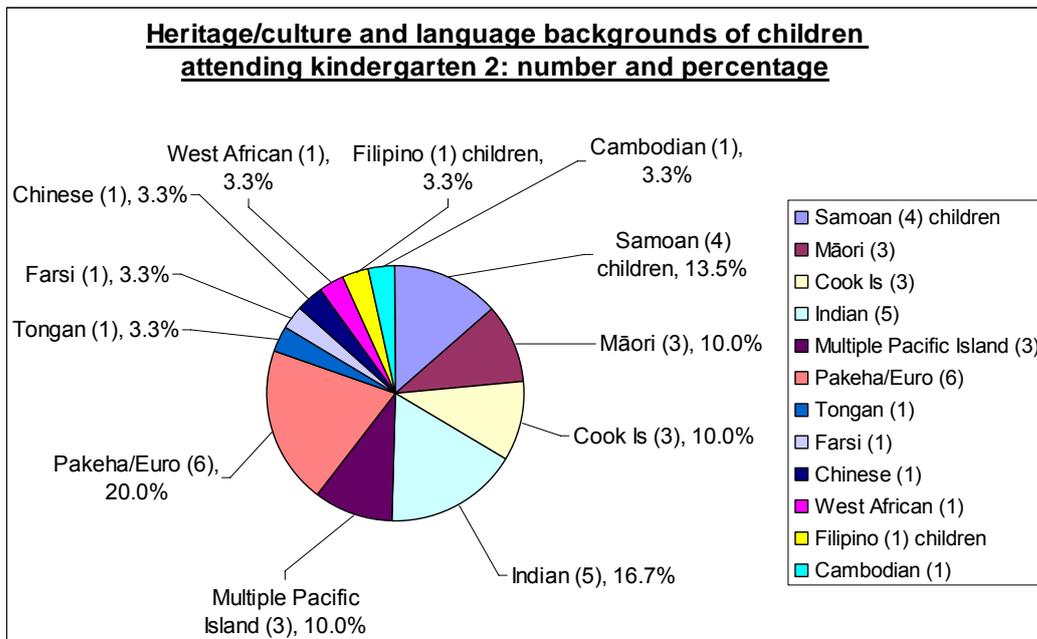


Figure 4.2 Chart showing the numbers and percentages of occurrences of cultures of all children enrolled in the morning session of kindergarten two.

4.9.2 Background of each child in the study at kindergarten two

There were four children selected for the study each aged four plus years as detailed in Table 4.2 below. Each of these four children was from a different cultural and linguistic background. Each had been in New Zealand for longer than six months and it was expected that they would be in the kindergarten for a period of at least three more months. In planning the research it was intended to try to find a group of children from similar language backgrounds to make interpretation of language easier as well as to minimise cultural differences. This was not achieved in this kindergarten environment.

The names of all the children have been changed to protect their identity.

Selena: Female

Age in May 2004: 4 years 6 months

Cultural and linguistic background: Samoan

David: Male

Age in May 2004: 4 years 5 months

Cultural and linguistic background: Cambodian

Arial: Female

Age in May 2004: 4 years and 9 months

Cultural and linguistic background: Phillipines

Behnaz: Female

Age in May 2004: 4 years 2 months

Cultural and linguistic background: Afghanistan/Farsi

Table 4.2. Background of each child in the study at kindergarten two.

The children’s fluency in each of their home languages and English was not tested. An understanding of their levels of fluency in each was based on the discussions with the parents who were interviewed.

According to these discussions, all children would have more than a functional fluency in their home language. Selena was fluent in Samoan and knew some English. Ariel was fluent in Filipino and knew some English. Behnaz was fluent in Farsi because they spoke Farsi at home but she also knew some English. David only spoke Cambodian at home and was fluent in Cambodian. He knew some English from what he had learnt through the media, circumstantially and at kindergarten and possibly from his older brother who spoke English.

4.9.3 Time – Kindergarten two

In terms of time spent at the kindergarten I was available for observation for forty-six hours. Not all of this time was spent documenting observations but I was ready to do so when private speech occurred.

4.10 Time frame for research

The time frame for the research is described in Table 4.3. (For clarity it should be noted that kindergarten 1 is a member of Kindergarten Association B and that kindergarten 2 is a member of Kindergarten Association A).

Date	Research Method	Who is involved
Preparation for research	Wrote a letter to kindergarten teachers informing them of the research and inviting them to	Professional Service

October, 2002 Liaison: Kindergarten Association A	participate. This was included in the newsletter from the Kindergarten Association to teachers at the end of 2002 but there were no positive responses to this. (After a lengthy wait I went to the second Kindergarten Association B).	Manager of the Kindergarten Association (A)
June, 2003 Liaison: Kindergarten Association B	A meeting was arranged with a kindergarten (K1) which was identified as meeting the requirements described in my research proposal.	Professional Service Manager of Kindergarten Association (B) and then the teachers at K1.
Research: K1 August/September, 2003	Preliminary study in K1	Teachers, four children, parents and <i>whānau</i> (K1).
August/ September, 2003	Semi-formal meetings, semi-structured interviews, as well as informal meetings and discussions with kindergarten teachers at intervals throughout the study (K1).	Teachers (K1) who participated in the studies
August/September, 2003	Meetings and interviews with parents of the children in the study (K1).	Parents of the children in the study. (K1).
August/September 2003	Observations in K1 and transcribing recordings, collating observations and recording data	Teachers, children, parents and <i>whānau</i> . (K1).
August to September 2003	Further liaison with Kindergarten Association A and first formal meeting with the teachers from recommended K2. Second formal meeting with teachers from K2	Professional Services Manager at Kindergarten Association(A). Teachers at K2.
Research K2	Initial meetings with parents. Observations in kindergarten two and	Teachers, four children, parents.

May / June, 2004	transcribing recordings, collating observations and recording data.	
May / June, 2004	Semi-formal meetings and semi-structured interviews, and informal meetings and discussions with kindergarten teachers at intervals throughout the study	Teachers who participated in the studies
May /June, 2004	Meetings and interviews with parents of the children in the study	Parents of the children in the study
November/December 2004 (ongoing until completion of thesis)	Analysis of data	Researcher. Reviewer.

Table 4.3. Sequence and time frame of research.

4.11 Research: Kindergarten one (K1)

4.11.1 August through to September 2003: Preliminary study in a kindergarten.

A preliminary set of observations in K1 was conducted as a trial run of the observations, including the use of tape recorders (briefly) and video recorders and the associated forms used to record the context of the language utterances recorded.

4.11.2 August and September 2003. Interviews and meetings.

At K1 there were two interviews with teachers and two interviews with parents.

Interviews were conducted with one parent of each of the children in the study (one parent did not attend the second interview) to provide a forum to both involve them in the research and for an opportunity for them to share their experiences. These interviews were semi-structured, conducted in an informal style. The topics included questions such as which languages were spoken in the home and in places such as attending church or community meetings, or at a friend's house, or with grandparents. Parents were also invited to comment on their incidental observations of private speech used by their children (from the case-study) in the home.

The first parent interview was at the start of the research and was essentially to inform parents of the nature of the research, to establish a connection with the parents and to invite any questions. The second interview, towards the end of the research, was a forum to explore more deeply what language was used in the home and community and the parents' views of the potential for language retention (discussed in general terms) for their children and families. The style of discussions with parents was generally informal, with a semi-structured interview held at the end of the research.

The two interviews with the teachers were also semi-structured. These were conducted in a style which was compatible with the professional relationship between the kindergarten teachers and the researcher who has kindergarten teaching experience. Based on that relationship, of shared understanding of the kindergarten context, the role of the researcher in these interviews may be described as a 'cultural insider'.

A semi-formal interview with teachers was held to identify what issues presented themselves to them in terms of language for children from diverse language backgrounds. These interviews were semi-structured allowing the teachers the opportunity to discuss issues freely. The interview was also used to discuss the research progression and to discuss any problems that teachers were experiencing as well as to provide a forum for discussion of the teachers' and researcher's experiences. (See appendix two for the specific questions that were addressed in the teacher interviews).

4.11.3 August to September 2003: Observations, video recordings.

Observations from August to September formed the most time-consuming aspects of the study. The observations included observations of the four children, from non-English backgrounds, in K1 in the Auckland region.

The children's use of language, including particularly their private speech, was recorded using audio-video recorders and taking notes. The intention was to place the video recorder at different times in positions indoors where children are most likely to use private speech. These were the block area, the family corner, the puzzle area and the art area, (particularly focussing on the writing tables and drawing area). The plan (which met with obstacles) was to switch the video recorder on for an hour each morning in K1. This proved to be difficult because two children were not allowed to be included in the study. One child ('V'- not part of the study), who was not allowed to be recorded on videotape, displayed repeated and intense interest in the video equipment and use. The camera then had to be worked manually and switched off when either of these two children came close to the camera as both could not be included in any video recording even incidentally. The use of the video recorder became disruptive to one child's play ('V') and video-recording was problematic.

Note-taking of the observations of private speech became the most effective method. The researcher informally observed the four children and recorded the utterances of private speech. The context of these utterances and language used was noted as well as the responses of their peers, teachers, parents and other adults.

The preliminary study became an extended study. The original plan was to have two or three initial sessions in the kindergarten and to use this as the pilot study. However, this period extended as it took time to form relationships with the teachers, children and parents and clear ideas about how the research should progress were only identified over a period of time. After due consideration it was decided that the observations conducted in kindergarten one would form the 'preliminary' study rather than a pilot study. A longer period of time, with the researcher being present on a daily basis over a period of three weeks, would be spent in the observation phase of the research in kindergarten two so that a relationship could be formed with the teachers, the children and the parents and family. The decision to change this to a three week period with daily visits would not have been possible in kindergarten one because of external factors but having identified that this was possibly a better scenario, it was negotiated with the kindergarten two teachers as the plan.

The preliminary study was used to consider the effectiveness (and otherwise) of the technical equipment as well as the effectiveness of the systems of observation by the researcher and the teachers. A further initial plan was for the language recordings to be transcribed and translated. This proved to be unnecessary as the children's private speech was all in English. The form that was used to record the language utterances as well as conversations, based on the form suggested in Bouma (2000, p. 64), was made available to the teachers.

4.12 Research: Kindergarten two (K2)

4.12.1 May to June 2004. Interviews and meetings:

These had a similar structure and progression to K1. At kindergarten two all of the parents were able to attend the interviews. The first parent interview was at the start of the research and was essentially to inform parents of the nature of the research, to establish a connection with the parents and to invite any questions. The second interview, towards the end of the research, was a forum to explore more deeply what language was used in the home and community and the parents' views of the potential for language retention (discussed in general terms) for their children and families. The style of discussions with parents was generally informal, with a semi-structured interview held at the end of the research.

The two interviews with the teachers were also semi-structured. These were conducted in a style which was compatible with the professional relationship between the kindergarten teachers and the researcher who has kindergarten teaching experience. Based on that relationship, of shared understanding of the kindergarten context, the role of the researcher in these interviews may be described as a 'cultural insider'.

A semi-formal interview with teachers was held to identify what issues presented themselves to them in terms of language for children from diverse language backgrounds. These interviews were semi-structured allowing the teachers the opportunity to discuss issues freely. The interview was also used to discuss the research progression and to discuss any problems that teachers were experiencing as well as to provide a forum for discussion of the teachers' and

researcher's experiences. (See appendix two for the specific questions that were addressed in the teacher interviews).

4.12.2 May to June 2004: Observations, video recordings

While yielding less than the recorded observations, the video recordings were useful in providing the context as well as some examples of private speech. As with kindergarten one, the documentation of observations was time-consuming but extremely productive in comparison with the audio-video recordings. However, in this phase of the research, the video camera was used both indoors and outdoors and caused minimal distraction to the children. Although initially the video-camera was switched on for an hour only, as the research period came to a close, the video was used for longer periods, sometimes for two hours, but not continuously. During the time that the video camera was active, a notice that signified this was placed at the entrance to the kindergarten building. The video was left active in different points such as out of reach on a shelf in the family corner or in the block corner. It was also used manually, as unobtrusively as possible such as placed alongside the researcher, or held casually on the knee.

4.13 Summary of research progression

Table 4.4 gives a summary of research timing and recorded utterances for each of the kindergartens.

K1.

August to September 2003:

From 9 am to 11 am (or longer) every Wednesday over an eight week period.

Total number of hours spent observing and recording when appropriate: 26 hours.

Total number of utterances of four case study children's private speech: 25
<p>K2.</p> <p>24 May to 15 June, 2004, daily during the morning sessions.</p> <p>Total number of hours spent observing and recording when appropriate: 46 hours.</p> <p>Total number of utterances of case study children's private speech: 147</p>

Table 4.4. Overview of research in kindergarten one and kindergarten two.

4.14 Reflection

The length of the period spent in the kindergarten and the regularity of the observations, (particularly in kindergarten two), led to the researcher becoming a familiar part of the centre both to the children and teachers as well as the parents and *whānau*. This familiarity led to the development of a rapport with the members of the centre and to an ease in the research process. Ethical considerations were paramount and the potential strain that participation in the research might have on the staff and children was considered and evaluated, through reflection, and actions, such as abandoning the video recording in kindergarten one and extending the research process in kindergarten two, were made throughout the process.

The form used to record the utterances of private speech was based on the form suggested in Bouma (2000, p. 64) and adapted to suit the research questions.

This form (shown in Table 4.5) was used to organise the details surrounding the utterance and thereby aid in the analysis of the data. (See appendix three for an example from the research).

Name of child and date	Where ?	Private speech type: Affective/word play /fantasy play/descriptive and self guidance/inaudible/other	Type of speech and child's name	Who is in close proximity of the speaker?	Name of recipient if social speech	Comments on context:
24/5 David	"Block Corner	Yes! Yay! Aff	Affective	On his own + Researcher		Piling the blocks on top of each other

Table 4.5. Observation form for recording language context with illustrative entry.

4.15 Categories of private speech.

The categories of private speech used were based on Krafft & Berk (1998) who based theirs on Berk & Garvin (1984).

<p>Affect expression: expressions of emotion that are not directed to any particular listener, or expressions having no external stimulus but that seem to be attempts by the child to integrate a past event or thought Example: N. sees a new set of Legos and says to no one in particular, "Wow! Cool!"</p> <p>Word play and repetition: repetition of words and sounds for their own sake. Example: D. wanders aimlessly around the room repeating, 'Put the napkin on your head; put the napkin in your pocket; put the napkin on the table.'</p> <p>Fantasy play speech: Role play verbalizations that take the self or an object (such as a puppet or a doll) as a social partner.</p> <p>Describing one's own activity and self-guidance. Remarks by the child about his or her own activity directed towards no one in particular. This category includes descriptions of what the child is doing as he or she is doing it and thinking out loud, or goal-directed plans for action. Examples: P. sits down on the carpet and says to himself, "I want to cut this out. I need some scissors." O., scanning the room for his favorite [sic] game, says to himself, "Where was the last time I saw it?" He ponders for a moment and then responds to his own query, " I know, in the blue cabinet."</p>
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Inaudible muttering: *Remarks uttered so quietly that they could not be understood by the observer.*

Other: *Private speech that could not be coded into any of the above categories.*

(Krafft & Berk, 1998, pp. 646, 647)

These examples were used to clarify the coding of private speech. The categories of descriptive and self-guidance could arguably be separated. In the following example, Vygotsky (1986) refers to a child who in an experiment talked himself through the problem (descriptive) of not having the blue pencil which he needed for the task and then solved the problem (self-guidance).

Where's the pencil? I need a blue pencil. Never mind, I'll draw with the red one and wet it with water; it will become dark and look like blue. (Vygotsky, 1986, p. 30).

This example illustrates how the description is linked to the solution to the problem. The child first describes the problem and then defines the solution. As in Krafft & Berk's (1998) research, in the analysis of the private speech utterances in this thesis, the categories of descriptive and self-guidance were combined. However, it was found that although the child may have described what they were doing, this did not always mean that they were defining a problem or lead to the next step, finding a solution. There were occasions when the child simply described what they were doing or what they observed.

The researcher (and one teacher in K2) took anecdotal observations of the children both at play with open-ended activities as well as closed-ended tasks and in more formalised group sessions. Since the open-ended periods of play formed the major part of each session, the majority of observations took place during 'free play', the periods during which children made decisions about where

they played, what materials and resources they used in their play, and with whom they played.

These observations inform the context of the language used by each child in the study both in private speech and in socialised speech. Since it is part of their practice for teachers to write up observations of children in their play, this was not outside their normal experience or practice. However, due to different foci and other commitments in their teaching, only one teacher took notes of private speech.

4.16 Initial analysis of data: November and December, 2004

The data was analysed by the researcher using all the data collected throughout the research process. The researcher revisited the kindergarten teachers from both kindergartens in February 2005 to discuss the results and any other issues with the research.

4.17 Collection of information

Analysis of both K1 and K2 and the differences in the way that the research was managed is discussed in this chapter and following chapters. Details of the recorded private speech are presented according to the utterances and related details of each child. It must be noted that an important aspect was establishing the children's trust and establishing teamwork between the teachers and the researcher.

4.17.1 Practical issues in K1 and K2.

The preliminary study proved to be extensive and rewarding on its own merit. The extensiveness of this study led to many opportunities for recording the private speech of the children. After the initial settling in period to establish what worked and what did not, the research continued using a system of taking notes of informal observations rather than using the video and tape recorders. The preliminary study was used to work through practicalities and technical issues in the research process. Factors such as where to place the audio-video recorders, the effectiveness of the recordings, difficulties that presented themselves were worked through and strategies found to remedy them by changing the research method to note-taking as the more effective option. Some of the children could not overcome their interest in the video camera. The centres can be noisy environments and the tape recorders proved to be ineffective. Based on these factors I then used note-taking as the principal and most successful form of recording.

This period was essentially used to identify areas for development and to put into place strategies for optimum effectiveness of the research process whilst maintaining optimum conditions for the participants in the study and the general programme of the centre. Issues which were evident in the preliminary study as well as in the continued research in both kindergartens were:

The teachers were very busy both within the session and after the session in their non-contact time. This led to my being aware of not imposing on teachers' time which led to a reduction of the interaction between myself and the teachers. Out of session meeting times proved to be more effective than informal chats during the sessions. Lunch times proved to be the most effective time and although I was scheduled to be at the kindergarten for the morning session only, these times changed when there was a need for us to meet and discuss the research. At these

'meetings' we were able to chat and discuss the research without taking away teaching moments from the teaching team.

The semi-structured interviews were held at lunchtimes, seated around a table.

4.17.2 Observations and documentation

Informal observation and documentation of the children's language (focussing on private speech) in L1 (first language) or L2 (second language) were the primary objectives. The parents were asked to identify where English was spoken and where their first language was spoken, for example at a friend's or at community gatherings.

4.17.3 Interviews and collation and analysis of data.

This focus included the semi-structured interviews with parents, the teachers and the collation and analysis of the data.

