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HEARING THEIR *VOICES*:
THE PERCEPTIONS OF CHILDREN AND ADULTS
ABOUT LEARNING IN HEALTH EDUCATION

A thesis
submitted in fulfilment
of the requirements for the degree of
Doctor of Philosophy
at the
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by
MARGARET JOYCE SCRATCHLEY

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ABSTRACT

Children were the central focus of this study which was grounded in a belief that children's *voices* should be listened to and heard, in particular about their perceptions about their health and health education in schools. Also heard in this study were the *voices* of adults (parents and teachers of the sample of children). Six research questions were explored related to the health knowledge children already had about health and health issues; where children acquired their health knowledge and perceptions; the aspects about their own health children were concerned about; what children most wanted to learn about in health education; the ways the views of children differed from the views of adults, and how teachers might make use of the children's views in curriculum planning.

This study was carried out with a sample of children, parents and teachers drawn from a suburban full-status primary school (inclusive of children from new entrants to Year 8). The sample (Year 3 to Year 8) facilitated coverage of the *voices* and views from young children to young adolescents in response to the research questions.

The theoretical perspective lay in the use of grounded theory. Ideas were discovered and formed as data were interpreted. In this study children provided pictures of their knowledge and understanding of health through their responses to two draw-and-write tasks. Both children and adults then expressed their views and ideas about health education and learning about various health issues in informal conversational interviews. Other methods used were parent questionnaires and Chi square testing of some results.

The major finding was that the sample of children did have views on health education and could, and did, express them. It was also found that adults were surprised when they realised the extent of the issues about health with which their children were grappling, or at least thinking about. These results indicated a need for teachers and parents to rethink some of their own assumptions about what children need to learn about in health education.

It was also found that children were disappointed that teachers did not meet their expectations for health education. There were reservations about the way health education was presented to them; the type and the amount of information was thought inappropriate, and health education did not include issues in which they really had an interest. Although both adults and children thought health education was important, it appeared that children from as early as Year 5 were developing a more critical view about the importance of health education and what health education should include than did adults.

From the findings there are a number of implications for the health curriculum in schools, not least that classroom content for health, objectives and the process of delivery should be done in partnership, with adults and children working together so that programmes become more appropriate and children's concerns satisfied.

The findings also indicated that more research is needed, particularly in New Zealand schools, about health education in general and the way it is presented at school, curriculum construction and implementation, and the more topical health issues in which children appear to have an interest. It was also revealed that research is needed into gender issues, particularly the relationship between what boys and girls are interested in learning about, and also the power relationships between those who determine what children should learn and the children themselves.

Finally, this study has contributed to a growing body of international research which has investigated the extent to which children possess knowledge that is of value in classroom teaching and learning in health education. The evidence in this study is that children do indeed possess knowledge, they can express themselves, and in so doing, can contribute to classroom curriculum construction and curriculum design.

Dedicated
with love and in memory of
my father

Lt. Colonel H. C. P.
Scratchley

You always listened.

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The completion of this thesis can be compared to arriving at a final destination after a long journey. This particular journey was largely motivated by the *voices* of two people, who will never know what an impact they had on me as a school girl at secondary school. The messages received from these two people helped me to shape this research study.

First, the careers officer who advised my parents that because of the disrupted nature of education for children from military families it would be better that I left school at 16 years of age. An academic career, my parents were told, was out of the question. Fortunately, my parents refused to take this advice seriously and encouraged me to study for both ‘O’ level and ‘A’ level examinations as an entry into teacher training.

The second person was a teacher, who, when marking my essay on the geography of the Middle East, returned the essay with a red-line drawn through it. The written comment read “not taken from the text book”. The essay had been written based on first hand experience after having lived in the Middle East. The comment alerted me to the fact that a real and lived experience counted for nothing, and that knowledge from out-dated text books was of greater worth. From that moment my learning came about by memorising everything from set texts and churning it out for examination purposes. This type of learning taught me very little, but it did get me to teachers’ training college, where I determined that I would do things very differently in my classroom.

So started the journey. Along the way I have been inspired and motivated by many wonderful people and teachers and my gratitude goes out to all of them. Since those early negative beginnings many people have listened, and some have heard.

To my parents, thank you. You never failed to support me even when the goalposts appeared to be too high. You helped me to put things into perspective and make those goals attainable. Mum, you will travel out to New Zealand and share this moment with me. Dad, how I wish you could be with me. I dedicate this thesis to you.

To the principal of the school in which this research study took place. It was a busy time of the year with constant interruptions already disrupting teacher time during a period of new national curriculum implementation, but you gave me access to teachers and children willingly. Thank you. A special thanks must go to the sample of children, their parents and their teachers. You made my task easy and also so rewarding.

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They say that animals are a human being's best friend. While most people look to support from their wider circle of friends, my furry friend has been a constant

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I feel that I have now completed this particular journey, and, perhaps after a short respite, will embark on another. Thank you to all who helped me along the way.