4.17.4 Interviews with teachers

In these semi-structured interviews some key questions were framed and the conversation directed to answering these questions. However, the teachers were largely invited to share their thoughts, feelings and experiences around the area of the language experiences of the children as well as the teachers' own experiences. As in K1 these interviews were conducted in a style which was compatible with the professional relationship between the kindergarten teachers and the researcher who has kindergarten teaching experience. Based on that

relationship, of shared understanding of the kindergarten context, the role of the researcher in these interviews may be described as a ‘cultural insider’.

These interviews were used to provide the teachers with the opportunity to share their experiences and the discussion, to a larger degree, remained open within the topic area. (See appendix two for further details about the questions that were addressed).

4.17.5 Interviews with parents

These interviews contributed to secondary data. The main purpose of the interviews was to involve the parents in the research, to provide the parents with the opportunity to talk about their experiences and issues related to the language of their children and families and for the researcher to gain insight into the home background with regards to language. The format of the interviews although semi-structured tended to be informal and conducted as a conversation rather than a formal interview. The interviews were conducted in the kindergartens in whatever space was available for example, outdoors on the deck or sitting on cushions indoors.

Further, parents were asked to note utterances of private speech in their children in the context of their home. The expectation was that these would not involve rigorous observation which could be intrusive for the family. Parents were asked to be aware of the speech and to make notes when they observed self-talk happening and to note the context of the speech. Opportunities to share these utterances were structured into the interviews. Notes were taken to support documentation of the discussion.

4.17.6 Review

In order to clarify the coding of private speech, a reviewer who was not an observer in the kindergarten was involved in categorising the recorded observations of private speech. Initially, the reviewer was given Krafft & Berk's (1998) categories of private speech to read and was then given un-coded data, recorded observations of private speech to identify in terms of categories. These were then compared with coded data.

There were initially some challenges in coding. For example, when a child's private speech was clearly repetitive but also fantasy play, this was discussed and a decision made on the most appropriate category. Further, when it was obvious that singing formed a considerable part of one child's private speech and was also evident in a few children's utterances, we decided to include singing as a separate category.

The reviewer worked through ten per cent of the written data, as well as the private speech in the video. The reviewer and researcher worked through a process of developing consensus in coding the data, which was then applied to the coding of the data according to these categories.

4.17.7 Triangulation.

The video-recordings, transcriptions of children's speech, the observations of children by both the researcher and one teacher in kindergarten two, as well as the interviews with parents and teachers, served to widen the scope of this research and to some extent (although not in every aspect) strengthened the reliability of the data collected. Further, the coding by the reviewer clarified the

choice of the coding of private speech according to categories, based on words used and context and function.

4.17.8 Individual children.

To do justice to acknowledging the personalities, the dispositions and the holistic development of the children in the case studies would require extensive observation of their play and their interactions with other children and adults. This falls outside the scope of this study. As the participant observer in the kindergarten I was however able to gain a sense of each of these children in a holistic sense and to have some understanding of their personalities and dispositions but these are based on snapshot observations and a connection with these children that was made in those moments of observing. This research focusses on the private speech of these children and although the anecdotal observations may provide some insight into their characters, these cannot cover the extent of who they are. However, in acknowledging the individual children, an attempt will be made to portray a sense of who they are through their private speech.

It is an acknowledged feature of early childhood rhetoric that children cannot be viewed in terms of one aspect of their being. In the results presented there should be aspects which contribute to a picture of who each child is within their families as well as within a holistic sense of their development. Through the interviews with the parents and the teachers some sense of the bigger picture of the people who are a significant part of their lives is included. In chapter five, as their private speech is discussed, an insight into their wider experiences will be presented to augment that knowledge further.

4.18 Limitations and key assumptions.

The limitations in this study are firstly in the size of the sample. Only four children in each of two centres were studied. Three teachers in kindergarten one and two teachers in kindergarten two contributed, as well as the parents of the children. The study is therefore limited and no generalisations can be made about the practice and experiences of other children, teachers, parents and *whānau*. However, both in kindergartens one and two the research was carried out over a substantial period and provides valuable insight into the experiences of these children and their parents and teachers. It is intended that the evidence of the experiences will assist early childhood teachers in understanding the phenomenon of private speech particularly for children who speak languages other than English.

The collection, transcription and analysis of observations and recorded conversations - which form a significant part of the study - was time-consuming. This is a factor which had been taken into account in the planning and adequate time allocated to achieve this successfully. Further, there was a reliance on support from participants. This reliance was on all participants, children and parents, but particularly on the support and commitment of the teachers in the centre. They were required to add written information about the language use of the children in the study. This proved to be difficult. In kindergarten one, the teachers did not contribute any observations of private speech and in kindergarten two only one teacher wrote observations of private speech.

There were also financial demands in terms of video equipment required to record language. Video-recording was limited to one camera. Having several video cameras around the centres would have provided greater opportunities to view children's private speech although this would have raised issues about how invasive this method would be for teachers, parents and the children and would

not have been possible in kindergarten one where the parents of two children explicitly required that their children were not to be recorded on video even incidentally. However, in K2, using the video camera was facilitated by the fact that the children saw it on a daily basis rather than weekly as in K1 and therefore it was less novel and less interesting. Also, the researcher purchased a smaller video camera and was able to use this more effectively in K2 by placing the video camera on her knee or alongside her when appropriate. This made the video camera less obvious and less obtrusive.

This study was based on a small-scale, case study research of four children, in each of two kindergartens in Auckland. The restricted size of the study limits how the data obtained can be interpreted. The interpretations are based on descriptive statistics which are interpreted according to categories and occurrences. Analysis focusses on sharing the stories of the experiences documented there. As discussed by Guba and Lincoln (1999) generalisations cannot be made from these studies but they provide valuable insight into the observed private speech of these eight children in kindergarten.

4.19 Summary

This research is based firmly on the notion that language is a cultural, social and cognitive resource (McKay & Wong, 1988; Skutnabb-Kangas, 2000). This study provides some insight into the experiences of the children, their parents and the teachers in the study. What the study does not show is the full extent of the day to day experiences of the child and the full spectrum of the child's social, emotional, intellectual, spiritual, physical, cultural and linguistic experiences. Instead this is a sample, from a designated period in time, which, whilst acknowledging the holistic experience and context of the child, focusses on the child's language experience, particularly that of private speech, in the

context of the socio-cultural-linguistic world of the early childhood centre. This study will be used as a starting point for further ways to approach the use of private speech in early childhood, within the growing issue of balancing bilingualism in early childhood education.

Chapter Five

Results of the research

5.1 Introduction

Although there have been studies on private speech in the compulsory phase of schooling (Alton-Lee et al., 1993; Barnard, 2003) this study appears to be the first investigation into private speech in early childhood education in *Aotearoa* New Zealand. The purpose of this research was to examine the use of private speech by children from diverse language backgrounds in early childhood education, specifically, in two English-medium kindergartens in the Auckland region.

While the target question of this research is the use of private speech, the significant issues which are relevant include issues relating to wider context, namely the kindergarten context, the backgrounds of the children and their dispositions and relationships. The private speech of these children emerged within the community of the kindergarten within layers of interactions, expectations of behaviour and relationships.

This research study explored the private speech of children from diverse language backgrounds in English language kindergartens. Based on Vygotsky's research, which noted that the tendency is for children in foreign language environments or in environments where they realize that they will not be understood, to be silent, there was a possibility that children would not use private speech or use little private speech. However, the expectation was that in environments such as kindergartens, where the principles and strands of *Te Whāriki* form the basis for relationships and practice, and children and their families should experience a strong sense of welcoming, these children would

use private speech in their own language. The surprising result for me was that in both kindergartens, the use of private speech was in English. This raised questions about what the child was experiencing in the kindergartens. It is noted that the kindergartens philosophically practiced a commitment to bicultural and multicultural practice in accordance with the Treaty of Waitangi and with *Te Whāriki*, and embraced the many cultures and languages of the children and their families in a number of ways (as identified by teachers in the interviews). While the contexts were bicultural and multicultural in their philosophy, the language that pervaded the culture in both kindergartens was English.

This research did not identify the full sum of the child's speech and therefore a comparison cannot be made between the extent of the child's social speech and the extent of the child's private speech. In Piaget's study of the social and private speech of two boys aged 6 1/2 years, he identified that egocentric speech accounted for 43 – 47 per cent of their spontaneous language in the classroom while engaged in 'free play' activities (Diaz & Berk, 1992, p. 19). Also, in the discussion in Berk (1994) she noted that 20 to 60 per cent of the child's speech is private speech. In the observations of David, one of the children in this research study, private speech seemed to form the majority of his speech. He had not developed any particular friendships and the predominance of his private speech is remarkable in comparison to what was observed of his social speech. Thus from this example, private speech may form a significant part of a child's language.

5.2 Process

The categories used to analyse and code the private speech were based on Krafft & Berk's (1998) categories which were discussed in chapters three and four.

Adding to contextual factors the overall peer involvement, adult presence and an overview of the goal of the activities (Kirby, 1997) in which the children were engaged, are included in the discussion of the findings.

As discussed earlier, what became evident as the utterances were clarified was that the occurrences of private speech did not always fit neatly into the categories. For example, one of the areas that confronted us (myself and the reviewer) was that singing featured regularly, often combining word play and repetition with melody. While there is a category of 'other' the singing was a regular and significant category in its own right. Singing was acknowledged briefly in Saville-Troike's example of the hierarchical nature of private speech categories. In Saville-Troike's hierarchy singing was positioned in the lowest category as self-stimulating (Saville-Troike, 1988).

The examples given in Krafft & Berk's (1998) categories are brief and did not cover the extent of the private speech utterances in the children in the case studies. This meant that there had to be discussion between the researcher and the reviewer to clarify the categories. The context and purpose of the speech became a critical factor in identifying the category and the categories of private speech had to be discussed so that there was consistency in analysis and understanding. The number of occurrences of singing or humming was significant enough for the reviewer and myself to decide to include that as an additional category.

Thus the range of categories of coded utterances was increased because prevalence of the occurrence of singing and humming in the research.

While it was essential to consider if the child was engaging in social speech and therefore not private speech, it was also essential to consider how the speech was being used. Because the categories of private speech are not mutually exclusive

an important aspect that was critical to determining the category of each specific incident of private speech was the function and context of the speech. For example if the child was physically and mentally counting objects this could be considered descriptive/self-guidance. If he was merely reciting numbers without any noticeable reference to his play, this was described as word-play. With fantasy play, if the sound effects were part of the imaginative play then this was categorised as fantasy play, whereas if the sounds made were not associated with fantasy play these were categorised as word play.

What also became apparent is the relationship between categories so that they are not necessarily discrete. In the example where a child is telling a story, the language used both guides the story and describes the thought process while also playing with words and showing the use of repetition and rhyme. Analysing the data according to categories is useful in that it makes the data more manageable but on the other hand it can diminish the richness of thought and language that the child's private speech encompasses.

In presenting the data in this thesis, the incidence of private speech will be presented and the context discussed if there was a response to the private speech in any way. Therefore, if the people present do not contribute or influence the children and their private speech in a noticeable way, these will not be included in the discussion. The researcher was present for the majority of private speech occurrences and therefore there was a social element attached to all utterances.

While the focus is on the private speech of the children, there are factors which add to the understanding of the individual differences in the use of private speech. These include the personality and disposition of the child and the social relationships that were evident in their play played a role in their private speech. It is difficult to determine specifically what role, but acknowledgement of these aspects will be referred to in the analysis.

This chapter presents the findings from the research in kindergartens one and two. The contexts of these kindergartens are described in chapter four. Each was a sessional public kindergarten and was decile one (this describes the identified level of need for financial support which would be highest at decile one) and had an enrolment of children from diverse cultural and linguistic backgrounds. Chapter four provides more detailed information about the kindergartens and chapters six and seven provide further analysis and discussion of the results.

5.3 Results from Kindergarten one (K1).

The study in kindergarten one is described in this section. The discussion addresses the cultural and linguistic context of the kindergarten, the background of each child, and the details of their private speech.

5.3.1 Observations of language at kindergarten one.

The private speech of each child was recorded. As mentioned previously, the researcher attempted to remain unobtrusive as far as possible. The observations of private speech are taken from observations recorded in a notebook under the headings on the private speech form as well as from the video recordings. These have been collated and analysed and are presented in Table 5.5. on page 143.

The surprising finding which was sustained throughout the research period was that all private speech observed in K1 was in English and not in Samoan. Discussion with the teachers confirmed that the children tended not to use their own language during the kindergarten session. The only time that one of the teachers had noticed children speaking Samoan during any session was on one occasion when she was getting equipment out of the shed, out of sight of the

children but within ear-shot. She had overheard a couple of children talking to each other in Samoan but when she emerged from the shed, the children instantly reverted to English. These children were choosing to speak English rather than Samoan in the presence of a teacher. The teachers said that they were concerned that the children generally only spoke English at kindergarten and had made efforts to encourage the use of their heritage language. Some strategies included using some Samoan words and phrases when speaking to the children, and asking children to translate English words into Samoan. They also encouraged visitors or guests, such as student teachers fluent in Samoan, to converse with the children in Samoan but the prevailing trend was for children to use English.

It has been noted that the video recording of children was not successful in terms of recording private speech. In kindergarten one no private speech was recorded on video. The observations of private speech were documented by the researcher taking notes as unobtrusively as possible within seeing and hearing distance of the children being observed.

5.3.2 Background and details of the utterances of private speech of children in kindergarten one.

Examples of the individual occurrences of private speech will be discussed in the following pages. They reflect the individual differences in the utterances of private speech of the four children in kindergarten one while also establishing an overall picture of the occurrence of private speech in these children which were observed during the twenty-six hours, conducted within a period of two months of observation time spent in K1.

5.3.2.1 Tana: Context of culture and language and incidence of private speech

Tana is a male, he was aged four years and eight months in August 2003. His language and cultural background is Samoan.

An interview with Tana's mother confirmed that the language spoken at home was Samoan and that the language of their community was Samoan. However, Tana was exposed to English through the local community and the media, particularly television. Tana would attend the local private school. Comments on the private speech used at home were that Tana's mother had not noticed him talking to himself.

Tana's play interests that were observed during the research period included sand play, water play, climbing, block play, building puzzles, constructing with construction toys and participating in music and stories. He had a sense of humour and enjoyed social relationships that were based on reciprocity. He enjoyed physical play, construction and working on closed tasks like puzzles.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	singing	Other	Total
Tana:	1	1	0	7	1	1	0	11

Table 5.1. Incidence of Private speech. Tana

The breakdown of Tana's observed private speech is described in Table 5.1. Clearly the private speech is highest in self-guidance and descriptive.

Tana spent much of his play time outdoors and some of these examples occur in the sandpit.

i) Affect:

His affective speech was in "*Cool! Cool!*" as he seemed to be impressed with the result of seeing water pour through the water wheel.³

ii) Word play and repetition:

Tana said *yeh yeh yeh yeh* which proved to be the catalyst for the *da da da da* which evolved into a shared song with a boy at the water trough.

iii) Fantasy play:

No utterances observed.

iv) Self-guidance/descriptive:

Playing in the sandpit with a couple of other children present who were engrossed in their own play, Tana said to himself:

I got yellow, yellow, yellow

He was looking down at the yellow sandpit toys that he had collected. He then later said, *I've got 1, 2, 3, 5.*

One of the boys (Ken) in the sandpit then appeared to be interested in Tana's talk and what he was doing and Ken responded. Ken seemed to have estimated (without physically counting the toys) and realised that Tana did not have five. He said: *You've got four!* This was the beginning of a long period of play together where the game centred around collecting toys and grouping them according to colour. The two boys

³ Affect is also referred to as *affect expression* and *affective* in this thesis.

played co-operatively together working on number, classification and on learning skills. In this incident, private speech led to sustained social play.

In expressing *I did it!* after building a tower with blocks he affirmed his success and effectively guided the process of his play. On a separate occasion, building a puzzle, he guided his actions by saying, *I know where this goes.*

Another example of private speech (referred to in category (i) affective) was in Tana's *wooo - wet and wet* as he poured water through a water wheel. Categorising this as descriptive rather than affective, although it has an affective component, is based on the way that this speech guided his behaviour. Rather than it being purely an emotional response, the speech was about what was happening. He expressed a descriptive (and emotional) response to the water as in *Ohhh - uhh- cold! Uh uh uh cold!*, dancing around as he said it.

v) Inaudible uttering:

In this instance Tana's private speech was not audible.

vi) Singing/humming:

In the private speech which consisted of singing, a number of factors were at play. These included Tana's experimentation with rhythm in the *da da da da*. It featured him repeating another child's music sounds and concluded in their sharing of the singing and therefore in the private speech moving to a significantly social interaction. They sang the sounds together without any discussion, singing with obvious enjoyment visible in their facial expressions.

vii) Other:

There were no utterances observed in this category.

Summing up:

Tana's use of private speech was intricately linked to his play. He played independently for much of the time but was clearly open to social interactions as seen in his private speech in the sandpit and at the water trough.

5.3.2.2 Lilian: Context of culture and language and incidence of private speech

Lilian is female. Her age in August 2003 was 4 years 6 months.

Her language and cultural background is Samoan.

An interview with Lilian's mother indicated that her home language was predominantly Samoan. This was in the home and in the community including the Church. Lilian's mother, who was born in *Aotearoa* New Zealand, indicated that she was committed to maintaining her family's Samoan heritage. Her parents (Lilian's grandparents) had returned to Samoa. Lilian's mother was concerned that Lilian would lose her Samoan language and was doing all she could to ensure that her heritage language would be maintained. The fact that Lilian's uncles who were both born in New Zealand could not speak Samoan was of real concern to Lilian's mother.

Lilian would attend the bilingual class at a local school so that she would be educated in her own language and in English.

According to Lilian's mother Lilian used private speech when she talked to her toys and also when she was in the bathroom. The language she used for this private speech and all other communication at home was Samoan.

Lilian was experiencing health problems during the research period and was away for much of the time. On the days that she was there, she was relatively reserved and serious but initiated social conversation with children and teachers. She asked me, *Do you come to my church? If you do then you can speak to me.* (I interpreted this to mean if I saw her in church).

She spent time in the art area, made up puzzles, played outdoors and spent a significant amount of time in the family corner. I had expected these periods to yield significant amounts of private speech but there was more social speech.

Table 5.2 shows the recorded observations of private speech by Lilian.

Name and number of utterances:	Affect	Word play and repet.	Fantasy play	Self-guidance and descriptive	Inaud. Uttering	Singing	Other	Total
Lilian:	0	0	3	3	0	0	0	6

Table 5.2. Incidence of private speech: Lilian

The breakdown of Lilian's observed private speech is represented in Table 5.2.

i. Affect:

There were no observations of utterances in this category.

ii. Word play and repetition:

There were no observations of utterances in this category.

iii. Fantasy play:

As imaginative play, particularly in the family corner, featured regularly in Lilian's play, it could be expected that she would use private speech in her fantasy play. However, the examples of fantasy play private speech that I witnessed included only, *Yummy dinner huh?* to the doll that she was feeding and in the *Ready! Then Muffins!* as she removed an empty tray from the play oven.

iv. Self-guidance/descriptive:

Her self-guidance speech included a comment (not addressed to anyone), *I want to build something with these blocks* when she saw a pile of blocks. Also when she started to do a puzzle she reassured herself with, *I can do this*.