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CHAPTER ONE

Introduction

1.0 Introduction

Children hold and express their own views and opinions about almost everything. They also have their own views and concerns about many social issues. Yet they live in a world where decisions are largely made for and about them. In the context of the school and, in particular, the content of the taught health curriculum (the backdrop for this study), policies are formulated and programmes implemented without children being consulted. This view is supported by Mayall (1996, p. 80) who stated, “By and large, the curriculum of the school is designed and implemented without regard for the knowledge children bring to it.” Mayall further suggests that the newly introduced national curriculum in England “explicitly denies children’s knowledge and experience as a determinant of the agenda” (p. 80). This, too, has been the case in New Zealand, with the development of the key learning areas of the national curriculum documents. The realisation of how little time we, as adults, give to listening to the *voices* of children provided me with the incentive to embark on this particular study.

1.1. Beginnings

So where does one start? When reflecting on this basic question I journeyed back over my own teaching career to put things in perspective. What had motivated me? What were my questions and thoughts? Why, and what did I do with them? Perhaps a rather egotistical beginning, but I think that there were some poignant

events during the course of my career that shaped the ideas that I have about my own approach to teaching and, therefore, this study.

I see myself as a games innovator. My teaching career as a physical educator started in a big comprehensive school in the northwest of England, with a large percentage of West Indian and Asian immigrants in the student population. It soon became apparent to me that the style of teaching and the usual approaches to physical education activities were not appropriate for these students. For one thing, there was a difference between the cultures regarding appropriate dress for physical education. I started to listen to the girls and attempted to understand some of the dilemmas they were facing as recent immigrants into an English school system. Thus began a lifetime of adapting and changing circumstances to better suit the particular needs of individuals. I began to develop concepts and strategies which placed more emphasis on students' interests and needs and which were based on the idea of listening to the *voices* of these young people to discover their interests and needs.

As my own sporting career came to an end, I turned to coaching athletes with physical disabilities. Once again, adaptations were necessary. My own knowledge and coaching style were challenged. I had to view an activity from a different perspective. The ultimate goal, to achieve at the very highest level, was still the same. The means of getting there was what had to be modified to suit the particular athlete. There was also a realisation that there were many young children in our schools who, because of their physical disabilities, were often sidelined. If we were to spend more time adapting the physical environment and the activities in the schools, and, if we were to watch and listen, these children could easily be included in physical education and sport. With a little creativity from the staff, the children could acquire the physical skills to enable them to enhance their independence, and, if they desired, follow the increasing number of paralympian role models into their chosen field of sport. I began to visualise the activity through the eyes of the individual, breaking the skills down, pulling them apart and gradually modifying the activity to suit individual needs.

When I became a health educator, teaching student teachers, I was not really surprised to find that the same strategies that I had used in physical education and

sport could be successfully applied in teaching health education. Very often a health message or behaviour could be better understood through games playing. Emotions and feelings could be expressed through music and art work; particular health issues could be enhanced or expressed through puppetry, dance, drama and literature, and children's own stories could provide a starting point. I learnt that if I could find an activity that children responded to, it could be employed to explore a particular health issue. This is not to say that I have invented anything new, but employing these strategies certainly encouraged children to better understand and enjoy learning. Children began saying that learning about health was fun. They were interacting at their own level of understanding. They were more willing to talk and express themselves, and to put things into context. This is a far cry from the traditional mode of transmitting health knowledge and facts to children and expecting them to respond with a change of behaviour. Children were now practising "the talk" and realising the consequences of actions to their own lives.

A further motivating factor for me was the work of television comedian Bill Cosby, who used to interview young children and gain their views and perspectives on a host of world and personal issues. Through comedy, but also through the ability to communicate, Cosby drew out children's thoughts, views, beliefs and interpretations. Little did I know then just how much this would influence my own teaching and the presentation of contextual learning experiences for children, adolescents and for tertiary students. Listening to others can give an observer, and did give me, a tremendous feeling for the way in which life is observed and understood.

Perhaps this preamble will allow the reader to better understand why I have embarked on this particular study, and why I have chosen the research pathway that I discuss in chapter three. My one concern through all of this was that the approach taken might not stand up to academic scrutiny. Exploration of the literature (Chapter Two) served to allay those fears.

1.2. The study and topic

Children present a unique challenge to educators. Their view of the world is what they want to see, what they know and want to know, how, and why they

interpret experiences, and the means by which they communicate these experiences. Wiley and Hendricks (1998) suggest that children's views and perspectives often differ from those of adults. This study will explore the knowledge and perceptions of a small sample of New Zealand children about health and their learning in health curriculum, and whether the perspectives of children differ from those of their parents and teachers. Aggleton, Whitty, Knight, Prayle, Warwick and Rivers (1998) state, "Now, more than ever, there is a pressing need to know what children and young people think about health issues, and how these ideas map onto what teachers, youth workers, school nurse, parents and adults believe" (p. 213). An outcome for the teachers and the school in which the research is located is that teachers may be encouraged to listen to children and, with them, construct a more learner-oriented curriculum.

1.3. Context of the research

In 1993 the Ministry of Education (MOE) published the *New Zealand Curriculum Framework* which set out the foundation policy for learning and assessment in schools for pupils from Years 1-13. It stipulated seven essential learning areas. Each would have a national curriculum statement which would describe "in broad terms the knowledge and understanding which all students need to acquire" (p. 4).

Health and physical education is one of those seven essential learning areas. Although physical education has had a syllabus for many decades and a regular time-tabled teaching slot in most schools, health education has, in the past, had a chequered history. It has remained as one of those peripheral subjects which most teachers would prefer to "leave to someone else". A health syllabus was drafted for New Zealand schools in 1985 and was to have been fully implemented by October 1989. Full implementation of the syllabus lost its momentum, however, when government attention was turned to restructuring the administration of schools. Curriculum change was suspended. Consequently, the health syllabus was never fully implemented by teachers in the schools. Teacher development in the area remained

limited, and with no training in some of the more sensitive areas of the syllabus, such as sex education, many teachers tended to give the teaching of health a low priority.

The new national curriculum combined health and physical education into a common curriculum statement. In February 2001, after a two-year development period in the schools, the curriculum statement became mandatory for all children from Year 1 to the end of Year 10. This study was undertaken when the schools were grappling with, and coming to terms with, the new curriculum statement for health and physical education.

1.4. Problems for a national curriculum

A curriculum statement sets out national achievement aims and objectives to ensure that all children have access to, and study, similar core content. But such an approach is fraught with difficulties as all children are not the same and do not have access to the same life experiences. While the curriculum does give voice to the notion that all schools have the freedom of opportunity to “develop programmes which are appropriate to the needs of their students” (MOE, 1993, p.1), in reality, when a curriculum is driven by achievement and assessment requirements, it does tend to be prescriptive and, therefore, restrictive.

The government wished to increase academic rigour in schools, but the pursuit of this goal ignored those who will be most affected, namely the children. With a move toward a more prescriptive structured curriculum design (McGee, 1997), it seems that there may be a vested and dominant interest by government and the MOE, who have laid out the blueprint for curriculum. The Ministry declared that wide consultation would take place throughout each stage of the curriculum development. In a memorandum of intent (April, 1998) the Ministry clearly stated:

The draft has taken three years to write and involved considerable thought and debate by leading educators in the disciplines of physical education, health education and home economics.

However, the consultative decision-making process involved only those considered experts in the three disciplines such as teachers, health professionals,

sporting groups, curriculum experts and tertiary educators. As participants in and recipients of the curriculum, children, it might reasonably be assumed, would be considered key contributors to its construction. This was not the case. Criticisms have been levelled in both Australia and New Zealand (Brady & Kennedy, 1999; McGee, 1997) of a national curriculum framework that is dependent upon a “performance outcome model” and designed around achievement indicators to improve knowledge and essential skills. The result in both countries is a top-down model of curriculum which is prescriptive in nature and that is essentially contrived and controlled by those who have power. In this instance power and control are vested with the MOE and those who it selects to write the curriculum.

Keeping children out of curriculum construction is inconsistent with the *New Zealand Curriculum Framework* (1993). It listed nine curriculum principles, one of which suggested that children be empowered to take responsibility for their own learning. This presents some difficulty in a “top-down” model which is performance and outcome driven.

Where does this preamble lead to in terms of this research study? A curriculum that is driven from the “top” is an indication that children are recipients of pre-set knowledge and content. This poses several important questions for me as a researcher and health educator. Are children merely receptacles for receiving knowledge deemed important by others? Do children not have the ability to determine at least some of what it is that they want and need to learn? McGee (1997, p. 97) suggests that children do indeed know “what they want to learn and whether they want to learn and what motivates them to learn”. Perhaps we should refer to one of my previous statements on page 4, which suggests that in terms of selecting content for the health curriculum, curriculum planners should be listening to the views and concerns of children as well as prescribing adults’ concepts of content.

1.5. Children and health

Children have a wealth of knowledge and experience. They seem to have views and opinions about almost everything, and know better than those who are distanced from their world what it is they most want to know and learn. If it is adults who

establish and shape the national curriculum, then it should be the children, as learners, who help shape the classroom curriculum. The classroom teacher as facilitator, and in partnership with the children, should help generate and develop concepts and issues about health. I see the classroom as a vibrant place of shared learning, in which children are active participants in the planning, teaching and learning process. When a teacher attempts to place teaching and learning experiences into context, and values the children's input and life experiences, then learning is more likely to be meaningful.

This study is based on the view that learning in health education should take into account the thoughts, perceptions, prior knowledge, and beliefs that children have about health and health issues. Further, health education should be connected to the real world of children and enacted within their life and social experiences. In their study of English school children Aggleton et al. (1998, p. 213) suggest that strategies and "commonly defined priorities" may not necessarily meet the everyday needs of the children in school classrooms in the context of health education. The Ministry of Health (MOH) (1997) and the National Health Committee (NHC) (1998) defines these priorities for New Zealand children as alcohol, smoking and drugs, teenage pregnancy, safety and suicide. There is however, a need for us to probe beneath the surface, to explore and understand the real concerns that children have about their health, so that teachers and other relevant people in the children's lives may construct with them a curriculum which takes into account their needs and changing perceptions and builds on their beliefs and knowledge. Williams, Wetton and Moon (1989) comment that children bring a wealth of information and knowledge into the classroom which could provide relevant starting points for health education. My view is that too often this information is ignored in favour of the pre-determined core of the curriculum and our move towards learning based on achievement objectives and assessment. Curriculum is a process. I view it as not merely a design for the transmission of facts, but also an exploration of currently held ideas and beliefs, and the gradual transformation of these, so that sense and meaning may be applied, as new ideas and beliefs grow and mature.