In another instance she expressed out loud, *I don't know when my daddy's coming*. Although I was within hearing distance, she did not make any eye contact with me or the other people in the room but looked down as she said this. She then moved away without seeking any acknowledgement of this statement. This private speech utterance has been categorized as self guidance as it seems that Lilian tried to work through an understanding of when her father would be coming to fetch her.

v. Inaudible uttering:

There were no instances in this category.

vi. Singing/humming:

There were no observations of utterances in this category.

vii. Other:

There were no observations of utterances in this category.

Summing up:

Lilian's use of private speech was minimal. This may be partly due to her frequent absences due to ill health during the period of the research but it may also be an indication that she does not use private speech much at this stage in her development in the context of the kindergarten. She has equal frequencies of self-regulation/descriptive and fantasy play private speech.

5.3.2.3 Jimi: Context of culture and language and incidence of private speech

Jimi is male and in August 2003 was 4 years and 9 months. His language and cultural background is Samoan.

I was not able to interview Jimi's parents. I arranged a time for the full interview but Jimi's father was not able to attend. Because of my work schedule we were regrettably not able to schedule another time. However, discussions with the teachers indicated that their understanding, based on communication with the parents, was that Samoan was used predominantly at home.

Jimi spent time both indoors and out. He tended to spend short periods with resources and his play tended to be experimental rather than sustained. As he was fairly new to the kindergarten and had apparently also not been attending regularly, the equipment may have been novel and he was exploring the range rather than exploring the extent to which he could use it. His interactions with

other children showed little use of language. He was silent much of the time that I observed his play.

He had established strong bonds with the teachers and interacted with them in meaningful ways such as helping to do some weeding with one teacher and sharing his portfolio with another.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	singing	Other	Total
Jimi:	0	0	1	4	0	0	0	5

Table 5.3. Incidence of private speech: Jimi

The breakdown of Jimi's use of private speech observed is represented in Table 5.3.

Jimi had not been attending the kindergarten regularly and the environment was fairly new to him. His use of private and social speech appeared to be limited. I observed very little verbal communication between him and the teachers and other children. He was also inclined to shout when he wanted someone's attention. Interestingly, on one occasion when he wanted to speak to a teacher outdoors he sang her name several times in the same two-note melody.

Although he frequently interrupted children's play by breaking their constructions or removing something (for example, a pram) that they were using, he seemed to enjoy relationships with some of the children. On one occasion I noticed that he and a girl were quite happy to be pushing prams with dolls safely

installed, together. I could unfortunately not hear their conversation nor in fact see whether they were communicating verbally.

i) Affect:

There were no observations of utterances in this category.

ii) Word play and repetition:

There were no observations of utterances in this category.

iii) Fantasy play:

He made motor noises (*brmm brmm*) as he played with a car.

iv) Self-guidance/descriptive:

One observation supports the idea that Jimi was finding his way through the kindergarten social environment and its rules. An example of this was when he was sitting on his own at the morning tea table. He had his back to me and was obviously unaware that I was sitting at the table behind him. When he had finished eating his sandwich he said, *I'm finished*. After a while he turned around and saw me and repeated, *I'm finished* and then left the table. It appears that he was seeking permission to leave the table which was expressed through self-guidance in deciding whether he was allowed to leave the table.

Jimi's use of private speech in different contexts and on different occasions, included making car sound effects, guiding his play and describing his activity. As he did a puzzle he said, *look at this* but did not engage with anyone as he said this either before, during or after the utterance.

He also declared to no-one as he left the family corner area, *I'm going to teacher Anne.*

On another occasion as he stood waiting for children to go down the slide he said quietly *hurry up* but did not look at any of the children either before or after he had said this.

v) **Inaudible uttering:**

There were no instances in this category.

vi) **Singing/humming:**

There were no observations of utterances in this category.

vii) **Other:**

There were no observations of utterances in this category.

Summing up:

In observations of Jimi's play he did not seem to use much language to interact with his peers.

5.3.2.4 Elizabeth: Context of culture and language and incidence of private speech

Elizabeth is female and in August 2003 was 4 years and 3 months.

Her language and cultural background is Samoan.

Elizabeth spoke some Samoan at home but she had family, including aunts whom she saw regularly, who did not speak Samoan. English had become their

main form of communication outside the home. They attended a Samoan church but their community language in terms of shopping, family and friends, was English. Elizabeth had a cousin who attended the kindergarten with her. He is Indian and spoke an Indian language. Their communication with each other was only in English. It was expected that she would attend the English class at the local primary school.

Elizabeth's mother had not noticed her talking to herself.

Elizabeth spent much of her time at kindergarten with her cousin. She shared play experiences with him in all the areas of the kindergarten. On one occasion she was the only girl out of six children who were dismantling a discarded, broken video recorder. She spent much of this time holding the screwdriver for her cousin!

A telling incident with regards to the relationship which was being played out between Elizabeth and her cousin was the response and following interaction when Elizabeth presented him with a cup of sand in the sandpit. He looked at it then said, *You made me tea. I want coffee!* He then proceeded to throw the sand in the sandpit and handed Elizabeth the cup. She then filled the cup with sand again and gave it back to him. He seemed to be happy with this second cup and Elizabeth appeared to be satisfied that she had managed the interaction satisfactorily. While this is not an incident of private speech it is significant in terms of the roles being played out in this scenario and poses questions about what these roles suggest about each of these children's places in their family/community.

Elizabeth did not talk much, even to her cousin, and seemed to watch what was happening around her while she was busy with whatever she was doing. She

laughed easily though and had brief interludes with other children in between playing with her cousin.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	Singing	Other	Total
Elizabeth:	0	0	0	2	0	1	0	3

Table 5.4. Incidence of private speech: Elizabeth

The breakdown of Elizabeth's observed use of private speech is represented in Table 5.4. There are minimal utterances of private speech, two of the three being self-guidance/descriptive and one of singing.

In the time that I spent at the kindergarten, Elizabeth was rarely without her cousin. He initiated games for her, fussed over her and fetched resources for her. They seemed to be totally engrossed in each other's company.

i. Affect:

There were no observations of utterances in this category.

ii. Word play and repetition:

There were no observations of utterances in this category.

iii. Fantasy play:

There were no observations of utterances in this category.

iv. Self-guidance/descriptive:

The example of descriptive private speech was in *I'm writing my name* as she wrote her name at the drawing table. Also in disclosing that she had found a rock in the sand, this first was social and then when it was ignored, turned to private speech. The phrase *I found a rock* was said quietly as she looked down.

v. Inaudible uttering:

There were no instances in this category.

vi. Singing/humming:

She sang to herself, *I'm making castle* as she did just that in the sandpit.

vii. Other:

There were no observations of utterances in this category.

Summing up:

Elizabeth had a constant companion and in terms of the attentiveness of her cousin and constant closeness it could be suggested that he served as her alter ego. This is however conjecture but I have rarely seen two children so committed to each other in their demeanour and in their play.

5.4 Summary of research in kindergarten one.

Figure 5.1. summarises the extent of occurrences of private speech by the children in kindergarten one. This summary shows the predominance of descriptive or self-guidance private speech and supports the research that this

private speech is used by young children to support their learning and development.

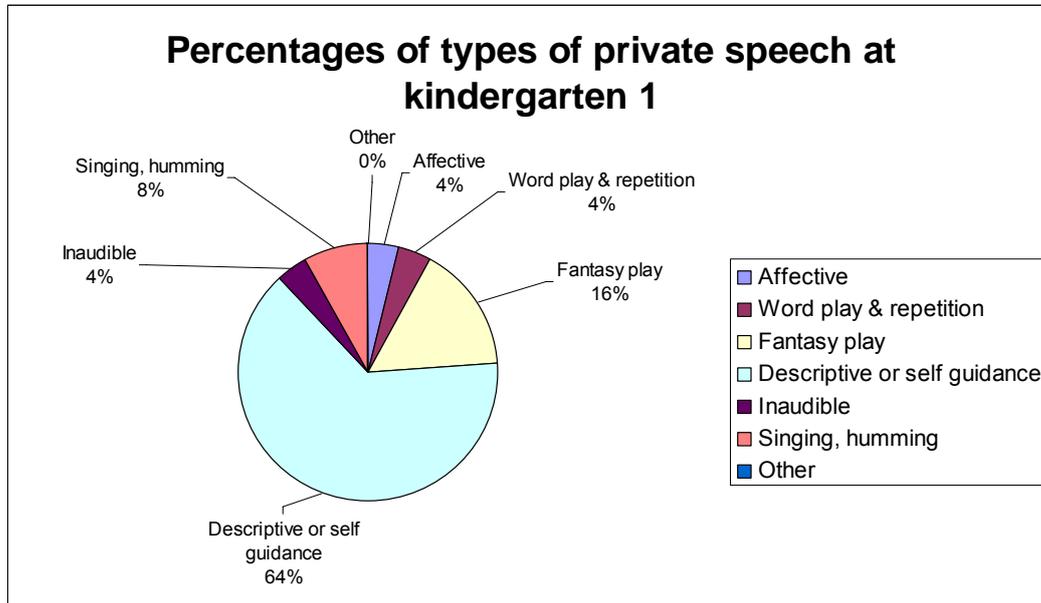


Figure 5.1 Types of private speech evident in kindergarten one.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	Singing	Other	Total
Tana:	1	1	0	7	1	1	0	11
Lilian:	0	0	3	3	0	0	0	6
Jimi:	0	0	1	4	0	0	0	5
Elizabeth:	0	0	0	2	0	1	0	3
Total	1	1	4	16	1	2	0	25

Table 5.5. Analysis of utterances of private speech of children in kindergarten one.

Table 5.5 shows the actual number of utterances of private speech of the children in kindergarten one. These utterances have been discussed in detail in this chapter. In general there is a low frequency of utterances of private speech during the twenty six hours of observation time that I spent at the kindergarten. The highest category is that of self-guidance/descriptive used during play. This would concur with the research of Winsler, Diaz & Montero who found that preschoolers use private speech for self-regulation (self-guidance) during problem-solving (Winsler et al., 1997).

5.4.1 Peer involvement in play

The types of social play described by Parten (1932, cited in Kirby, 1997) were used to define the types of play that the children were engaged in while using private speech. It was found that their play episodes were predominantly in the category of solitary or parallel play. Rather than the number of utterances being relevant here it is the social context of play in which the child was engaged during that particular sequence of private speech recorded that has been counted. The sequence was not a single utterance rather a sequence of sometimes several utterances in a single play episode or cycle. The peer involvement in that space of time was noted and these have been collated in the chart. An example of cooperative play was demonstrated when Tana, in the incident where he started singing alone, was joined by another boy and together they engaged in a brief song.

The results of this analysis are illustrated in Figure 5.2 below:

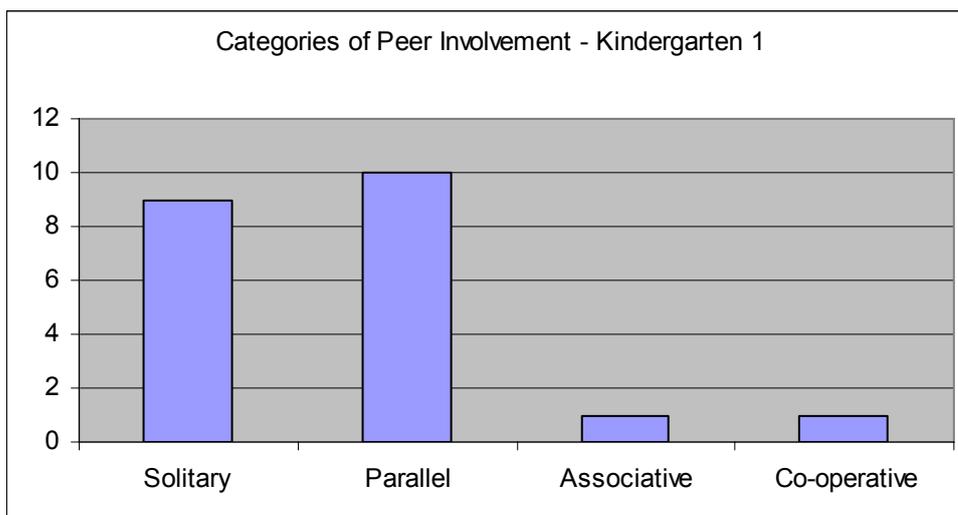


Figure 5.2. Categories of sequences of peer involvement in kindergarten one.

5.4.2 The role of the adult

Another dimension of the context of private speech is the proximity and involvement of the adult. According to the categories used by Kirby (1997, p. 6) based on Berk & Garvin's categories (1984) which are that the teacher or adult may be either *directly involved* or a *watcher-helper* or *uninvolved*.

As I was close to the child being observed for most of the interactions (except for those that were categorised as inaudible), and would have been available to assist the child if they chose to ask for help, the category that fitted most of the private speech contexts is the second one, *watcher-helper*. However, the teachers in the kindergarten were not in this category in relation to the children in these observations, rather in the observations of the occurrences of private speech the teachers were generally in the category of *uninvolved* in relation to these children whereas they were likely to be either *directly involved* or a *watcher-helper* in relation to other children in the kindergarten (Berk & Garvin, 1984, in Kirby, 1997, p. 6).

5.4.3 Goal/types of tasks: open or closed

Another aspect critical to the observations of private speech is whether these occurred in open-ended or closed activities or tasks. Overwhelmingly in K1 the majority of the contexts of the activities or tasks in which the private speech utterances were recorded were in open-ended circumstances. An overall assessment of the types of tasks/activities showed that twenty per cent of the utterances occurred in closed tasks and eighty per cent occurred in open-ended tasks. This loosely supports the hypothesis of Krafft & Berk (1998) that private speech is more likely to occur in open-ended tasks than in closed.

5.5 Results from Kindergarten two.

This was an intensive study of more than three weeks, effectively forty six hours, in this kindergarten. It involved both video recording and observations of children's private speech and also interviews with teachers and parents.

In this kindergarten a significant proportion of cultures represented are cultures from the Pacific Islands (36.7%) as illustrated in Figure 4.2 on page 102. As mentioned previously, while there is often a sense projected in the media of a Pasifika culture, each has a culture and language of its own and should ideally be acknowledged specifically.

The diversity in the kindergarten is represented in twelve languages and cultures.

5.5.1 Observations of language at kindergarten two.

The private speech of each child was recorded. As mentioned previously, the researcher attempted to remain unobtrusive as far as possible. The observations of private speech are taken from observations recorded in a notebook under the headings on the private speech form (appendix three) as well as from the video recordings. These have been collated and analysed and are presented in Table 5.10 on page 166.

As was experienced in K1, the surprising finding which was sustained throughout the research period was that all private speech observed in K2 was in English and not in each child's home language. Discussion with the teachers confirmed that the children tended not to use their own language during the kindergarten session.

The video recorder used in K2 elicited some utterances of private speech. The video camera was used in two ways, at times set up as a stationary tool to record utterances as they occurred in different spaces such as the family corner or block play area and secondly used manually by the researcher. In the first instance the camera was left unsupervised to record whatever happened. This resulted in minimal recordings of private speech. In the second instance the video recorder was used as a hand-held tool, often placed unobtrusively on the researcher's knee, or held by hand or placed to one side. There were more utterances of private speech recorded from this second method, one example being the lengthy recording of Selena's singing. Observations of private speech were further documented by the researcher taking notes as unobtrusively as possible within seeing and hearing distance of the children being observed. The note-taking method proved to be the most effective.

5.5.2 Background and details of the utterances of private speech of children in kindergarten two.

These are discussed below for each child.

5.5.2.1 Selena: Context of culture and language and incidence of private speech

Selena is female and in May 2004 was four years and six months. Her cultural and linguistic background is Samoan.

An interview with Selena's mother identified that Samoan was the language spoken mostly at home although English is used in reading stories, and the children were exposed to English through TV. Selena also spoke some English to her older sister.

Mostly Samoan was spoken in the community of church and friends.

Selena's mother expected that English would become the dominant language although Selena identified with being Samoan. She spoke Samoan on the phone to her grandparents who lived in Samoa.

When her cousin visited she told him to talk Samoan. He was newly arrived in New Zealand and his English was not good so Selena told him to speak Samoan much to the amusement of her Mum.

In terms of private speech, Selena sang to herself frequently at home, both in Samoan and in English.

Selena showed outstanding interest in melody. Selena's singing and humming were outstanding features within her play. As mentioned previously, the

numerical measurement of her singing and humming do not fully describe the extent to which this was a part of her being.

She spent some time playing with her friends, particularly children who were also Samoan. She also chose to play in the art area, family corner and block play area frequently.

Table 5.6 summarises the recorded observations of Selena’s private speech.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	singing	Other	Total
Selena:	0	0	1	3	0	10	0	14

Table 5.6. Incidence of private speech: Selena

i) Affect:

There were no observations of utterances in this category.

ii) Word play and repetition:

There were no observations of utterances in this category.

iii) Fantasy play:

Selena said, *hello* as she talked on the pretend phone

iv) Self-guidance/descriptive:

There is minimal use of private speech for self guidance, for word play and affect or fantasy play. *Where's my.... ?* to herself outdoors (the

teacher couldn't hear the end of the question). Selena repeated the words from the story during the story being told at mat-time, *I'm much too... too wiggly* in what seemed to be her way of describing the critical elements of the story to herself.

She also said, *I want some painting* as she readied herself to paint at the easel.

In the long session with the imaginative play with sand for cooking, I did not hear any private speech that was fantasy or self guidance or descriptive. She seemed to be totally engrossed in the activity and the humming seemed to be an extension of a relaxed process.

v) **Inaudible uttering:**

There were no instances in this category.

vi) **Singing/humming:**

The consistency of the observations supports the finding that Selena sang frequently. The consistent pattern of the melody when she sang for an extended period outdoors was using the notes from middle C to A in melodic patterns as described below:

C C G A G,

C C G A G E,

C C G A G F,

C C G A G F

As was observed by her mother at home, Selena also sang to herself frequently at kindergarten. One observation in the research showed Selena humming for a significant part of a period of 30 minutes as she

played with sand, in the process of 'cooking'. This was coded as one example of humming but it is an extended period that could arguably have been divided into numerous examples. Selena was playing on her own for most of this time with interludes of Ariel (also represented in the research) involving herself in this game a couple of times but with minimal response from Selena. She was totally immersed in what she was doing and almost ignored Ariel's approaches.

A teacher also recorded an observation of her humming to herself outdoors. On another occasion I observed her singing to herself while playing the piano. Also, on a day when she was painting at the easel, she started singing with full voice when she heard the ABC song being played and also sang to this when she was at the computer. She made up a song using her friend's name and played with the syllables in the word rhythmically.

vii) Other:

There were no observations of utterances in this category.

Summing up:

This natural singing suggests that music was part of Selena's cognitive pattern. In recognising that private speech can inform teachers of children's thoughts abilities and interests this is an example of how a child's private speech can be a signal of an interest. In Selena's example, her affinity to music provides teachers and parents with an opportunity to extend this musicality through extensions that are culturally appropriate and meaningful.

5.5.2.2 Arial: Context of culture and language and incidence of private speech

Arial is female and her age in May, 2004 was 4 years and nine months. Her culture and language background is the Philippines.

An interview with Arial's father revealed that the language spoken at home was Filipino. When they went to church the language was mixed English and Filipino as the second language in the Philippines is English. Their friends were Filipino.

When they went out shopping and to cultural events they spoke both English and Filipino. At home they used English for command words such as *sit down* or *open the door*. Perhaps the intention here is more about getting the child's attention than about encouraging bilingualism.

Arial would attend an English medium school and her father expected that she would be fluent in both English and Filipino. He acknowledged that many immigrants from the Philippines lose their language and he was committed to maintaining this language and deliberately used Filipino predominantly.

Arial's father had noticed her using some private speech, particularly that she imitated the words from DVDs (such as Disney movies) and she also sang to herself in English.

Arial's friendship with a Chinese girl, Lily, who had limited English, was particularly interesting. They had formed a strong friendship and seemed to be completely happy in each other's company. They both used soft voices when speaking and I was not able to hear their words but their communication was in English, limited as that was particularly for Lily (whose grandfather stayed at

kindergarten throughout each session but did not interact with her until home time).

Arial spent some time at the computer daily. She also favoured the family corner and art areas and spent time in the sandpit and in the block play area.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	singing	Other	Total
Arial:	0	1	1	5	0	1	0	8

Table 5.7. Incidence of private speech: Arial

The dominant use of private speech for Arial was in self guidance or descriptive speech as highlighted in Table 5.7.

i) Affect:

There were no observations of utterances in this category.

ii) Word play and repetition:

Arial counted aloud repeating the counting *one, two, three, four* that she heard recited by children in the other end of the room

iii) Fantasy play:

She said *delicious dinner* when she produced something with sand.

iv) Self-guidance/descriptive:

She used *that's my name* when she saw an *A* on the computer screen.

She declared *that's mine* about a toy that she had just been playing with when another child picked it up. This was said as a statement and there was no eye contact, nor was the statement followed by any action. Also when working with a construction game, she said to no-one at first *I can't fix them* then after a pause of about 20 seconds as she tried the game again and then looked at me and repeated *I can't fix them* at which point I assisted her.

When she was writing her name she said, *I know my name. I write it my name.*

v) Inaudible uttering:

There were no instances in this category.

vi) Singing/humming:

She sang to herself as she put her painting away.

vii) Other:

There were no observations of utterances in this category.

Summing up:

Arial and her friend, Lily, spent much of their time at kindergarten together. (In the example cited previously of Arial interacting with Selena, Lily was away from kindergarten). Arial and Lily conversed with each other in short phrases, used body language to convey meaning at times and were, it seemed, connected by a strong bond.

From my observations, Arial used little private speech.

5.5.2.3 Behnaz: Context of culture and language and incidence of private speech

Behnaz is female and her age in May, 2004 was four years and two months. Her cultural background is Afghanistan and her language is Farsi.

In an interview with Behnaz's father, he indicated that she spoke mostly Farsi at home as her mother could not speak much English yet, although she was attending English classes to learn. Behnaz's father spoke English fluently but the language in the home and in their social community was Farsi.

He said that he expected that Behnaz would be fluent in both English and Farsi through her lifetime.

Her older sisters read stories to her in English and Behnaz and the sisters regularly spoke to each other in English at home.

He had not noticed her talking to herself. She had sisters and they communicated with each other and he felt that there was no need for her to talk to herself.

Behnaz appeared to be confident and eager to explore and work through the curriculum. She had formed friendships, and moved in and out of play with or without friends easily. She appeared to be equally happy playing on her own as she was playing with friends.

She spent sustained periods in the art area, family corner and block play area particularly but also engaged in imaginative play outdoors.

Table 5.8 summarises the extent of Behnaz's observed use of private speech.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	singing	Other	Total
Behnaz	1	13	23	14	3	6	0	60

Table 5.8. Incidence of private speech: Behnaz

i) Affect:

Ooooh expressed as a sense of satisfaction when building with blocks.

ii) Word play and repetition:

Further observations included naming objects as another aspect of Behnaz's private speech. This was categorised as word play but could just as well be described as 'naming objects'. Examples of this are in *a fish* as she identified a fish in a puzzle or in *chalky chalky* when she picked up a piece of chalk and *brmm brmm, took a took* as she played with the train set. Word play is evident in her *doo doo doo; woohooohoo; horsey, horsey, horsey* as she moved from playing with cars to playing with a plastic horse. Her sound effects in *tsh tsh; gooo; gggggg; jjjjjjjj; dush dush dush; car car car; psh psh; gggggg; oh oh oh* as she played with lego could have been made by a child of virtually any language background.

iii) Fantasy play:

At kindergarten Behnaz used private speech in a number of ways but particularly in fantasy play and in self guidance and describing what she

is doing. Her private speech through telling a story, without an audience, was particularly indicative of her processing the language, the story line and sequence of events. It was filled with phrases that show an understanding of the story although she did not relate the story in linked sentences. In this particularly rich example of private speech, in which Behnaz talked through a story, she had her back to me and to the children who were in the area. I had to listen very carefully to hear what she was saying. She used magnetic pictures from the story of Goldilocks and the Three Bears to work through the story.

Examples of the phrases she used are:

That's too big

Walking walking walking

Where's the baby?

Where (sic) the mother one?

Where's the mother one?

We're going

We're out of bed

All the baby's porridge

The mother has the ...oops (a picture fell off the board)

Put it in the bed bed bed

Put it on the table table table

Put it in the bed bed bed

The baby's sleeping here

Mommy making porridge

Three bears. Big one.

It is difficult to categorise these simply. There are complex cognitive processes of language, literacy scripts and fantasy play in this session. The code decided on after discussion with the reviewer to describe this private speech is fantasy play as the function is an imaginative interaction with the characters in a story. However, within this speech there are examples of word play and repetition (such as *walking walking walking*).

In other incidences of fantasy play private speech Behnaz said to the puppet, *Doggy sit here!* and on a separate occasion, *No you can't you can't!* as she played with blocks and *look at me!* to the doll.

iv) Self-guidance/descriptive:

In an incident in the garden as she sat in a trolley, she said to no-one (as there was no-one in close proximity except me and she did not look at me either before, during or after the utterance), *I want someone to push me.* In another incident as she played alone in the family corner she said, *we need some clothes.*

In further examples of self-guidance and descriptive self-talk, for example as she played with a fishing puzzle (a puzzle with a small fishing rod with a magnet which is used to 'catch' the pieces in the puzzle) Behnaz said *I got one!* She then proceeded to name each piece as she caught it over a period of time: *Crab! A fish! A seahorse! Starfish! I got the starfish! Here's a baby one!*

Her private speech in the block corner shifted from fantasy play (talking to an imaginary person?) to word play in the following example: *No you*

can't you can't and then 5,6,7,8 and *oh the candle oh the candle*. I have no idea of the relevance of the reference to the candle - there were no candles to be seen!

And *I did it* as she finished a painting. And *I'm winning you* when playing a game rolling marbles down a maze of cylinders (independently) with no eye contact with the other child at the table.

And *You go there* as she put in the oval shape of a puzzle.

v) **Inaudible uttering:**

There were several occurrences of inaudible private speech from Behnaz:

Fantasy play as she talked on the cellphone but I couldn't hear what she was saying.

She was also obviously reading a story to herself, but I again was not able to hear the words.

Another incident was when she was doing some cutting and pasting. I was too far away from her to hear what she was saying but it was obviously related to the activity and therefore it is likely that this was self-guidance/descriptive.

vi) **Singing/humming:**

Behnaz sang to herself on several occasions. On one occasion she sang as she played the piano. A teacher noticed that she was playing and singing and brought out a music song book which included a song about a *taniwha* (a lizard-like figure from Māori mythology). In response to this she sang *I saw a snake*.

On another occasion she sang as she pulled the doll, by the hair, around the water trough.

vii) Other:

There were no observations of utterances in this category.

Summing up:

Behnaz's private speech was an aspect of her disposition, her learning of English, and her engagement with new narratives as in the story of Goldilocks. It was reflected in her fantasy play, in her play with words and in her description and self guidance of activity.

5.5.2.4 David: Context of culture and language and incidence of private speech

David is male and his age in May, 2004 was four years and five months. His cultural and language background is Cambodian.

In an interview with David's mother she said that she had lived in New Zealand for twenty years. Although David was born here and his mother had lived here for so much of her life, the only language that was spoken at home was Cambodian. His older sister attended the local school, was schooled in English and was fluent in English. His mother was concerned though that these two children would end up like her twenty year old son who refused to speak Cambodian, only speaking English. This is why David's mother only spoke to him in Cambodian. I noticed that while they were together they spoke to each other only in Cambodian.

In terms of expectations for David, his mother expected him to be fluent in English and Cambodian.

In this interview when I asked if David ever talked to himself at home she said that he did not.

David was new to the morning session of kindergarten. On my first morning there he was very upset when his mother was leaving. By the time I had spent three days in the kindergarten he was relaxed when his mother left.

David expended much energy in his play. He used both the indoor and outdoor areas extensively, moving from one to the other with ease and speed!

He had not formed any friendships during the time that I was at the kindergarten and his play was mostly either solitary or parallel.

He called out to teachers by name on a couple of occasions and I was left with the sense that he was getting ready to extend his interactions with both the teachers and the children at the kindergarten. His attempts to engage in play with other children had not been successful but he was new to the morning session and there was nothing to suggest that he would not succeed in the future.

A summary of the extent of David’s observed use of private speech is indicated in Table 5.9.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	singing	Other	Total
David:	6	20	9	24	0	6	0	65

Table 5.9. Incidence of private speech: David

David's use of language was almost entirely through private speech. I observed little social talk apart from the examples of calling out a name (calling a teacher), and saying, *hey look* to me.

When analysing David's speech, the extent of his use of language repetitively and with rhythm is striking. It is as if he was exploring the sounds of the language and making links between the language and meaning.

i) Affect:

He used expressions of *Yes! Yay!* to express satisfaction.

ii) Word play and repetition:

He used phrases like *click clock big one* repetitively. The phrase *is a car is a car is a car car car* is rhythmic to the extent of seeming like a chant or a song without music. And David explored words in the saying of words like snake then sounding out *s...n...a...k(e)*

iii) Fantasy play:

Fantasy play was seen in his sound effects ascribed to cars and aeroplanes as he played with them in different areas (example, *hmmmmm* and *ahhhh*) and in the *you go up there* to the rhino as he played in the block area.

iv) Self-guidance/descriptive:

In his play he used counting as a numeracy script as he counted blocks *1,2,3,4,5,6,7,8*; counted the playdough balls *1,2,3,4,5,6*; counted the

cylinders, and said the numbers 9,9,9,7 as he picked up blocks. His descriptive language included, *big one* and *car car big*.

Examples of private speech used for self guidance included *I can jumping* (making the plastic rhino jump), *what are you doing, big one, big one? where's car? let me start*, and *I go faster* uttered as he played with the toys in the block area indoors. Also in the *uppy, uppy* as he climbed a ladder and *here comes a cool car* (which was initially private speech but was later repeated as he looked at a child playing in the same area). He guided his own actions when climbing a ladder with, *careful, careful* and engaged with the science activity, watching liquid pouring down a cylinder with *Go! Go! Go!*.

v) Inaudible uttering:

No occurrences of inaudible private speech were observed.

vi) Singing/humming:

On different occasions he sang in different ways including:

Ah tu tu.

He sang *Oh no* as the blocks fell over.

He also sang parts of the Alphabet song and *half a house*

He hummed to himself.

He turned word repetition into a song with *Is a car car car* on two occasions.

vii) Other:

There were no observations of utterances in this category.

Summing up:

David's use of private speech was frequent. It was mainly composed of repetition of words and sounds, sound effects as well as some fantasy play as he engaged with the object with which he was playing. His self guidance was not elaborate. Instead it focussed on a single word or short phrase.

According to David's mother the home language was Cambodian. There were no links to his language at the kindergarten other than through his mother. His exposure to English was through the English context of the kindergarten, through the media and community and possibly in some interactions with his older brother who spoke only English. It was my understanding that David's brother did not live at home but there would have been some contact with him. It is unclear how much English was permitted since David's mother was adamant that only Cambodian was spoken in their home.

5.6 Summary of research in kindergarten two.

The private speech of the children in K2 reflects the differences in their individual use of private speech. Further insight into these differences is determined through analysis of the speech according to Krafft and Berk's (1998) categories. These categories were used effectively except that Selena's use of singing as a pattern in her private speech was significant enough for the researcher and reviewer to decide that a separate category was needed. This was also supported by the number of incidents of singing in the other children in the case studies.

The use of private speech is summarised in Figure 5.3 and Table 5.10. below.

Figure 5.3 below shows the proportional use of each type of private speech as used by the case study children at kindergarten two.

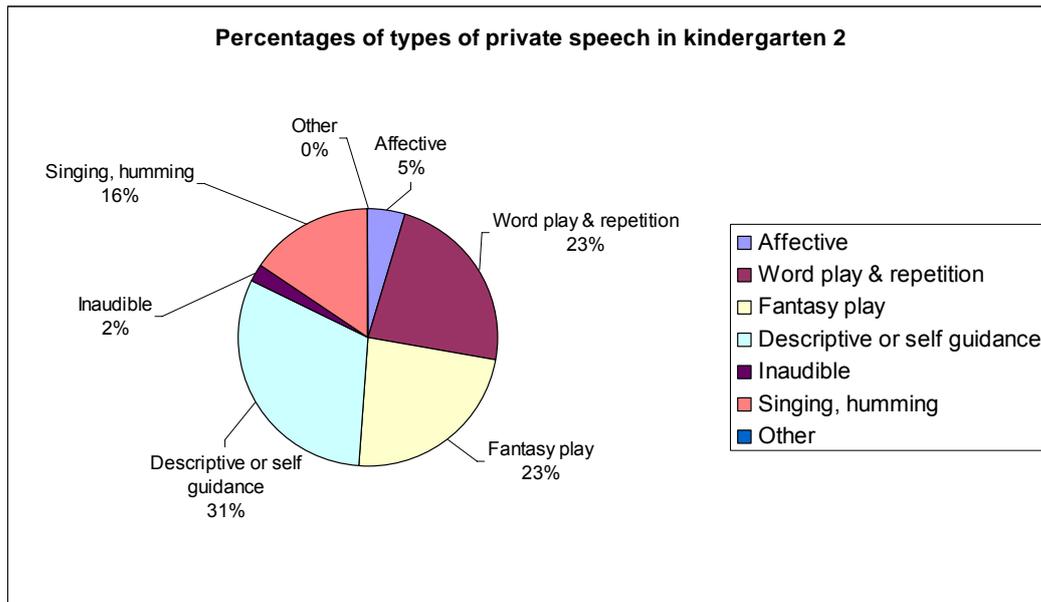


Figure 5.3 Types of private speech evident in kindergarten two.

Table 5.10 shows the actual number of utterances of private speech of the children in K2. These utterances have been discussed in detail in this chapter. Overall, there is a comparatively higher number of utterances reflected in the findings from K2 with a particularly high number of utterances from David and Behnaz . It must be noted that the researcher spent forty six hours observing at K2 whereas twenty six hours were spent at K1.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	singing	Other	Total
Selena:	0	0	1	3	0	10	0	14
Arial:	0	1	1	5	0	1	0	8
Behnaz	1	13	23	14	3	6	0	60
David:	6	20	9	24	0	6	0	65
Total	7	34	34	46	3	23	0	147

Table 5.10. Analysis of categories of utterances of private speech in kindergarten two.

As in K1 the highest category of private speech was in the descriptive/self-guidance category. The addition of the category of private speech through singing and humming was particularly motivated by Selena's high incidents of singing and humming as well as the general incidence of singing as private speech in both kindergartens.

5.6.1 Peer involvement in play

As for kindergarten one, the types of play according to the categories of Parten (1932, cited in Kirby 1997) that the children were engaged in while using private speech were predominantly in the category of solitary or parallel play. The sequence was not a single utterance, rather a sequence of sometimes several utterances in a play/activity cycle. The recorded sequence relates to the

sequence of utterances which occurred during a play session rather than the individual utterances recorded in the category analysis.

The results of the peer involvement analysis are illustrated in Figure 5.4 below:

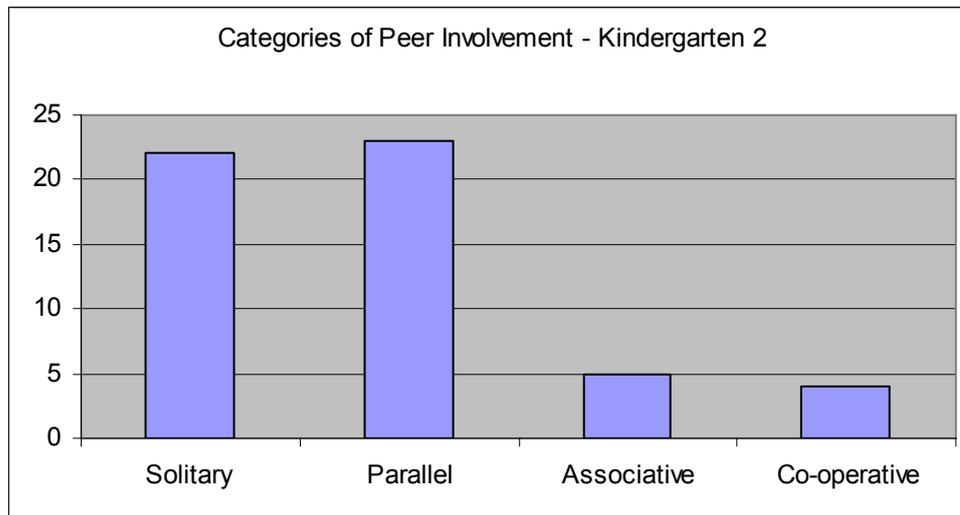


Figure 5.4. Categories of peer involvement in kindergarten two.

5.6.2 The role of the adult

As in kindergarten one, another dimension of the context of private speech was the proximity and involvement of the adult. As I was close to the child being observed for most of the interactions (except for those that were categorised as inaudible), and would have been available to assist the child if they chose to ask for help, the category that fitted most of the private speech contexts is the second one, *watcher-helper*. Apart from the incident when Behnaz was playing the piano and a teacher brought her a song book, and therefore the teacher was directly involved, the teachers in the kindergarten were generally not in this category in relation to the children in these observations, rather they were generally *uninvolved*. However, in relation to the other children at the time, they were either directly involved or *watcher-helper*. As stated previously, private

speech is generally quieter than communicative speech and less noticed. Teachers were essentially responding to where they considered themselves to be needed.

5.6.3 Goal/types of tasks: open or closed

Another aspect critical to the observations of private speech is whether these occurred in open-ended or closed activities or tasks. Overwhelmingly in kindergarten two the contexts in which the private speech utterances were recorded were in open-ended circumstances. Only 9.7 per cent of the utterances occurred while children were engaged in closed tasks while 90.3 per cent of the utterances occurred while children were engaged in open-ended tasks. This conforms with the research of Krafft & Berk (1998) which found that children in settings which are largely free-play based elicited more private speech than those in environments such as a Montessori preschool.