Having argued that there are benefits in listening to children's viewpoints about their own health, how can their views be sought? In this study I try out two data collection techniques: first, draw-and-write tasks and second, conversational interviews. I report on the data collected and the value of these two techniques.

1.6. Conclusion

In summary, this study is about viewing children as active social beings who can, and do, shape their own perceptions of the world. This is very much in line with research by Smith and Taylor at the Children's Issues Centre at Otago University and others. Adults alone should not shape and determine the world for children. This view has gradually developed out of the events and experiences that shaped my own career as a teacher. For years I have held a firm belief that children should be participants in the construction of their own learning experiences. Listening to children, as well as listening to adults, valuing all ideas and opinions, and working in partnership will enable the construction of a more valid and meaningful learning environment in health curriculum. I take my cue from Kiddle (1999), who, in the introduction to her book *Traveller Children: A Voice for Themselves*, stated that her aim was to enable "traveller children to develop into independent learners and, through this, independent people, able to make considered choices, to stand up and speak for themselves and to act as agents in their own lives" (pp. 14-15). New Zealand is largely devoid of a research culture in school health, and it would appear timely to undertake this study, as teachers begin to develop their implementation plans for the recent health education curriculum.

1.7. Overview of the thesis chapters

In Chapter Two, I review literature sourced from writers who rationalise that children should be given a *voice*. I consider recent research where children's views have been sought and their *voices* heard, as well as research which has employed more traditional methods. I introduce the emergent discourse about children, which is encouraging research *with* them, rather than research *about* them. I introduce and

discuss literature which explores the implications and ethics of involving children as participants in research and, finally, I discuss the new methodologies such research demands.

In Chapter Three, I discuss the chosen research design and methodology, and explain the qualitative research methods utilised in the collection of data and its analysis.

In Chapter Four, I present the findings of two draw-and-write tasks which were used with the children as a participatory ‘way-in’ to the main aspects of the study. Draw-and-write is an illuminative qualitative method, which, through the drawing of pictures and writing something about them, provides the researcher with evidence about children’s existing health knowledge.

In Chapters Five, Six and Seven, the results from conversational interviews with children, their parents and teachers, are presented. Within each of these three chapters, I make comparisons between all three groups of participants, to evaluate whether the views of children and adults differ on what should be taught as health education at school, and whether there are aspects in common. Discussion is included after each complete set of results throughout, using the literature from earlier chapters to help interpret, explain and make comment on the findings.

Chapter Eight presents the conclusions from the findings of the study, and the implications for the health curriculum and teachers who will teach health education in the school. The value and the limitations of the study will also be considered, and suggestions made for further related research on the contributions children can make towards curriculum development.

CHAPTER TWO

Review of the Literature

2.1. Introduction

Nearly all children in New Zealand now attend school from five to seventeen years of age. In school, children's study is based on taught curricula, covering what adults consider is important for them to learn. In New Zealand, curriculum content is set out in seven national curriculum statements. The *Health and Physical Education in the New Zealand Curriculum* (Ministry of Education, 1999) was designed by adults; it is grounded in a belief that adults know what is best for children. The *voices* of children were largely ignored. Children's views are also missing during the consultation and decision-making stages of curriculum planning at the school level. Adults appear to make assumptions about what is valid and important knowledge, and do not ask children what they think. This is true for all curricula, and health education, the focus for this study, is no exception.

Making assumptions about what children ought to be taught and what they need to learn is not confined to schools and the curriculum. The absence of children's *voices* stems largely from societal perceptions and beliefs about children in most, if not all, societies. By and large children have been viewed everywhere as a group who need to be taught, so that as they progress through childhood into adulthood, they are prepared to take their place as adults in their respective societies.

If the above assumptions are accepted, there would be no need to enter into a dialogue with children in an attempt to hear their views, listen to their perspectives and participate with them in planning for their own learning in all areas of the curriculum. However, as explained in Chapter One, the purpose of this study is to

discover whether a sample of New Zealand children have worthwhile contributions to make about their own health and health education.

The literature review for this study has been sourced from the work of researchers who share the view that children's *voices* should be heard, particularly when curriculum planning for health education is occurring in education systems. The material chosen falls within three parameters: (a) literature sourced from those who hold the view that children should be given a voice; (b) literature about research where children's *voices* have been sought, and (c) how the research was carried out and the outcomes of that research.

Children's views about their own learning in health is the focus of the present study, and the New Zealand national curriculum statement for health and physical education is the reference point.