5.7 K1 and K2: Summary of interviews with teachers

In order to gain the teacher's perspectives on diverse languages as well as the context of each kindergarten, semi-structured interviews were held towards the beginning of the research period and then after the research had ended. While discussion with the teachers was held informally throughout the study, the summary of the more formal, semi-structured interviews is presented here.

As a starting point, at both kindergartens we discussed what private speech was and I asked the teachers to look for incidents of private speech and to record these. These were informal interviews to discuss the research process. A teacher at kindergarten two asked for an article which would help her to get a

clearer picture of the theories of private speech. I gave the teachers an article by Bailey & Brookes (2003) which was current and also particularly relevant as it was written for early childhood teachers.

There were two semi-formal, semi-structured interviews at each kindergarten. For the first interview, teachers were given the questions beforehand and then at the interview were invited to discuss these. The second interview occurred after the raw data had been collated. At that interview the researcher framed the questions and the teachers responded during the interview.

Separate interviews were held at each kindergarten but the responses are collated in this summary for ease of presentation and to highlight the similarities and differences between the two kindergartens (see appendix two).

5.7.1 Interviews with teachers.

These interviews were held at lunchtime around a table in the kindergartens. At the interviews the teachers were invited to comment on the research, were asked about their experiences of diversity in ECE, about contributing factors to the quality of their environments and teaching and their understanding and experience of children's private speech.

All teachers indicated that they had experience of diversity in ECE, outside of the experience of working in the current kindergartens. It must be noted here that all teachers felt that children should be encouraged to use their own languages.

There was acknowledgement that children tended to use English as the language in the kindergarten although teachers had heard children talking to themselves in

their own languages particularly when they were talking about things related to their homes or shared communities. In terms of the challenges posed by the diversity of languages, teachers noted that they were concerned that some children's birth names are changed to English names by the parents or *whānau* on enrolment rather than using their birth names. Also it was noted that children don't use their own language because they know that the teachers won't understand. However, teachers noticed that when children thought that there was no teacher around they talked to each other in Samoan. Teachers also identified that there were problems with understanding children's speech. For example a teacher said that she sometimes had to decipher the children's speech and work through what they actually wanted. Also it was mentioned that children who are new to a centre and to the language are quietly spoken. It is likely that this links to Saville-Troike's (1988) identification of the so-called 'silent-period'.

Teachers also noted that children who don't know English use strategies such as body language to communicate, for example, pulling the teacher's hand. This was confirmed in the second interview when teachers said that children don't expect to understand each other. Instead they use nonverbal communication for example a flick of the head. Teachers acknowledge that children are used to reading nonverbal clues.

An anecdote which is relevant to the experience of diversity and language use is included here. When the researcher asked a child in K2 what the word 'flower' was in Samoan the child suggested that she ask teacher B (who was *palagi* but could speak a few words of Samoan). This suggests that this child believed that this *palagi* teacher could speak Samoan yet the extent of the language that I heard being used by this child was all in English - she did not talk to this teacher in Samoan. It is possible that this child assumed that English was the appropriate language to use in the kindergarten environment.

An anecdote from K1 which further supports this was related by a teacher who is English speaking but is learning to speak Samoan: This teacher used Samoan words to a Samoan child expecting that the child would respond in Samoan and that this could contribute to encouraging the use of Samoan in the centre. The response was that the child merely smiled but did not continue a conversation in Samoan. The interpretation of this by the teacher was that the child was amused by the teacher's efforts but that she regarded the teacher's role as to speak English and not Samoan.

With regards to private speech, the response from the teachers was that they had heard private speech but it was not clear what was being said or even what language was used. That is, whether it was the home language or English. However it had been noticed that children sing songs from church to themselves - in their home language, Samoan. However, teachers later said that they had noticed play phone conversations which took place in English even though the child was from a different language background.

Teachers mentioned that this research had alerted them to private speech but that they found it difficult to hear what the children were saying. One teacher acknowledged that they should value private speech more, for example, allow children to get out what they want to say at mat-time.

When asked what strategies teachers used to support children's transition to a new language and cultural environment teachers named several that they found to be useful. These included establishing a rapport with the parents and *whānau*, inviting them to stay in the kindergarten as long as they liked. They also display photos of children on the wall so that children can see themselves as well as the other children in the kindergarten; and use music and drama to support different languages and cultures. Teachers also follow up on the child's interests for

example if they were interested in a snail that they had found in the garden, this would be explored more fully through books, through setting up a terrarium etc.

The teachers said that for children who are new to the kindergarten or who have not yet established friendships, they sometimes initiate connections with other children and encourage the formation of relationships as well as encouraging peer teaching and learning.

One kindergarten had an interesting resource. They had a parrot puppet which repeats the words that the children say. A significant anecdote is in the story of a girl who was Tongan who initially spoke to the puppet in Tongan but after time used only English.

In the discussion about the impact of Equity Funding teachers from both kindergartens said that these additional funds had made a significant difference to teaching, including buying in hours of teacher aide/qualified teacher time and significantly improving the quality and extent of materials and resources.

5.8 Reflective summary of teacher interviews

What emerged from these interviews is that the kindergartens had similar issues with language and similar socio-economic contexts. These included that both benefited significantly from equity funding; teachers in both kindergartens had noticed children singing and talking to each other in Samoan; teachers in both kindergartens identified that private speech was not easy to hear and therefore not always easy to respond to or to scaffold.

There is similarity in the philosophies of these two kindergartens which form the foundation for the teaching and learning that happens there. Teachers had

established strategies to support children and their families from diverse language backgrounds which start with relationships as the basic principle.

The attitudes of the teachers then are conducive to providing an environment which encourages and fosters balancing bilingualism. Yet in spite of this the language that I heard spoken at both the kindergartens was English with some *te reo Māori* (thus supporting the bicultural nature of *Aotearoa* New Zealand). During my visits I did not hear the children use their home language in their play.

5.9 Summary

Examples of the private speech used by each of the eight children who formed the basis of this research have been presented in this chapter. It has been noted that the children in the studies were chosen because they were from language backgrounds other than English. The bulk of their experience in English was based on their experiences and relationships in the kindergarten and to some extent through the community and the media. Thus the language of their homes, their primary languages were, extensively, other than English. Whilst the level of fluency in their own language did not form a part of this study, it is an expectation that the language use of these children in their own language would be richer and more complex than their use of English. English is an additional language and therefore they cannot be expected to have the same fluency in English as they would in their first language.

My expectation when I began this study was that children would use private speech in their own language rather than English. I had expected that they would feel comfortable enough in the kindergarten to use private speech even though it could not be understood by others who did not speak that language. In

line with this I further expected that I would have to employ interpreters to translate the private speech but found that this was not necessary. The observations of each child's use of private speech, in fact any speech, was in English.

The analysis of these results will be discussed in chapter six.



Chapter Six

Analysis and reflections on private speech

6.1 Introduction

The nature of private speech is that although it occurs in a social context, it is essentially, as Piaget described it, talk for self (Berk, 2001). Although it is noted that there is a genuine communicative intent behind both private and social speech (Kohlberg et al., 1968, pp. 732-735), private speech in its purest form is not directed at anyone. It stands as a one-way statement rather than a conversation. Social speech on the other hand requires a response and is part of a conversation or an intention for conversation. Vygotsky referred to social speech as communicative speech whereas private speech is not for purposes of communication (1986, p.35).

The results of this research in two kindergartens in *Aotearoa* New Zealand show that unlike the children in Vygotsky's (1978) research in laboratory settings, children whose first languages (community/heritage languages) are other than English do use private speech in other language contexts. As stated previously, the overriding expectation was that children from these diverse language backgrounds would use private speech in their own language. Yet, no examples of a child from the case study using his own language, either in social speech or when using private speech, was observed by the researcher

Within the confines of this research study, certain factors emerged which are particularly significant for an understanding of the response of children from diverse language backgrounds to a predominantly English medium environment. In this study the trend observed in all the children was for them to use English,

even in their private speech. This raises questions about the factors that influence children to choose to use a language that is not their first language, rather than the home language in which they are fluent. What are the influences of their peers and the kindergarten community, the media, the expectations of the parents? According to Alladina (1995), the child's need to be the same as his peers is overriding and it is in this paradigm that language shift, the shift to using the dominant language of the context, appears to occur. These factors were not the focus of this study yet these questions must be raised as part of an understanding of the wider issues pertinent to this study.

In this chapter the threads that run through the research will be examined further. These threads include the individual use of private speech; the categories of private speech used by the children individually and collectively; peer involvement; the goal of the activity; the role of the adult; the hierarchical nature of private speech; the kindergarten context; individual contexts; the choice of English as the language to express their thoughts; the relationship between private speech and social speech; the language used (for example use of colloquial language, language scripts); self-guidance/self-regulation, and *Te Whāriki* (Ministry of Education, 1996) and learning.

Research over the past twenty five or so years has documented the occurrence of private speech in early childhood both in open-ended and closed experiences with varying results and conclusions. These are discussed in depth in chapter four of this thesis. In chapter five the results of this research showed that the children in the case studies used private speech, with individual variations in frequency and categories of private speech. These variations in frequency and categories of private speech were affected not only by context and function but also by social situations, and the personalities and dispositions inherent in each child. As the focus of the study is on private speech and not on personality or disposition, these factors have not been defined or analysed. Rather, it is noted

that these are aspects in the child's individual responses to situations and experiences.

6.2 Research findings

The primary question is: *Do children from foreign language backgrounds attending English-speaking kindergartens, use private speech?*

The answer to this is clearly yes. What was not expected was that children would use English as their language of self-expression. As noted, there were also variations in the types of private speech and the amount of private speech of each child.

The variation in frequency and category of private speech is shown in Table 6.1.

Name and number of utterances:	Affect	Word play and repetition	Fantasy play	Self-guidance and descriptive	Inaudible uttering	Singing	Other	Total
Tana:	1	1	0	7	1	1	0	11
Lilian:	0	0	3	3	0	0	0	6
Jimi:	0	0	1	4	0	0	0	5
Elizabeth:	0	0	0	2	0	1	0	3
Selena:	0	0	1	3	0	10	0	14
Arial:	0	1	1	5	0	1	0	8
Behnaz:	1	13	23	14	3	6	0	60
David:	6	20	9	24	0	6	0	65
Total:	8	35	38	62	4	25	0	172

Table 6. 1: Analysis of private speech utterances in K1 and K2.

These results show the observed private speech of each of the children in the case studies in both kindergartens and show that there was substantial variation in the use of private speech. The variation of use of private speech supports a hypothesis that individual children use private speech differently. Elizabeth for example has three examples of private speech whereas David has sixty- five.

There are a number of possible explanations of these variations. While it is possible that this realistically represents each child's use of private speech it is also possible that this would not reliably reflect each child's use of private speech in a more extensive study. It is further possible that during the research period these children used different amounts of private speech than they would over a longer period of time. It is also possible that the researcher was placed in a particular position at a particular point in time and therefore observed certain incidence of private speech and not others or even that the presence of the researcher resulted in some of the children modifying their behaviour, either consciously or subconsciously. Further, there was a significant difference in the amount of time spent in each kindergarten. The time spent in kindergarten one was twenty-six hours whereas in kindergarten two the time was forty-six hours. This may have had a significant impact on the number of utterances observed in kindergarten one.

While it is noted that a number of possibilities that could have contributed to the difference in the occurrence of private speech exist, the private speech of the children was analysed in the context of which they were observed, in the naturalistic setting of the kindergarten through participant-observation. Based on the similarities in the research contexts, (culturally diverse; 'free play' programmes in the morning sessions of public kindergarten), opportunities to hear children and to document their private speech were fundamentally similar.

6.3 Emerging themes.

The emerging themes from this research extend beyond the initial research question. This inquiry was into categories and frequency of private speech, the contexts of that speech and the responses that the speech initiated. These have been documented in chapter five. Analysis of the contexts and the responses to the speech indicate that these are unique to the child and the situation. For example, Tana's counting of the yellow sandpit toys led to a response from Ken and the private speech effectively initiated sustained interaction for a fair length of time. Conversely, there were many examples where children used private speech which did not elicit any response either from peers or from teachers. These thematic threads will be explored in the following discussions.

6.4 The individual use of private speech.

In comparing the frequency of the private speech spoken in the kindergartens, it is evident that although every child used some private speech, six of the eight children used minimal amounts. Two children, David and Behnaz showed comparatively frequent and sustained use of private speech. The six children used a range of three to ten occurrences whereas David used sixty-five and Behnaz sixty.

6.5 Categories of private speech

The categories identified show that there is difference not only in frequency but also in function.

i) Affect expression

As an expression of emotion, this type of private speech occurs in a variety of situations where the child expresses some affect sense. David has the highest occurrence here and three out of the eight children used affective private speech at least on one occasion.

Affect responses tended to be one word utterances as in *Yay!* or *Cool!* These expressions were also observed in children outside the case studies at the kindergartens.

ii) Word-play and repetition

This type of private speech, although it is situated in a lower hierarchical category according to some research (Kohlberg et al., 1968), elicited some interesting perspectives about the use of language. Perhaps because the children in these scenarios are learning the language, using the same word repeatedly is one way of using and memorising the language. Both Behnaz and David had high incidence of this type of private speech.

iii) Fantasy play

From my experience as an early childhood teacher, I had expected to hear more examples of imaginative play expressed in private speech than in any other category. This was not the case as there were no examples of this type of speech in two of the eight children in the study. Behnaz had the highest number of occurrences.

There are other examples that support my experience in early childhood education that children use private speech in their imaginative play. These included children at the kindergartens but outside the case studies:

- 1) A child who was particularly prolific in her use of private speech in imaginative play had these conversations using an obsolete cellphone over a period of time in a play session:
 - a) *Dring, dring. Hi.....(pause)*
Her Mum's coming to fetch her. (Pause)
Pick me up!
 - b) (She took the cellphone from a friend) and said: *Mummy say we crashed!*
- 2) Another child was totally involved in her play with plastic horses and in a gentle tone that supported the words, said, *Now the mummies are coming home to see their darlings.*
- 3) And the example of the extensive imaginative play session of one child in the sandpit which involved her creating a dialogue with her own voice (referred to as voice 1 and voice 2 in the example below):

Voice 1: *This is your castle, sheep. Ok?*

Voice 2: (Using a high pitched 'other' voice): *Okay.*

Voice 1: *I'll squish this down. I won't kill you.*
I won't kill you either, okay?

Voice 2: (high pitched other voice): *Okay.*

Voice 1: *I'm putting eyes on your castle sheep.*
And here's her nose.
Whoopsy she forgot her head.
Here's her head. Here's her hair.
I'm putting some hair on.

This elaborate monologue is worth noting for its total concentration and rich imaginative context as well as the child's ability to work with two characters!

iv) Self-guidance and descriptive

Self-guidance and descriptive private speech have been categorised in the same category by Krafft & Berk (1998) and used in the same way in this research. This raises some challenges in the analysis and findings as descriptive private speech, that is, describing the action, does not necessarily mean that the child is finding a solution to a problem as was suggested by Vygotsky (1986). In the analysis of private speech, combining the two categories allows for the inclusion of simpler examples of children describing an action as a way of affirming that action or understanding it rather than applying private speech for the purpose of finding a solution to a problem. For example, Selena's *I want some painting* accompanied her action of engaging herself in this activity rather than a more complex scenario such as applying a description (*I want some painting*) and then using private speech to decide what she needed to do to achieve this goal. In this example, since the paper and paints were already available, Selena merely started painting.

This type of private speech (the combination of descriptive and self-guidance) had the highest occurrence in this research. Every child in the case studies used this type of private speech at least once. Had this speech been coded separately then this would have yielded a different result. However, in this research as in Krafft and Berk (1998), these categories have been combined. The findings from this research, based on a view that description may guide or assist the action but not necessarily pose or lead to the solution to a problem, conforms with expectations from research that children use private speech significantly to guide their actions (Winsler et al., 1997).

Examples from children outside the case studies included:

1) A child pushing a train over the bridge that he had made repeated the phrase several times: *Go over the bridge, Go over the bridge.*

2) And an example of a child supporting the concentrated effort that he had to make to roll a barrel around the playground as he said, repeatedly, *Turn it and push it, turn it and push it...*

v) Inaudible

While the idea is that private speech gradually becomes quieter as the child matures, in the instances where the speech was inaudible in this study it was not because it was going underground but rather that the researcher was out of earshot and could not hear the words spoken!

There is an example of Behnaz's private speech which is relevant here. In discussion with the reviewer we established that even although it was not possible to hear what Behnaz was saying, the recorded observations showed that she was clearly 'reading' to herself. However, as the words were not audible, it was eventually categorised as inaudible.

vi) Singing and humming

Singing features in the private speech of six of the eight children. It was extensive enough for the reviewer and I to include this as a separate category. Singing or humming was observed in the singing of a well-known song such as

the Alphabet song and in compositions which were in the form of humming a melody or in singing words to a melody. This was an interesting aspect of the research. There were also incidents when private speech became social singing as in Tana's example when playing at the water trough.

This started with Tana's wordplay saying *yeh yeh yeh yeh yeh...*

to which a boy responded with *da da da da da*

And Tana sang back: *da da da da da*

This singing extended to a repeated cycle of the *da da da da* and then resulted in happy social exchanges as the boys co-operated in their play with water and the equipment (waterwheels, containers) that was used.

In another example, one boy (A) sang on a couple of occasions including, *Dinosaur down, dinosaur down* in a two note melody (GGG GF) and in a different incident, started a song which led to a duet with another boy (B):

Boy (A) started with the words:

(A): *rango tango*

(B): *oo loo loo loo*

(A): *doo doo doo*

And then both together:

(A & B): *doo doo doo*

The singing happened in a variety of contexts: as children played on their own, as they were walking, while they were engrossed in play and in response to hearing a song sung. There were examples of the song being complete without

any response from anyone else, but there were also examples of the song initiating duets and echo singing.

Selena's patterns of extensive periods of singing are outstanding in their prevalence in her play. Yet, although Selena's use of singing dominated her play and her private speech, it is difficult to illustrate the extent of this in the numerical categorisation of private speech occurrences. Further, the fact that she did not use words in much of her singing, rather she hummed these melodies, means, to some extent, that it is not easily coded as private speech. However, private speech is defined as an extension of thought. Selena's humming reveals her thoughts in terms of music scripts that feature significantly in her expression of self and thought process.

In acknowledging the role that music plays in culture, in communities and in society generally, observing the musical scripts which are voiced through private speech could open up new opportunities for educators in understanding the child's socio-cultural-linguistic experience. Singing and humming, in the individual responses to music as well as the instances when children, in response to private speech, engaged in shared singing, is an area of private speech which is yet to be researched fully. While Saville-Troike (1988) recognized that singing was an aspect of private speech, this was defined as self-stimulating at the lowest level of the hierarchy. The observations in this research study signal that there may be more to singing than merely self-stimulating. There is a need for further research to explore this phenomenon.

vii) Other

The categorisation for 'other' was private speech that did not fit into any of the previous categories. There were no occurrences in this category.