Curriculum construction does not just happen. In the case of the health and physical education statement a process of development occurred at three levels which McGee (1997) has described for curriculum generally. At the first level the Ministry of Education supervised the planning of the new curriculum statement. The first part of a two-way process was that a policy group of nationally selected experts was established. It produced policy guidelines for the statement, including a basic structure. This structure included general aims, strands for learning, achievement aims for each of the strands, key areas of learning for children and the essential skills children were expected to acquire in each curriculum learning area. A selected team of writers then followed the guidelines and structure to write a national curriculum statement. Lee (1992) and McGee (1997) make the point that at the national level, curriculum design is largely driven by political influence. The second part of the national process involved professional development contracts being let by the Ministry of Education to sub-contractors, who worked in selected schools to help teachers learn the new national guidelines.

At the second, or local level of the curriculum process, individual schools must implement the national document. Implementation in schools is largely determined by the way in which teachers interpret and understand the national document as

school plans are developed. Schools were given two years to adopt and write an implementation plan for the health and physical education curriculum.

At the third level, classroom teachers, guided by the school implementation plan, teach curriculum content to the children. Teachers decide how curriculum aims and content will be implemented with children. During the three levels of development the *voices* and views of children would have been largely absent. If they are heard at all, it is likely to be only at the third level.

If children are to be recipients of a nationally constructed curriculum it is important to understand the status of children as viewed by society. This is explored briefly in the next section so that the present study can be put into context.

This study is set in the context of a predominantly western society, New Zealand. A universal perspective of children is not being implied, although it is possible that interpretations and observations would be relevant beyond New Zealand. Recognition is given to the belief that within every society there is a rich tapestry of culture (Rosman & Rubel, 1995). New Zealand is no exception as it now embraces a multi-cultural society. This makes curriculum design at the national level even more difficult. A core body of knowledge for health education must cover a diverse population of children. Teachers at the classroom level are better placed than most national curriculum developers to recognise the many cultural differences, and consequently are more able to acknowledge the different values and experiences children bring to the classroom. This explains the importance of teachers hearing children's *voices* in preparing to meet the children's varied and often changing needs.

2.2. Views about children

Before exploring key aspects of the literature it is necessary to consider some contemporary views of children and childhood. These views are generally, but not exclusively, contained within the fields of history, psychology, sociology and anthropology. Some writers in each of these fields of study have held particular, and often overlapping, views of children which have relevance for this study.

There is a need to recognise that the status of children changes over time and several differing pictures of childhood have been presented by Aries (1962), Hendrick (1994, 1997), Jenkins (1998), Kline (1993), Plumb (1975), Postman (1982) and others. Aries (1962) gives a historical debate on the constructions of childhood; Kline (1993) discusses the making of children's culture; Plumb (1971) and Hendrick (1994, 1997) write about the changing concept of childhood, while both Postman (1982) and Jenks (1996) describe the disappearance of childhood. Several pictures become clear.

- the myth of childhood innocence;
- the adult as protector, nurturer, educator and moral counsellor;
- the adult as the purveyor of knowledge; and
- the child, whose role is determined by others.

Many of the views outlined above, stem from the notion of children as being always in need of guidance. Postman (1982) and others have set out a historical timeline of childhood in western society, dating from the fourteenth century. Before then Aries (1962) tells us, children were largely invisible. That is not to say that they did not exist, but Aries has suggested that age, prior to the Middle Ages, did not determine status. During the fourteenth and fifteenth centuries childhood terminated at seven years of age when children were treated as adults and shared equally in the domestic and working life of the family (Aries, 1962; Jenkins, 1998; Postman, 1982).

Postman points out that by the sixteenth and seventeenth centuries, and with the advent of the printing press and the publication of literary works, the need for education and learning was highlighted. This created a distance between children and adults, and also between other members of society who could and could not read. This effectively put children into a group who had to be educated by adults, and who also had to learn to be adults. Plumb (1975) described children as being different and having differing needs from those of the adult. Aries (1962) commented that this was a period when children were in need of protection, nurture and education.

With the rise of industrialisation and capitalism during the eighteenth and early nineteenth century, children from the lower working classes were put to work in the mills and factories, while most children from the middle and upper social class continued to enjoy a childhood. Hoyles (1989) described this period as one of adult and political manipulation, and he described childhood as a state of subjection rather than a stage of life. Postman (p. 50) believed that while school and book learning were responsible for creating the child, they also became responsible for creating “the modern concept of the adult,” and that it was here that the myth of childhood innocence was conceived. That childhood was a myth was borne out by a social system which still saw the very young child tried and sentenced for simple crimes. These are vividly described in the novels of Charles Dickens and other social writers. It was during the eighteenth and nineteenth centuries that the writings of Locke and Rousseau came to prominence. Locke, says Postman (1982), described the child as an innocent with a mind like a blank slate, upon which the teachings of the adult could be written. Rousseau acknowledged that childhood was different to adulthood, and that children, as suggested by Locke, were in need of adult guidance.

From the mid-nineteenth century and into the twentieth century the ideas of Freud, Dewey and Isaacs began to have an impact on the way in which children were viewed. In particular, Dewey (1899) and Isaacs (1930) took the more liberal view than had been considered previously, that adults must identify the needs and encourage the instincts of children so that they might prepare themselves to participate in social life.

Compulsory schooling discounted knowledge previously derived from parents, community, peer group, and personal experience. Instead it demanded a state of ignorance (Hendrick, 1997). Hendrick also points to the fact that schools expected different codes of behaviour and attitude, all of which were designed to make the children dependent and vulnerable; assumed the right to inflict punishment so that they could enforce discipline; to institutionalise the children and impose a separate identity as distinct from society, and finally, schools viewed the children as future investments.

Children, throughout the historical time-line described, appear to have gradually been moulded by adults into what society, at the time, wanted them to be. As Kline (1993) suggests, adults views' gradually began to dominate and children were forced to conform. It is not the purpose of this review to critique the many historical accounts of childhood, but as Jenks (1996) comments, it should probably be acknowledged that there were some historians who presented alternative accounts of childhood to those used as examples here. What the literature does seem to indicate is that whatever the viewpoint, considerations of children in the social order can be charted historically. Mackay (1973) argued that whether the viewpoint be from education, sociology or psychology, children have been described as being incomplete in their growth and development and that they were "immature, irrational, incompetent, asocial [and] acultural" (p. 28).

Jenks (1996) and Postman (1982) have encouraged a rethinking of childhood. Postman in particular, argued that twentieth century children and youth, through the influence of the media, television, cinema and other electronic communication, have created their own role models and agendas. Even young children are being influenced by television, other media, the world of fashion and screen idols. They are becoming more demanding of their parents who are now seeking more ways to appease them (Hendrick, 1997).

Some writers, for example Roberts (2000), believed that this signalled a message to society that young people wanted, or should be given a *voice* and identity of their own. Any change would be slow however, as schools were still essentially agents of power, dominated by structures, administrators and a compulsory curriculum designed for children by adults. Adults continued to determine what children needed to learn in order that they are prepared for an adult life. It has been argued that childhood is still viewed as a period of preparation with little room or time to listen to children's *voices*. Many recent writers claim that children remain a marginalised and non-empowered culture because of the stigmatisation of incompetence and innocence (Lloyd-Smith & Tarr, 2000; Mayall, 1996; Qvortrup, 2000; Smith, Taylor & Gollop, 2000). Because of this, children's views have been largely ignored.

2.2.1. Children's expression of their own views

Many writers believe that children should have their own views and ideas about what they should study at school, but this view has not been particularly popular in western societies. As Mayall (2000) pointed out, children have been taught to fit in with society and not the other way around. Because adults, and institutions such as schools, were deemed to have superior social and academic knowledge, and therefore should assume responsibility for determining what knowledge that children should be exposed to at the different stages of their development, any knowledge or personal views that children had were seen as being unreliable, and children as a group, incompetent.

The dominant view was that children were objects that needed to be socialised. It was believed, until recently, that children were passive innocents who were in need of adult control and discipline. In common with the ideas already discussed, Lloyd-Smith and Tarr (2000) comment that the power of adults over children “preserve[d] the construction of childhood as a rehearsal for adult life” (p. 63). Mayall (1996) also suggested that sociology had traditionally neglected children as a social group in their own right, seeing them, rather, as members of a larger unit of family, or as members of larger institutions, such as schools. In sociology, children were regarded as non-persons until they had been socialised, and until they were ready to become adults. Lloyd-Smith and Tarr commented that within the family structure children were taught, guided and nurtured along the path to adulthood, and although children had their own social worlds, they were still largely dependent on others within an adult world.

Alderson (2000) points out that consulting with children and listening to their points of view has had its critics. Some believe that if adults allow children to tell them what to do, they will lose control. They also believe in their superior adult knowledge. Others think, like Piaget (1952), that children are not capable of logical thought before the age of seven years, and that they are inventing, rather than

discovering, their own ideas and thoughts. Alderson suggests that those against encouraging listening to children's views feel a sense of "mistrust and a sense that young children cannot understand much, or give reliable accounts, or think sensibly" (p 70).

As a result of this, children's views have not been heard and they have, by and large, not been included in research. There have, however, been some adults who have advocated taking into account children's *voices* and views. For example, Bronfenbrenner (1979) challenged those who researched children in clinical settings to work with children in their own familiar environments where they might more readily share their understanding of what adults were asking them to do. Bronfenbrenner encouraged the participation of children, not only in research, but also in their own development. Such a change in attitude has paved the way for others working with children to listen to children's *voices*. Lansdown (1994) makes the critical point that if children's views and *voices* are to be heard they must be listened to and they must be taken seriously.

2.3. Children's voices

Many researchers now recognise children as social beings rather than members of a voiceless group being prepared to become legitimate participants in an adult society. James and Prout (1997) argue that children are not as incompetent or innocent as was once thought, and they suggest that a new paradigm is emerging that gives children a *voice*. In New Zealand too, Harrall and Hellewell (2001) argue that children and youth should be heard. They support their argument with this quotation from William Crockett (in their Health Promoting Schools Newsletter editorial, p. 1) "Our lives may be different but our concerns are the same. Listen to our voices – they are the voices of the future". Hirschman (1970) points out that decisions made by others may be accepted without question or opinions may be voiced in order to facilitate change. This research gives greater value to obtaining children's voices and listening to children's perspectives so that in partnership with adults, changes may be facilitated about learning content in health education.