6.6 Categories of peer involvement

Clearly the observed use of private speech was predominantly in play that did not involve peers at a significant level. In both kindergartens the peer involvement such as associative or co-operative play during sequences of private speech utterances was less frequent than solitary or parallel. In the observed occurrences it seems that the children were focussed on their own tasks and emotionally, physically, linguistically, and cognitively located in their own worlds of play.

The overall extent of the categories of play observed from the perspective of peer involvement is described in Figure 6.1 below:

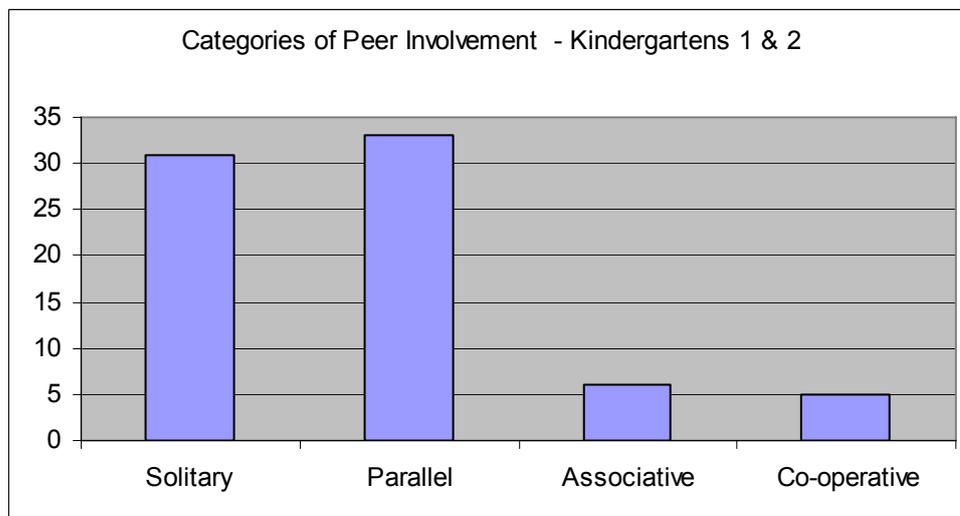


Figure 6.1 Categories of peer involvement – kindergarten one and kindergarten two

In the occurrences of private speech that occurred during solitary play the child was ostensibly oblivious of his peers or in fact on his own. In the occurrences that occurred in parallel play the child was playing alongside another child or children but not involved with, or interacting with, the other child or children.

The implications of the predominance of solitary and parallel play in the occurrences of private speech are not particularly significant though. It may for example arise from the fact that it was easier to notice and therefore observe and document private speech in these contexts rather than when a number of children were talking to each other and one child was talking to himself as they worked within the same task (associative), or when children were totally engrossed in working together towards a common goal (co-operative play).

6.7 The goal/type of the activity

Again overwhelmingly for both kindergartens the activities in which the children were engaged were predominantly open-ended with kindergarten one recording 80% of private speech occurrences in open-ended activities and kindergarten two recording 90%. This supports the hypothesis that private speech occurs more in open-ended tasks than in closed tasks. A contributing factor may also be that the kindergarten environment had a predominance of resources that could be used for open-ended activities.

6.8 The role of the adult

Based on the three categories defined by Kirby from Berk & Garvin (1984) it was identified that my role of researcher fitted into the role of *watcher-helper* with the emphasis particularly on *watcher* as there were only a couple of incidents when the child directly turned to me for help. Apart from one incident in which the teacher was directly involved, and in the role of *watcher-helper* when a teacher observed children's utterances of private speech, the role of the teachers in relation to the children whose private speech utterances were observed, fitted into the category of *uninvolved* in relation to those children at

that particular time. The teachers were either directly involved or watcher-helpers of other children or, for other reasons were not involved with the children in the case studies at the time that the private speech utterances were observed and recorded.

6.9 Hierarchical nature of private speech

A perspective on private speech, mentioned in chapter three, that makes it a developmental feature as in Piaget's understanding of egocentric speech, is in the idea that private speech occurs in a developmental hierarchy. Kohlberg et al. (1968) and Rubin (1973) presented the occurrence of private speech in stages.

Level I: Pre-social self-stimulating language

Word play and repetition – repeating words or phrases for their own sake.

Level II: Outward-directed private speech

Remarks to non-human objects.

Describing one's own activity- remarks about the self's activity which communicate no information to the listener not apparent from watching the speaker.

Level III: Inner- directed or self guiding private speech

Questions answered by the self eg. Do you know why we wanted to do that? Because I need it to go a different way.

Self-guiding comments- speech which precedes and controls activity.

Level IV: External manifestations of inner speech:

Inaudible muttering - statements uttered in such a low voice that they are indecipherable.

Level V: Silent inner speech or thought

Inner speech - the child is silent throughout the experimental period.

(Kohlberg et al 1968, pp. 707, 708 and Rubin 1973, p. 104)

While acknowledging the research of Kohlberg et al (1968) and Rubin (1973), the focal point of private speech as a developmental hierarchy places the status of private speech in a developmental, stagist paradigm, and thus imposes restrictions on the analysis of private speech which reduce the relevance of other factors. On its own a hierarchical view of private speech does not take into account the context of language or the 'mood' of the occasion or situation as referred to by Isaacs (1966). Nor does it allow for the variety of private speech which children may exhibit over a period of time.

It was not the intention to categorise the private speech according to a hierarchy and therefore potentially to assign a value to the utterances in this research. In fact this was deliberately avoided by choosing Krafft & Berk's (1998) categories which were not based on a hierarchy. An awareness of this hierarchy does however provide an alternate view to the categories of speech. For example, much of David's speech could be categorised as pre-social, self-stimulating language. This could relate to his social relationships as he had not yet formed any friendships and was for the most part involved in solitary or parallel play. He was reliant on his own company, using his limited understanding and fluency in English to support and guide his play. However, word play/repetition and descriptive/self-guidance private speech feature equally in David's speech. Therefore, the hierarchy does not define David's maturity of thought or action.

The reference to this hierarchy also raises question about the private speech of the six children in the case study who used minimal private speech. Does it mean that they are at the higher stages of thought, namely using inner speech? Without clear evidence that these children were using inner speech it is not possible to make that assumption. However, it provides an alternate view of private speech and it is from this perspective that it is included in this thesis.

6.10 Self-guidance/self-regulation

Within the broader function of self regulation is the category of self-guidance which has been the focus of much research. Self-guidance and descriptive private speech have been categorised in the same category by Krafft & Berk (1998). This suggests that they are deemed to serve a similar function. As discussed earlier, in the analysis of the categories of private speech descriptive private speech does not necessarily link to finding a solution. It may however be used to describe what the child is doing and thereby contribute to his understanding of this and to his response or behaviour. Vygotsky identified egocentric speech as a significant behavioural and learning tool saying that it takes on a *directing, planning function* and raises the *child's acts to the level of purposeful behaviour* (Vygotsky, 1986, p. 31). Viewed from this perspective, the combination of descriptive and self-guidance categories can be considered to have some validity - the act of describing the action supports purposeful behaviour. However, this is not clear in every utterance and the combination of these two categories does not describe the function and type of private speech clearly. There is therefore justification for researchers to critically consider the use of descriptive and self-guidance private speech as one category.

It is accepted that the role that self-guidance has in guiding children's actions and in scaffolding their learning is significant. Children serve as their own monitors of learning and behaviour by commenting on these, making sense of their actions and articulating their understanding. Their private speech forms a self-scaffold that, while it is extrinsically dependent on their social learning experiences and on the support of peers and adults, in these instances of private speech they are effectively and independently contributing to their learning and behaviour. The examples shown in Figure 6. 2 indicate the extent to which this self-guidance was observed in individual children in the case studies.



Figure 6.2 The frequency of incidence of self-guidance and descriptive private speech for self-regulation

Although David used considerable amounts of word play and repetition he also used the most utterances of private speech for self-guidance. This indicates that David was using private speech for more than one purpose. In terms of self-regulation, his language was used to self-scaffold his learning. In the absence of peer support in his play, this use of self-regulatory language provided a significant tool in his learning.

Self-regulation is discussed extensively by Bronson (2000). Her discussion has a wider focus than that of private speech but the concept has relevance here. She writes about self-regulation in early childhood highlighting the difference in the focus on self-regulation by theorists from differing schools of thought. The distinction that she refers to is particularly between a focus on the cognitive aspect and a focus on the behavioural aspect (Bronson, 2000, p. 3). In this thesis it is evident that both cognitive and behavioural factors are critical aspects.

The behavioural aspect is evident in the examples of Jimi and David. In Jimi's example, he said *I am finished* to self-monitor his behaviour. David used

careful, careful as he climbed the ladder to adjust his actions to the challenge of the ladder.

The cognitive aspect of self regulation is evident in Behnaz's example. In retelling the story of Goldilocks and the Three Bears, Behnaz used narrative to clarify her understanding of the events and characters in the story and therefore was using self-regulation through private speech cognitively. There are many examples of the use of private speech to self regulate or self-guide actions and thought.

It must be mentioned here that according to Krafft & Berk (1998) open-ended tasks in fact induce higher levels of self-regulating behaviour than closed tasks. One observation of David working through a puzzle is relevant here. On this occasion, David had completed a puzzle on his own apart from one piece. He had obviously misplaced one of the pieces in this 24 piece puzzle and could not complete it. He was on his own and tried for about five minutes to re-work the pieces but could not find the right combination. Eventually he left the puzzle and walked away. I had expected this situation (I was close enough to hear and watch but far away enough for him to (seem to) not notice my presence) to elicit private speech yet David did not use private speech at all. Yet in the tasks in which he defined his own goals and set his own behaviour, he used significant utterances of private speech. This raises a rhetorical question of whether it was the closed nature of the task that in fact stifled his use of private speech.

6.11 Language use in self-talk

One aspect frequently referred to in the acquisition of second or other languages is the occurrence of a so-called silent period (Krashen, 1985, p. 9; Saville-Troike, 1988). During this receptive period the child will be listening and observing and

will only speak when she is ready (Dulay, Burt & Krashen, 1982). This may be described as a period during which the child may understand more of the language than she can voice. That is, this is a period of focussed listening and growing understanding of meaning but the child does not have the vocabulary and confidence required to express herself.

Again, it must be argued that the term 'silent period' does not adequately describe the change from receptive to expressive language in the new language. This period is not exclusively either silent or expressive. Instead it is a process of listening and speaking from perhaps silent towards an increase in speaking.

It is not clear how the silent period related to the children in the study. Each child used communicative and social speech that related to their individual personalities, dispositions, acquired language and the contexts of play.

However, in analysing the observations of their self-talk, the elements of language use that were noticed included structure and syntax, rhythm, the changing of words, numeracy, the use of colloquial language, the shift from private speech to social, the use of private speech in narrative and the sole use of English in private speech. Each of these is discussed in the following section.

6.11.1 Structure, syntax

The structure and syntax of the language used in the examples of private speech tends towards simple rather complex use of language. Essentially it could be argued that private speech does not generate complicated language structures. Furthermore, Vygotsky (1986, p. 236) stated that egocentric speech evolves to become inner speech and that the language of egocentric speech gradually becomes more like inner speech with reduced use of the subject while

maintaining the predicate. However, as acknowledged by Vygotsky (1986, p.237) there are also examples of this predication in social speech. Equally, from the utterances of private speech of the children in the case studies, there is evidence that the private speech tended to be more simple than complex. This may be further explained in that the utterance, although it is within a social perspective, is primarily addressed to the self. It has a finite quality rather than the openness for language exchange and social interaction that there could be in conversation, which requires a response. The child using the private speech does not need to elaborate on a thought. As private speech it needs no embellishment or expansion. Considering that English was not the first language of the children in the studies, this too would have influenced their use of language.

The private speech of the eight children in the case studies is expressed in phonemes, words, phrases and short sentences, with examples of simple to more complex structure, as in the following examples:

Yay!

Yuk yuk yuk.

Bop bop bop.

Big one.

Delicious dinner.

I did it.

Car car car car big car.

Let me start. I go faster.

The baby's sleeping here.

There is an example of more elaborate speech in a child, (*Kiri*, also four), who while playing with plastic horses said, *Now the Mummies are coming home to collect their darlings*. *Kiri's* first language is English and the social speech that I observed her using was complex.

6.11.2 Rhythm

The use of rhythm in language is an aspect that I have not encountered in the literature on private speech. Although repetition is included as a category this does not describe the rhythmical repetition of language that features significantly in this research.

For example, David said:

Click clock big one

as he played by himself, building with blocks.

Also in his chanting of:

Is a car is a car car car

Is a car is a car

Is a car car car

in the same session as above as he then walked away from the blocks.

And, in an incident where a child outside the study attending kindergarten two repeated

Turn it and push it

Turn it and push it

Turn it and push it

as he pushed a barrel around the playground.

There is also a connection between rhythm and singing that was evident in a number of the songs including the *da da da da* song at the water trough.

6.11.3 Changing words

Snow describes the way that some words are changed in communities (Snow, 1977). Making changes to words was evident in the self-talk. David said, *uppy, uppy* and Behnaz changed chalk to *chalky chalky* and horse to *horsey horsey*. As the language used generally in the kindergarten and in the community generally did not use this suffix, it is not clear where the influence for this originates.

6.11.4 Numeracy

Counting objects and also merely reciting numbers was evident in the observations in both kindergartens. These children were learning about the symbols of language associated with number. The language of numbers formed part of their thoughts and this is demonstrated both in their chants when they are dealing with objects as well as in their actions when they actively counted objects. It was also interesting how children copied each other for example when Arial heard someone counting at another table she started counting too.

6.11.5 Colloquial language

The use of words like *cool, yummy, yeah, (crook* – used by a child at the kindergarten but outside the case-studies), illustrate that these children have learned language specific to the English community language culture in which

they find themselves. They were engaging with this culture through their use of language and the actions that link the language to their actions in their private speech.

6.11.6 From private speech to social language

One example illustrates Vygotsky's theory that children will attempt to self-scaffold but when that does not work they turn to someone else, either a peer or adult. The example is of Ariel who says *I can't fix it*, waited and then turned to the researcher and said *I can't fix it*. Her initial speech was expressed as a thought. The second utterance was a call for assistance.

Private speech which led to conversation was also observed. In particular, Tana and his *I've got one, two, three, five* got a response from Ken who having counted the toys responded with the correct number. This was the end of Tana's private speech in that session as he and Ken then proceeded to engage in co-operative play in the sandpit for a substantial length of time, until they were called on to tidy up.

I also observed social speech inverting to private speech. Kiri wanted some glitter and at the table said to the other child there, *I want some glitter*. She was ignored so after a pause she sang, *I want some glitter* to herself. She was still ignored but as soon as the glitter jar was put down she helped herself!

6.11.7 Narrative

Behnaz's story-telling of Goldilocks and the Three Bears through private speech is indicative of a child who is learning more than a language. Through her

private speech she showed that she has grasped the essence of the language used, the characters in the story, the repetition that is part of the appeal in the story and once again the rhythmical nature in the repetition of some words. She was able to explore the story without any confines. For this reason, that the story became her own and therefore was not confined to prescription in narrative, it became an open-ended experience that she used to process her thoughts and an understanding of the characters and events as she had interpreted them.

In an example of Selena's private speech she repeated the words in a story which was told at mat-time for a small group of children (fifteen children). Although her response was only in a phrase, *I'm much too...too wriggly* her learning was reinforced through her repetition of the language while the story was being told. Selena happily used private speech to reinforce this learning. This links to the discussion in Bailey & Brookes (2003) in which they urge teachers to acknowledge the value of children using private speech to support their learning. They also suggest strategies for teachers to use to help children to direct and process private speech for self-guidance rather than for teachers to dismiss the private speech (such as children using private speech during a story at mat-time) as disruptive rather than as conducive to learning (Bailey & Brookes, 2003).

6.11.8 Private speech in English

It seems that one of the tasks that faced the children in the case-studies was to learn the language of the kindergarten. It is a subconscious task and not one which they articulated as a goal. Learning the language was done through acquisition, in a natural way rather than in a formal sense. It was interwoven with the learning that is part of their natural curiosity and desire to explore. It is clear though that the task of learning English adds another dimension to their experience and colours how they respond to situations and the choices that they

make. Learning to speak English seems to be embedded in the subconscious thoughts and acts of the children through their play.

The kindergartens show support for the languages and the cultures that the children and their families bring with them, and the bi-cultural nature of *Aotearoa* New Zealand, but it is the language and culture of English that pervades. The children, in choosing to use English in their private speech are demonstrating the cognitive switch that they have made to this new language and culture.

In a 'balancing bilingualism' paradigm, these children have shifted the balance at this point in time, in their time at the kindergarten, to learning English. It is expected though that if their first or heritage language is continued in the home, the balance will at some point achieve some equilibrium as the children learn to be fluent in English and their own language. It is again acknowledged that this is a balancing act and that at different points one language will dominate over the other, which is what was happening during the kindergarten session.

6.12 The kindergarten context and private speech

Both kindergartens operate pedagogically and in practice within a curriculum which allows predominantly for 'free' choice within the kindergarten environment. Each kindergarten has its own system of implicit and explicit social rules and culture. Within an educational system, particularly in the public kindergartens and the 'mainstream' child care centres, that is widely based on this pedagogy, a number of theories underpin the curriculum with various degrees of influence. These include Froebel, Piaget, Vygotsky, Montessori, Bronfenbrenner, Bruner, Rogoff and Māori pedagogy as identified in *Te Whāriki* to name a few. These theories are implicit rather than explicit in practice but

they inform the vision, the policies and the relationships that are evident through curriculum and interaction. Piaget and Vygotsky further inform the discussion on private speech that forms the foundation for this thesis. Therefore evidence of their influence on practice is an integral part of this discourse.

Piaget's influence on the kindergarten pedagogy and therefore curriculum are evident in the experiences of the children in the case-studies. The environment was set up so that it provided for activities and experiences that were appropriate for the child's age and allowed for individual development and interpretation. The children were then able to explore these and interpret these at their level. Piaget saw the child as an active learner whose cognitive development is linked to developmental stages and to the child's innate desire to learn (Berk, 2001). This aspect was evident as the environment and activities set up were largely open-ended but designed to meet the holistic needs of children from the ages of two to five plus. It is noted that Vygotsky challenged and developed Piaget's theories and built on them. In Vygotsky's work he noted that while the environment plays a role, it is critical that children are supported in their active learning through social relationships, through scaffolding and through the socio-cultural context of their world (Vygotsky, 1978). Thus, as was evident in both kindergartens, the importance of the environment and relationships and a philosophy that acknowledges the developmental needs of the young child form an underlying perspective in a setting which through praxis articulates the theories of Piaget and Vygotsky.