The research of Christensen and James (2000), James and Prout, (1997), Mayall (1994, 1996), Roberts (2000), Smith, Taylor, and Gollop (2000), Waksler (1991) and others, now seeks to find out how often children have been allowed to give and talk and be listened to about their views. Smith and Taylor (2000) ask how many parents and teachers realise that “children’s *voices* and experiences are embedded not only in their own particular family, school and neighbourhood contexts, but in the context of the wider society?” (p. ix). They argue that when children’s *voices* are listened to and understood adults are likely to gain a better insight into the children’s world, concerns and issues.

Waksler (1991) infers through her writings that listening to children, watching them at play and observing individual group interactions can lead to learning something about them as individuals and about the social world in which they are interacting. Smith and Taylor (2000) comment that traditionally children have always been “voiceless objects of concern, and [are] not understood as competent, autonomous persons who have a point of view” (p. ix). Small groups of health education researchers working with children, of whom McWhirter, Wetton, and Williams (1996), Wetton and Moon (1988), Wetton and McWhirter (1998), and Williams, Wetton, and Moon (1986) are the most prominent, have all encouraged children to have a *voice*, and have argued that children, when given the chance, have the very real ability to:

- put things into context so that they have meaning for them at precise times in their lives;
- reflect on what they want to learn;
- be critical about what they are or are not learning; and
- tell us what they want to learn more about.

If this approach is adopted, classroom teachers, when constructing the taught health curriculum, can do so in partnership with children. Postman and Weingartner (1969) suggest that in this way learning may become more meaningful to children in the context of their own lives.

Giving a *voice* to groups who were previously silenced or marginalised, such as children, has drawn its critics as well as its advocates. Giving a *voice* to those who were previously unheard is to erase “the text that writes the world of which it speaks” (Moore & Muller, 1999, p. 203). They point out that giving a *voice* to such marginalised groups as children is an attempt to “delegitimise” the dominant knowledge and replace it with something of a lesser significance (p. 193). Such feelings against giving children a *voice* were felt early on in her research by Waksler (1991). As an advocate of allowing children to have their say, Waksler observed scepticism of her early work with children from traditional social researchers. Comments such as “To take children’s ideas, beliefs, activities and experiences seriously, as real and as embodying knowledge, is to risk being taken as a fool” (p.62). Mandell (1988) found the same criticisms levelled at her work, and both had their roles as adults and sociologists questioned.

2.3.1. The voices of change

Kincheloe (1996) believes that children today will find it hard not to be influenced by the post-modern condition of electronic saturation. As Postman (1982) observed, children now have increasing access to television and other forms of media; they have use of new forms of technology and can down-load their knowledge from a variety of web-sites; and they have access to increased adult knowledge. Many writers, such as Buckingham (1994) and Mayall (1996) see the social worlds of children today as being far more sophisticated than those of children of a decade ago. The fears, worries and issues they face are more complex than in previous generations. They are emotionally and sexually more mature. Today’s children no longer wait until parents and teachers decide what they should know and at what age. Today many of them probably have access to sophisticated adult knowledge.

With all this information available perhaps the traditional methods of research, teaching and schooling are outdated. Is it not time, as Kincheloe suggests, that the silence of children about so many things was ended? Why do we as adults, not take note of children’s extended knowledge? Why do we not ask children for their views

and perceptions? Why do we not give them a *voice*? A key to these questions might be found within the particular views of childhood previously discussed.

A picture has been painted of children as a dis-empowered group, who have been marginalised and manipulated by the societies in which they live, and the rights of children, largely ignored. Such rights are discussed in the following section.

2.3.2. Giving children a '*voice*' and their right to be heard

At the time of writing there is no official mandate in New Zealand which gives children the right to participate in decision-making about educational matters. Sinclair Taylor (2000) believes the same to be true in England. Ruddock, Chaplain, and Wallace (1996) believed that when improvements to the school and learning environments were considered, children's views should be sought. They also believed that those views should be acknowledged as being sound and capable. But in New Zealand and Britain, as far as we know, there seems to have been scant attention given to a basic right of all children – a right to be heard.

Although there is advocacy of a need to recognise children as capable participants in society “there are powerful and cultural tendencies to keep them in their place” (Lloyd-Smith & Tarr, 2000. p. 62). As previously mentioned, the process of socialisation seemed to reflect the way in which the developing child was recognised within a given society. More recently there has been a gradual recognition that the conditions for all children are not ideal, and that as a group, children have very few rights (Lansdown, 1994).

The 1989 United Nations Convention on the Rights of the Child (UNC) was a turning point in the matter of children's rights and effectively altered the way in which children were viewed at least in some societies (Lansdown, 1994; Moore, 1999; Sinclair Taylor, 2000). The 1989 UNC “provides a comprehensive framework of civil, political, cultural, social, economic and humanitarian standards against which legislation, policies and practices can be measured and their ongoing compliance monitored” (Smith & Taylor, 2000, p.12). The basis for their claim lies in Article 12.

- Article 12: States parties shall assure to the child who is capable of forming his or her views the right to express those views freely in all

matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.