As discussed in chapter two, the documents which support this pedagogy and practice are in the Ministry of Education documents and in those of the Education Review Office. In a discussion which gives a wider view of the purpose of early childhood education, the Education Review Office states:

Attending an early childhood service gives children the opportunity to gain a different set of experiences from those they may get at home. For most children, the differences are likely to include:

Being a group member with same-aged, older and/or younger peers;

Making relationships of trust with non-family adults to meet needs for emotional and physical wellbeing;

Learning to communicate with familiar and unfamiliar people;

The challenge of a wider and different range of learning experiences;

The likelihood of adult expectations that are different from those at home.

For some, learning a new language.

(Education Review Office, 2004a, p. 2)

The open-ended nature of the physical environment as well as the opportunities for social interaction that were evident in the kindergartens in principle support a view that the opportunities for learning as described above by ERO were apparently available to the children. From the observations of the physical environment (centre design, equipment, materials), the attitudes of the adults, the play of the children, and the opportunities for learning that existed in these environments, which are both definitive in terms of curriculum and open-ended in terms of opportunity, the potential for optimal experiences seemed to exist. As a kindergarten teacher I have some philosophical bias towards these environments as optimal learning contexts for young children. However this is coloured with high expectations and critical inquiry of what counts as quality for children in early childhood. My observations of the environments and the children attending the two kindergartens, was that the environments were designed to allow for opportunities to explore and through play to extend learning. In this research it is not possible to assess whether all children had their needs met but the ERO descriptors referred to above certainly seemed to be in place for all the children. Observations in the kindergartens critiqued in relation to both *Te Whāriki* and ERO criteria and in terms of my own philosophical and pedagogical reference led me to the conclusion that these children were potentially in optimal environments for independent learning, for

co-constructing with their peers and teachers, and for empowerment based on their own initiatives.

Conversely, in shifting the focus to one which examined the learning environment for a 'balancing bilingualism' paradigm however, what became obvious is that these children were in English immersion contexts. There were limited opportunities for exploring their own languages and language scripts (in conversations, numeracy, literacy, music, dance, culture) particularly for children whose languages were not known by the adults or children at the centre, such as Farsi, Chinese, Cambodian. In spite of the commitment by teachers to bilingualism, even to the extent of teachers who had taken the initiative to learn some Samoan, it has to be acknowledged that English was pervasive and the balancing of bilingualism was inequitable in the kindergartens.

What both kindergartens did achieve however, was to create a culture in which interaction from significant others (such as parents, grandparents, caregivers, *whānau* and, when appropriate, visitors such as student teachers), was invited and encouraged. At one kindergarten there was involvement on a daily basis from adults. This involvement included a project in which they (*whānau* and caregivers) were invited to read to the children. This was a structured initiative to improve literacy and to involve the families (and caregivers) in the joy of sharing reading.

At another level, one grandfather who spoke only Chinese, stayed at the kindergarten throughout each morning session, voluntarily participating in tasks such as sweeping and tidying. At both kindergartens an ongoing initiative was for adults to bake with the children. The baking (I observed the baking of scones and muffins) happened on a weekly basis.

All these incidents were ideal for encouraging *whānau* to communicate in their home language with the children yet I did not observe this happening. However, at this point it has to be acknowledged that there might be other complex factors that influence the language use in the kindergartens rather than suggesting that the teachers and kindergarten communities could do more. More research is required to address this, but at this point the importance of establishing or revisiting a diversity policy which identifies how centres will progress, with the support of the parents and *whānau*, to create a culture of learning which supports the languages and cultures of the children and families at the deeper level of understanding that is referred to by ERO, is mooted (2004b).

What is promising though from this research study, is that the context for involving *whānau* has been set up by the kindergartens. Based on this, further opportunities therefore exist to encourage the families and caregivers to incorporate their languages into the learning experiences of their children. Finally, a redeeming thought, as has been stated previously, is that whatever the context of the language environment (and the bias here is for the child's language to be available to them in their learning contexts) if the home and the community of the family support the first language extensively and richly, then the paradigm of balancing bilingualism, in spite of complex challenges in language contexts, is potentially achievable.

6.13 Individual children.

In this thesis the focus is based on case studies within a qualitative research paradigm. It is an attempt to draw a composite picture of the child's experiences through the examples of private speech with reference to the home background, the experiences of the children in the kindergartens and the perspectives of the teachers within the context of the kindergartens in *Aotearoa* New Zealand.

Based on this perspective, which acknowledges cognitive, social and emotional (including aspects of behaviour), linguistic, cultural, physical, and spiritual experiences, it is intended that a wider overview of each child's private speech is presented. Reference to anecdotal observations that attempt to do this are included in chapters five and six. The intention, in line with the spirit of the New Zealand Early Childhood Curriculum, *Te Whāriki* (Ministry of Education, 1996), is to acknowledge aspects of the child which reflect a wider picture of who they are.

6.14 *Te Whāriki* and learning

The principles of *Te Whāriki* provide a philosophical framework which goes beyond ideas of practice to attitudes, philosophy and political and social constructs. It is inspirational in that it provides a framework which to some extent unifies and standardises early childhood education in *Aotearoa* New Zealand, but is also flexible enough to allow for differences in practical application. In terms of the discourse about learning it defines learning and development, within a socio-cultural perspective, throughout its 99 pages so that ages, stages, individual development and expectations for learning are clearly articulated. The principles of Empowerment *Whakamana*; Holistic Development *Kotahitanga*; Family and Community *Whanāu Tangata*; and Relationships *Ngā Hononga* are embedded in the Strands of Wellbeing *Mana Atua*; Belonging *Mana Whenua*; Contribution *Mana Tangata*; Communication *Mana Reo*; and Exploration *Mana Aotūroa*. There are clear links to theories (for example ecological theory is mentioned) and to the New Zealand Curriculum Framework used in schools (Ministry of Education, 1993).

In terms of dispositions for learning as referred to in *Te Whāriki* these are defined as *habits of mind* or *patterns of learning* (Ministry of Education, 1996,

p. 44). In relation to the kindergartens and the children in this research study, the principles, strands and goals of *Te Whāriki* and the dispositions of the children were evident. Ostensibly the practice in the kindergartens supported the ideals of this document. The children responded to the open-ended and structured times as individuals within the kindergarten environment. Their use of private speech within the contexts of their play experiences is indicative of individual differences and their dispositions, their attitudes and strategies that they applied to learning. Dispositions are referred to as five domains of learning dispositions and are included in the Learning Stories assessment sheets used in early childhood centres. These five domains (which are not exhaustive) include:

- *taking an interest*
- *being involved*
- *persisting with difficulty*
- *communicating with others*
- *taking responsibility.*

(Carr, 2001, p. 23).

Learning for children, through play, is reflected in these dispositions. Private speech can be seen to play a role in these dispositions and in their learning. Self-guidance and descriptive private speech used while working through a puzzle can aid *persisting with difficulty*. In the example of Jimi's utterance of *I am finished* he took responsibility for his actions in working with the rules of the kindergarten at *kai* (literally food Māori) but meaning morning tea in this context) time. David supported his careful climbing up the ladder with *careful careful*. Insight into dispositions for learning may well be observed in the private speech of young children.

In the research of Krafft & Berk (1998) they concluded that *private speech occurs universally among preschool and primary school children accounting for 20 to 60 per cent of their spontaneous utterances as they go about their daily activities in classrooms* (p. 638). In this thesis it has been shown that children use their private speech to express their thoughts, to work through challenges

and to support their learning. There are also incidents where private speech is seen in a different role as a pre-emptor of social exchange and interaction. Essentially, young children's private speech is expressed through individual behaviour and individual personalities and dispositions in response to different contexts. It was evident that there are differences in the use of private speech observed in these children but that every child used some private speech.

6.15 Reflections

As identified in the research reviewed in chapters three and four of this thesis, private speech is part of the child's speech and is *...a significant tool of thought in a proper sense, in seeking and planning the solution to a problem* (Vygotsky, 1962, p.16, cited in Thomas, 2000, p. 300). This speech was seen as an accompaniment to children's play in a variety of circumstances. All the categories of private speech, with a variety of play activities, were observed in children's play. One outstanding feature was that often the private speech was expressed when the child was essentially playing alone (solitary or parallel play) even although there were other children or adults present. For example, David spent much of his time in solitary or parallel play which is when the observations of private speech were documented.

There is an element in private speech which shows that the child is totally immersed in their thoughts and actions. Behnaz, for example, did not notice that I was sitting behind her as she told her story. Selena seemed oblivious to me as I sat fairly close by and she continued to mix sand and sing (hum) in imaginative play.

Private speech remains unnoticed in many cases. Adults in the study did not generally respond to the child's private speech. In discussions with teachers it

was acknowledged that teachers often do not hear the child's speech. The very nature of private speech is that it is said in a way that does not invite or require a response and is usually said quietly.

Vygotsky noted that if children are not successful in self-scaffolding through private speech they will then turn to a peer or adult for help (1978). This was observed when Ariel said *I can't fix it* as she tried to use a game and then after a pause turned to me and said *I can't fix it*. My response then was to work through the problem with her.

The language used in private speech is clearly a tool in assisting learning. In the cases of the children in the case studies it appears that the use of private speech may at the same time be a tool for the learning of the language as well as for other tasks.

In the research on the private speech of *Jack*, his private speech was all in Korean (Barnard, 2003). This is significantly different from the findings in this research. It may be related to the age of the children and to differences in circumstances. There will also be the influence of the context of the kindergarten in that it is open-ended. Children acquire a second language through their relationships with their peers and through a natural approach to the learning of language (Krashen & Terrell, 1983).

6.16 Teachers and private speech

An indicator that teachers in the normal day to day events of the kindergarten do not generally notice or document the private speech of children is reflected in the limited response to my request for observations of private speech. One teacher out of all the teachers in both kindergartens documented private speech

specifically. As was noted in the interviews, teachers acknowledged that they found private speech less noticeable than social (communicative) speech. This is supported by the research of Deniz (2004).

One of the purposes of this research is to raise an awareness of private speech so that it can be used by the teachers to further their understanding of the child's thinking and how they can support that thinking. The strategies that I employed to notice, listen to and document the child's private speech consisted of sitting at their level, being quiet unless spoken to and recording the speech. Since I was independent, not part of the teacher : child ratio, I had a privileged position. I was able to concentrate fully on the experiences of the children and the context around me. Early childhood education environments can be filled with sound, and they can become noisy at times. The extent of this noise can obscure the sounds of the children's voices, particularly the quiet voices of children, both those who naturally speak quietly as well as children who are speaking quietly, using private speech, as they work through problems or tasks, or act out scenarios through imaginative play. In the very busy world which is experienced by teachers and children, perhaps this focus on private speech can provide an impetus for teachers to make the time to sit quietly, and fully listen to and fully notice what the children are expressing, such as private speech, through their play. There is a challenge to do this given the demand on teachers' time and to be seen to be interactive and actively responsive in contributing to children's learning. To find out what is required to make this contribution requires the time to observe, reflect, and then to respond. In recognizing that private speech is noticed under circumstances when the teacher is able to fully observe and listen to the child, the question is raised for further research as to whether this observation and reflection time is built into the early childhood programmes.

While the children in the study did not have special needs other than that they were from diverse language backgrounds, this study has raised an area for further consideration. There is an opportunity for additional research to investigate whether private speech could be used by educators to assess the thinking and experience of children with special needs (for example giftedness, or autism, or behavioural or learning needs) and potentially provide further support for these children.

6.17 Summary

Analysis of the results from the case studies shows clear evidence that children between the ages of four and before the age of five use private speech in a variety of situations and in a variety of ways. In both kindergartens there are examples of each category of private speech except that 'other' remained an empty category and was replaced by singing or humming. Children use private speech for self-guidance, to describe their actions, to express an emotion, to sing, to tell a story, to play imaginatively with objects that become 'real' and to use the language in creative ways. Private speech is used by different children in diverse ways. These are reflected in their individual circumstances and in their individual approaches to life and learning.

The finding in this research that children use the language of the kindergarten exclusively in their private speech, and not their first languages, is noteworthy. Whether this small study has wider implications would have to be decided through more research. This will be discussed further in chapter seven of this thesis. However, this evidence is relevant in the context of early childhood education in *Aotearoa* New Zealand. These young children have shown that they are sensitive to language and cultural environments. They, for whatever reason, make adjustments in their thinking and in their actions to the socio-

cultural and linguistic environments in which they find themselves. Their private speech, which is an expression of thought, as well as a tool for action, demonstrates this exceptional ability to tune into people and context.

Chapter Seven

Conclusion

7.1 Introduction

This research has addressed questions about language and the language experiences of the eight children in the study. In this thesis language is viewed as more than a means of communication. Language used in private speech/self-talk is a significant tool in learning, in self-expression and in supporting actions and behaviour. From another perspective, language is linked to self-identity, to heritage, to culture. This research has shown that language can shift in a context where children are immersed in the dominant language, with the result that children use the language of the centre, even when that context philosophically and pedagogically aims to support the maintenance of diverse languages.

In illustrating that language is broader and functionally more extensive than purely for communication, the research has focussed on the use of private speech and has defined this use in terms of categories (affect, word-play and repetition, fantasy play, descriptive and self-guidance, singing, and inaudible) and the associated categories (peer involvement in play; the role of the teacher; the goal/type of activity) that contribute to an understanding of the context in which these utterances took place.

The aim of the research was primarily to investigate the use of private speech by children from diverse language backgrounds. This goal was achieved to the extent that the use of private speech by the individual children and the occasions where private speech initiated and achieved a response have been documented. Clearly private speech can be a tool in children's learning and experience. It may serve to support imaginative/fantasy play, express emotions, provide a tool in working through problems and challenges and regulate behaviour, aid the

child in managing his environment, describe actions, express musical knowledge through melody and/or song, and use sounds and words either singly or repetitively.

From the observations and analysis, another possibility in the use of private speech emerged: private speech may be used to explore and learn language. In word play and repetition the use of words and the repetition of words suggest language practice. This language practice is self-initiated and self-managed in private speech. As identified by Saville-Troike (1988), private speech may be used for learning language itself. It was initially not an expectation from this research that children would even be using English and therefore the possibility that private speech could be language practice was not considered in posing the questions, yet this aspect was identified in the research.

The themes that emerged are discussed fully in chapter six. They include patterns in the categories of private speech and the choice, and use, of language.

7.2 The findings

This is a small case study based on participant observation in two kindergartens during periods in 2003 and 2004. As a small case study, the findings cannot be generalised. However, the outstanding feature of this research is that each of the eight children not only used English in their social speech, they used English in their private speech, in the expression of their thoughts. Their use of private speech was observed particularly in open-ended activities and tasks although there were examples of their private speech in closed tasks. Their private speech was mostly observed when they played alone or alongside a child or children rather than in co-operative play when the speech seemed to be social. It must be noted that kindergartens are significantly social environments – there are few

moments when space allows for children to be apart from others. To add to this, when the private speech was recorded I was in close proximity to the child, hence there was a watcher/helper close by during their private speech utterances.

The categories of speech used conformed with that of Krafft & Berk (1998) except that singing and humming was noted as significant enough for the researcher and the reviewer to decide that rather than relegating this to the category of 'other' it warranted a category of its own.

Another aspect of the research was the teachers' perspectives on private speech. It was noted by the teachers that they do not generally notice private speech which confirms my own experience as a kindergarten teacher. They stated that private speech is usually quiet and that even when they do notice it is generally difficult to hear what the child is saying. This is supported by the research of Deniz (2004). This poses questions about scaffolding to support private speech. How can teachers make use of this tool to support and extend children's learning if they do not hear the child's private speech? This issue has been raised previously and the suggestion made for more research to explore this. However, what must be noted is that a scaffold may be put in place when teachers support the child's learning outside of their private speech. For example, when a teacher uses language to describe how a task might be completed, this language may itself later take the form of a scaffold through private speech as the child uses that language to do the task or solve the problem on his own (Berk & Winsler cited in Winsler, Diaz & Montero 1997, p. 60). In these instances, when the child is using the language, the scaffold provided by an adult (or peer), the private speech is valuable on its own without a further scaffold, whether it is noticed and supported by the teachers or not.

Private speech also takes different forms within different contexts and functions. The research illustrates times when private speech led to social speech; how it

supports children's play; how it supports their acquisition of English. It therefore provides information on which to build further research to work towards greater understanding of the child's thinking and the implications of this for teaching and learning.

7.3 Reliability of the findings

As the single participant observer in the kindergarten, the onus has been on me, working closely with the teaching team and with the parents and kindergarten community where appropriate, to maintain ethical research and to confirm the findings. As the video recording proved to be less fruitful in recording occurrences of private speech this was used less extensively than planned in favour of observation notes which were analysed according to the categories in the observation form (Table 4.5 on page 113). There were ethical challenges particularly in kindergarten one as two parents did not want their children to be videotaped even incidentally.

In order to ensure the reliability of the data, ten per cent of the observation notes and ten per cent of the video recording have been examined by the reviewer. Initially in this process we worked through the interpretations of the data and discussed, negotiated and redefined aspects until these were consistently applied. The analytical tools were then applied to all the observation data. All these discussions strengthened the research findings so that the categories have been clarified and corroborated. This aspect of the research again indicates that it is the context and function of private speech which determines a category. These categories are not mutually exclusive and decisions had to be made based on context and function. For example, word play may be included in a monologue of fantasy/imaginative play. While it is noted that the child is playing with words, the context and meaning of the private speech is essentially fantasy play

and therefore fits into that category. The coding of some utterances proved to be challenging for a different reason. As discussed earlier, the coding of descriptive and self-guidance as one category is not ideal as they do not necessarily serve the same function. In future research I would critically reconsider whether this category should be combined or separate.

Although the teachers were invited to collect their own observations of private speech only one teacher did so. It is acknowledged that teachers are busy, that they have their own agendas. They were actively working with children, responding to their needs, adjusting the environment to suit those needs and following through on observations to augment and extend learning. It seems that there was little opportunity for them to deviate from their normal role. However, the observations collected by the teacher who made a concerted effort to observe children's private speech in one session outdoors, confirmed for me that the categories of private speech were clearly understood and meaningful. Her interpretations concurred with mine.

In February 2005, I visited each of the kindergartens to discuss the research findings generally with the teachers. The findings that children used only English in their private speech supported the teachers' findings that children use mainly English in their social (communicative) speech. This final meeting was useful in that it gave closure to the research. It also gave the teachers the opportunity to discuss any questions that they might have about the research. There was consensus that the research had heightened their awareness of private speech. However, they again acknowledged that private speech was relatively quiet and therefore less noticeable than other speech.

7.4 Triangulation

The essence of this research relates to the private speech of the children in the study. The observed data was acquired through a number of methods, including through video recording, and through note taking (one teacher and the researcher). The video-recordings (although limited), the extensive observations of children by the researcher and on one occasion by a teacher, as well as the interviews with teachers, served to strengthen the reliability of the findings and contribute to broader support for the data collected in this research.

The interviews with parents served to involve the parents in the research and to clarify the language backgrounds of the children and their families. These interviews did not however strengthen the data about children's general use of private speech since only three (out of seven as I did not interview Jimi's parents) parents said that they had noticed their child using private speech at home. However, the response from the parents does not necessarily indicate that the children did not use private speech. It may be an indication that they have not noticed the speech or that they felt that it was not appropriate for their children to use private speech. This was not explored further in the research.

To clarify the coding of the research data a second person reviewed and analysed ten per cent of the data obtained through video recordings and observational notes and this process strengthened the analysis.

7.5 Implications of this research

Clearly private speech is less noticed than other speech. While there is an awareness of private speech, the tendency is for it to go unnoticed in the busy, sometimes noisy environments of early childhood centres.

Piaget's question, *what are the needs which a child tends to satisfy when he talks?* (Piaget, 1959, p.1) has relevance with regards to private speech and in the generation of new research.

An understanding of private speech as instrumental to children's learning and as a connection between thought and action, should elicit greater sensitivity to this speech. One of the aims of this research is to generate greater awareness of and interest in the child's private speech. It is also to open up the discourse about private speech and to challenge what seems to be the practice that private speech is something that children just do but does not justify special attention or acknowledgement. The fact that private speech has little mention in early childhood pedagogy suggests that it is generally not regarded as a significant aspect of the child's development or learning. The intention is to challenge this view by stimulating discussions which recognize that private speech is meaningful, that it can be revealing about the child's use of language, that it can provide insight into their thinking and their needs and further, can provide clues about the effects of the environment on their learning, so that private speech is acknowledged and valued in practice.

In what may be regarded as a contradiction of the previous discussion, Vygotsky (1978) noted that if children try to work through problems on their own, with the help of private speech and still find that they are unable to do so, they will then turn to an adult or peer for assistance. Therefore, if private speech is going unnoticed, it seems that this is not critical with regards to support. Children will generally use their initiative and eventually seek help! However, responding to private speech and providing the empathy, warmth and support needed by the child are still important. In addition, an important consideration is that teachers could also be focussing on the following areas as described by Winsler & Diaz (1995 as cited in Winsler, Diaz & Montero, 1995). Teachers can use self-talk to ascertain whether the centre's tasks are challenging enough, whether scaffolding

is successful in effecting change in thought, and how successful the environment is in providing opportunities for self-regulation (Winsler & Diaz, 1995, in Winsler, Diaz & Montero, 1995).

In terms of children from diverse language backgrounds their private speech is particularly revealing. It can be used as a barometer of all of the above and also an indicator of their use of language, their understanding of concepts and their learning and experience.

7.6 Implications for further research

As the first known study of private speech in early childhood education in *Aotearoa* New Zealand this study can be used as a springboard for further research. The areas that particularly stand out as potential research areas include questions about the emergence of private speech according to the child's developmental level; about the role of the researcher for example as a watcher/helper who speaks the same language as the child; further exploration of the child's use of types of private speech; the role of music in learning, including the expression of this in their private speech; and the role of the teacher in supporting private speech.

Research which explores the use of private speech and plots the progression of private speech in relation to the child's age could clarify some of the questions regarding the age at which private speech seems to peak in young children. The findings by Kirby (1997, 1998) are in contrast to Kohlberg et al. (1968); Frauenglass & Diaz, (1985) Diaz, Padilla & Weathersby (1991). Kirby found that private speech peaks at around two years, rather than around four to five years. This needs further clarification through further research.

My role as observer, in a ‘watcher-helper’ role and as the speaker of English rather than any of the other languages of the children may have had implications for the child’s use of language and private speech. A research study in which the observer speaks the same language as the child being observed would cast new light on this.

Wider research in the ECE *Aotearoa* New Zealand context is needed to explore the role of private speech of young children in these environments. This research could be based on a number of areas including using the categories identified by Krafft & Berk (1998) (used in this thesis with modification) to generate an understanding of the private speech of children from English backgrounds in English medium environments

Another aspect which featured in this research was the extent of singing and humming. The role of music in learning is well documented, but the expression of music through private speech needs further research. Singing and humming were both solitary activities and also generated social connections. Children in the study composed songs (albeit short songs) based on word play, they hummed melodies, echoed songs to each other from one end of the room to the other, and sang short duets spontaneously. The role of music as cognitive script; as spiritual connection; for language play and for patterning, are interesting aspects and could form the basis for further research. In Saville-Troike’s hierarchy singing was positioned in the lowest category as self-stimulating (Saville-Troike, 1988) whereas I am arguing for singing to be investigated further to understand this occurrence more widely and deeply as an indicator of and contributor to children’s learning.

This thesis has investigated the use of private speech by children from diverse language backgrounds in English medium kindergartens and found that these children use English as the language of their self-talk. Although the

kindergartens pedagogically and philosophically favour balancing bilingualism, the finding that children use private speech in English rather than the language of their homes, suggests that the context may not effectively foster language diversity. More research is required to explore this occurrence. However, it has been noted that the kindergartens, in effect the teachers in the kindergartens, actively sought the involvement of the parents and *whānau* in their children's learning. The next step would be to explore how parents can be encouraged to use their own language with the children. For example, in the literacy initiative promoted by one kindergarten, a provision of books in the child's language would have been an opportunity for parents to share stories in their own language with their children. It is further recommended that all early childhood centres should address (or re-address) the issues of diversity and develop (or re-work) a diversity policy to address cultural understanding at the deeper level as described by the Education Review Office (2004b).

In spite of the fact that there is no official language policy in *Aotearoa* New Zealand, it may be argued that the journey within educational contexts to accommodate and develop opportunities for multiple languages and literacies is emerging significantly. Finding ways to encourage these opportunities is particularly possible through the kindergarten environments, through the initiative of teachers who encourage parent participation and the parents, *whānau* and caregivers who respond. It will be more of a challenge for centres where the children's parents and *whānau* are less able to participate in such activities. However, early childhood educators work in creative environments and, it may be argued, are accustomed to finding creative solutions to problems. Therefore, it is hoped that finding solutions to these challenges is ostensibly possible through divergent responses. One obvious opportunity is through the employment of teachers who speak one or more languages of the children at the centre.

Teachers have enormous responsibilities in their work with young children and their families and the work that they do contributes to new approaches and pedagogy. In order to support teachers and families, more research is needed to address linguistic and cultural diversity, and the experiences of the teachers and families within the diverse educational contexts in the early years.

Additionally, as discussed earlier, research on the role of the teacher in supporting private speech could open up an inquiry into how teachers can make quiet, reflective time to observe children in their own 'private' cognitive spaces of private speech, within the busy early childhood contexts.

7.7 Terminology: Egocentric speech, private speech and self-talk

As was noted by Vygotsky, children's private speech is based on an awareness that their speech is understood. Private speech develops out of social speech. It is more meaningful to children because it is understood. Therefore the notion that it is considered 'private' seems to be a contradiction. Although it has been identified that private speech is not intended for communication it is also not intended to be hidden. It is talk for the self but it takes place from a social and socialized perspective: the child as a social being.

The terms egocentric speech and private speech are used extensively in this thesis because these are the terms used in the literature in different as well as similar contexts in this thesis. My preference, however, based on the nature of the talk that I have observed in this research and based on this discussion, would be to use the term self-talk. Kirby's description further strengthens my preference for the use of the term self-talk. She says that this speech is *overtly directed to a young child's self* (Kirby, 1997, p. 4) which implicitly may also

support the term 'self-talk'. Kerr (1993) also uses the term self-talk but the term used predominantly by contemporary researchers is 'private speech'.

In keeping with previous literature on this topic, private speech is the term used predominantly in this thesis. However, the intention of this discussion is to signal that it is timely for the label to be reviewed and reconsidered.

7.8 Concluding comments

This research study has involved a privileged glimpse into a sub-domain of the child's thoughts and learning. It has provided insight into a phenomenon that is largely under-acknowledged and under-utilised as an indicator of the child's wellbeing, belonging, communication, contribution and exploration in practice. It has also provided insight into the significant capacity for learning and the adaptability of these children.

The busy world of the kindergarten has framed the context and indicated how open-ended opportunities are embedded in the curriculum and facilitated through the innovations and knowledge of the teachers and their support systems. Overall, it has affirmed the extent to which children are invited both through the physical environment and the wider curriculum, to explore and, through their actions and relationships, to expand their learning and contribute to fulfilling their potential and their futures. However, within the freedom of this environment for learning, Tabors' (1998) message that EAL children may experience social isolation is one that should be heeded by all early childhood educators. As well as having to learn a second language, these children are also faced with social challenges. David's lack of social interaction may be an aspect of his disposition and temperament but it must surely also be compounded by his

limited fluency in English, by the lack of partners who share his background and language.

From a positive perspective and based on the notion that bilingualism is an advantage, it is hoped that these eight children will be supported by their families and communities both in educational and social contexts, to maintain and develop both their heritage languages and English.

It is also intended that research will prompt greater support for and acknowledgment of private speech both in theory and in practice. Understanding the role of private speech/self-talk in the child's thinking and learning may add another dimension of knowledge of the child's thinking and language to teachers' practice. This research has aimed to 'open a window' into the child's thinking and learning and in so doing perhaps initiate, or further acknowledge, the need for spaces for quiet reflection, for the need for educators to take the time to listen and to watch, within the busyness of the early childhood environment.

In spite of many years experience as an early childhood educator, and therefore with an expected reduced capacity to be surprised in an ECE context, this research study has astounded me in terms of the realisation of the enthusiasm and adaptability of these young children through their private speech/self-talk. These children bring to their learning, both their learning through language and their learning of language, energy, determination and creativity in ways that are at the same time different according to the individual and similar in terms of a community of learners following patterns of universal principles of learning, as they adapt and make sense of their worlds. One of these principles is that young children do use private speech, another that their meta-linguistic awareness is sensitive enough to a particular context to cause them to switch from their home

language to the language of the centre. They effectively adapt to the context, the style and the community of the environment.

These skills of adaptation are significant: This adaptability, even to switching to the dominant language of the centre, implies strength and determination.

In closing, it is acknowledged that these children have the advantage, in spite of the challenges that are intrinsic to this, of exposure to more than one language. There is potential for them to be competent bilinguals, or multi-linguals, with the appropriate support both in their homes and in their social and educational experiences. It is hoped that these children will be encouraged to talk their talk whether that is through their private speech (as it develops to become predominantly inner speech), or their communicative speech. It is further hoped that they will be encouraged to use their own language or the other languages, perhaps one or more, that they may encounter as they develop and grow in *Aotearoa* New Zealand or wherever they find themselves to be in the multilingual global village.

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Appendix one -- Glossary

<i>Aotearoa:</i>	The Māori name for New Zealand.
ECE:	Early childhood education.
Education Review Office (ERO):	The department which officially reviews and supports standards of practice in education in <i>Aotearoa</i> New Zealand.
Decile one:	This indicates that a school or kindergarten is ranked at the lowest socio-economic scale according to the New Zealand Ministry of Education and requires maximum support (Ministry of Education, 2004).
Montessori:	The Montessori Method involving both the materials designed by Maria Montessori to promote children's 'work' and the philosophical and curriculum approach to early childhood education and care (Saracho & Spodek, 2003).
<i>Pakeha:</i>	Māori term for people of European descent (Barnard & Glynn, 2003).
<i>Palagi:</i>	(Samoan) a term used to describe New Zealanders from European descent (Barnard & Glynn, 2003).
Reggio Emilia:	Early childhood education and care in Italy which uses the emergent curriculum with the child as a starting point within a vision of children who can act and think for themselves (Devereux & Miller, 2003).

Steiner:	The Waldorf and Steiner curricula based on the philosophy and work on education of Rudolf Steiner (Devereux & Miller, 2003).
<i>Te kohanga reo:</i>	Māori language nests for pre-school children (Barnard & Glynn, 2003). This movement was initiated by Māori to ensure the survival of the Māori language and culture (Ministry of Education, 1996).
<i>Te reo Māori:</i>	The Māori language (Barnard & Glynn, 2003).
<i>Te Whāriki:</i>	The national bicultural curriculum for early childhood education in <i>Aotearoa</i> New Zealand.
<i>Tikanga:</i>	Preferred customary practices of Māori (Barnard & Glynn, 2003).
Treaty of Waitangi <i>Te Tiriti o Waitangi:</i>	The Treaty between the Crown and Māori (1840).
<i>Whānau:</i>	(Māori) meaning extended family. This word has become well used in early childhood education as the role of extended family in the lives of the children and the community has become more acknowledged.

Appendix two -- Teacher Interviews

In two semi-structured interviews which took the form of a professional discussion the following questions were included:

Interview 1.

Question i: Do you have anything to discuss regarding the research:

Teachers at both kindergartens said that they did not have any issues regarding the research and that they would be interested in the results once these had been analysed.

Question ii: What are your experiences of diverse languages in the kindergarten:

All teachers at K1 and K2 indicated that they had at least some prior experience as well as the current experience of teaching in diverse language and cultural contexts.

Question iii: What have you noticed about private speech?

K1: They sing songs from church to themselves - in Samoan.

K2: I have heard private speech but it's not clear what is being said or even what language is used whether it is the home language or English.

One teacher acknowledged that they should value private speech more, allow children to get out what they want to say at mat-time for example.

Question iv: Do you have any issues or experiences related to language issues that you wish to share?

K1 and K2: None identified.

Question v: What are the challenges of diversity for you? What have you noticed about the use of language?

At K1 there was a concern that: *Children's names are changed to English names rather than using their birth names.*

(This is something that the parents or *whānau* do when they enrol the child.)

K1: When children thought that there was no teacher around they talked to each other in Samoan. However, they sing to themselves in Samoan [when a teacher is nearby].

The following anecdote was related by a teacher who is English speaking but is learning to speak Samoan: This teacher used Samoan words to a Samoan child expecting that the child would respond in Samoan and that this could contribute to encouraging the use of Samoan in the centre. The response was that the child merely smiled but did not continue a conversation in Samoan. The interpretation of this by the teachers was that the child was amused by the teacher's efforts but that she regarded the teacher's role as to speak English and not Samoan.

K2: Sometimes I have to decipher the children's speech and work through what they actually want.

K2: Teachers have found that children who are new to a centre and to the language are quietly spoken.

K1: Children who don't know English use body language to communicate for example, pulling the teacher's hand.

Children don't use their own language because they know that the teachers won't understand.

K1: When children speak to other children in their own language it was a kind of home connection - referring to something outside the kindergarten.

K2: A teacher noticed that children speak Samoan in the family corner.

All teachers celebrated diversity and felt that children should be encouraged to use their own languages.

(Anecdotal comment: Researcher and child in kindergarten two: *I asked a Samoan child what 'flower' was in Samoan. She told me to ask teacher B (who was palagi (European descent) but could speak a few words of Samoan). This suggests that this child believed that this palagi teacher could speak Samoan yet the extent of the language that I heard being used by this child was all in English. It is possible that this child assumed that English was the appropriate language to use in the kindergarten environment.)*

Interview two

At the second interview I asked the teachers in kindergartens one and two the following questions:

Question vi: *In your teaching you use strategies to support children's transition to a new language and cultural environment. Can you describe some of these?*

K1:

Establishing a rapport with the parents and whānau.

Parents are invited to stay in the kindergarten as long as they like.

Photos of children are displayed on the wall so that children can see themselves as well as the other children in the kindergarten.

They had a parrot puppet who repeats the words that the children say. A girl who was Tongan initially spoke to the puppet in Tongan but after time used only English.

K1 and K2:

Teachers also used music and drama to support different languages and cultures. Teachers followed up on the child's interests for example if they were interested in a snail that they have found in the garden, this would be explored more fully through books, through setting up a terrarium etc.

The teachers said that for children who are new to the kindergarten or who have not yet established friendships, they sometimes initiate connections with other children and encourage the formation of relationships as well as encouraging peer teaching and learning.

Question vii: *Do you have any observations of private speech that you can share ?*

K1:

Teachers had noticed play phone conversations which took place in English even though the child was from a different language background.

K2:

This research has alerted teachers to private speech but they found it difficult to hear what the children were saying.

Question viii: *Do you have any issues or experiences related to research issues or this research that you wish to discuss?*

K1:

Children don't expect to understand each other. They use nonverbal communication eg a flick of the head. They are used to reading nonverbal clues. It's important to say children's names properly.

Question ix: *What does Equity Funding mean for you?* This question was raised formally because teachers had mentioned informally that they received equity funding. This is relevant to the research because Equity Funding could mean the difference between having an additional teacher who can speak additional languages or a language of the kindergarten children and therefore support their bilingualism, or not.

K1

It allows us a full-time teacher assistant for 20.5 hours a week.

It allows us to work with the children and to give extra support in language and social needs. It allows us time for conversations with children; to buy resources and it also subsidises trips so that we have excellent ratios, often 1:2.

IBM donated our kindergarten a computer system

We now have quality furniture which we could not have afforded.

We no longer have to apply for grants to put us on a par with wealthier kindergartens.

We are able to purchase decent folders for children and to keep up to date with photos for the folders.

Both K1 and K2 indicated that these additional funds had made a significant difference to teaching, including buying in hours of teacher aide/qualified teacher time.

Question x: *And the policy to ease the transition from kindergarten to school?*

(This question was raised because both kindergartens were located next to primary schools and many of the children who attended the kindergartens would attend these adjacent schools).

K1 and 2:

Children go for school visits.

K2:

The teacher (new entrant teacher from the English medium primary school) comes to the kindergarten once a term and talks to parents about a topic related to school.

Appendix three– Recording and Analysis Form

Name of child and date	Where?	Private speech type: Affective/word play /fantasy play/descriptive and self guidance/inaudible/other	Type of speech and child's name	Who is in close proximity of the speaker?	Name of recipient if social speech	Comments on context:
David 24/5	Block corner	Joslin,look! Sp	Social David	Joslin was walking past & Researcher (R)	Joslin	Joslin commented on what David was doing and he looked happy: social speech
24/5	“	Click clock big one/ Click clock big one/ Click clock big one/ Click clock big one/ Click clock big one/ Wp	Word play David	On his own on the mat(block corner) R		Building with blocks Talking to himself-appeared to be enjoying the sound of the language
24/5	“	Yes!/ Yay!/ Aff	Affective David	On his own R		Piling the blocks on top of each other
24/5	“	Big one./ Dsc	Descriptive/sg David	“On his own R		Lined the blocks up – identified that one was larger than the others
24/5	“	Big one./ Dsc	Descriptive/sg David	On his own R		Lined up long blocks next to each other
24/5	“	Started counting the blocks: 1,2,3,4,5,6,7,8/ Sg		On his own R		
“	“	Used expressions like: Wee /(rolling the block down the roof)fp Ho!/(as they slid down)aff Ho ho ho ha ha ha/wp Hau hau hau /(repeated) /wp	fp aff word play David	On his own R		Fantasy play and word play Totally immersed in word play and in exploring the block play

24/5	“	Is a car is a car car car/ Is a car is a car Is a car car car/ Wp/singing	Word play David	On his own R		Walked off the block corner mat singing is a car is a car is a car car car and at the other end of the room was still singing
24/5	“	Song adapted: Car car big/ Car car big/ wp Then sang bits of the alphabet song: CDFG/ sg And big big big/.....big big big/ Wp	Word play David Singing Word play	On his own on the mat R		Came back to the mat: built a bridge