(United Nations, 1989).

Sinclair Taylor (2000) suggests that the previous 1959 United Nations Declaration of the Rights of the Child had done little to provide children with a direct *voice* in decision making, this right being retained by adults. By contrast, the 1989 UNC heralded some criteria for standards to protect the rights of the child. Children were recognised in their own right, and of having “views and ideas about their own lives and of having a right to genuine participation in decision making affecting them” (Sinclair Taylor, p. 22). This is not to say that all countries have adopted the UNC, although by March 1994 it had been ratified by 156 countries (Lansdown, 1994). By 1997, 159 countries had committed to the principles of the 1989 UNC and improving the welfare of children (Boyden and Ennew, 1997).

Smith and Taylor (2000) have written about the uniqueness of New Zealand’s social policy for children. In 1989 the then government passed the Children, Young Persons and their Families Act (CYP&FA) and in 1991, the Child Support Act (CSA). This legislation placed a greater responsibility on the family for the care and protection of children, and less on government agencies. The shortcomings were that economic and human resources fell short and many family situations were just not equal to taking on the responsibility by themselves. While by no means perfect, section 11 of the 1989 New Zealand CYP&F Act does make some provision for children to have their views heard. However as Smith and Taylor point out, “New Zealand’s legal framework, governing a range of family law issues, [still] places limited emphasis on the *voice* or active participation of children” (p. 12).

In 1995 the CYP & F Amendment Act (sections 10 and 11) gave some legal force to the view that children have the right to be heard and to make their views known:

- Section 10: Satisfy itself that the child or young person understands the proceedings...
- Section 11: Encourage and assist the child or young person to participate in proceedings...

Freeman (1996) believed that New Zealand policies fell short of compliance with Article 12 of the UNC and suggested that children's *voices* were still largely silenced in preference for hearing the *voices* of adults. Decisions were still being made for children by adults. Oakley (1994) argued that legislation has done very little to improve the position of children in society. Most legislation relates to the family, and the child is incorporated within this structure. Just how successful the UNC (1989) or New Zealand legislation has been in giving children a collective *voice* is debatable.

Since this study is situated at the school level, the rights of children should be considered within the school context. According to some researchers such as Aggleton et al. (1998) and Wetton and McWhirter (1998) there is a growing view that children should be more involved as participants in structuring their own learning. However, the debate is still open as to whether this has any greater impact upon children's own learning. Sinclair Taylor (2000, p. 30) argued that "where children are given a *voice* and responsibility in their schooling, both behaviour and learning improve". This supports the view that where children have had a say in the construction of their own learning, they are more likely to own and value it. As Sinclair Taylor point out, "giving children a *voice* in decision-making makes them visible and gives them a stake in that process, thereby reducing the chances of them wanting to sabotage it" (p. 32). Many of the writers mentioned in this section believe that modern day education and social policy and legislation should be altered to embody the intention of the UNC, so that children are given a say in things that affect them or matter to them. It would seem that although there have been attempts made to legislate for the protection of children, their *voices* have still largely been ignored.

The previous discussion points to a need for hearing children's *voices* in and about decisions which have traditionally been made for them by adults, or at the very least, to listen to their *voices* to judge what impact there is on learning. This has implications for those who have previously engaged in research "about" children, but who have failed to acknowledge the rights of children as participants in that research. Several researchers over the last decade, such as Christensen and James (2000), Greig

and Taylor (1999), James and Prout (1997), and Smith and Taylor (2000) have challenged earlier researchers to re-think their practices, and to engage in research which acknowledges the *voices* and views of children. This will be explored further in this next section.

2.4. Research that acknowledges the *voices* and ‘views’ of children

This section outlines a recent shift in the way children have been participants in research. Christensen and James (2000, p. 7) believe that by “listening and hearing what children say and paying attention to the ways in which they communicate with us” will give researchers the means by which they may work “with” children rather than by conducting research studies “about” children. Smith and Taylor (2000) also acknowledge that there is now a new way of viewing children within the field of research. Children are gradually being acknowledged as the central figures rather than the “objects” of research.

Prior to the mid-1980s children were seldom seen as active participants in research, or where situations could be explored from their perspective (Jones & Tannock, 2000). Since then there has been a gradual attitude shift towards that of valuing what children have to say, and recognising that children are more than capable of contributing to research. Where such traditional psychologists as Freud, Erikson and Piaget had viewed children as too immature to contribute personally to research, some social researchers more recently, have acknowledged children as being better placed than adults to explain their own points of view. It has not been easy for this attitude shift to gain momentum. According to Waksler (1991, p. 62) many social researchers preferred to “set themselves up as the understanders, interpreters and translators of children’s behaviour”. Waksler’s promotion of studies with children in 1991 has however, continued to win support. Because children hold very different perspectives of the world from those of adults, Waksler believes that any research that investigates children’s views must first find out what they know and how they view their world. In 1991 Waksler recognised a need for data in sociological research that was based on children’s perspectives. This was a major

shift in sociological research and some researchers are now exploring children's perceptions, ideas, understanding and knowledge in many social areas of interest.

Kiddle (1999) is another researcher who was concerned that children's views and *voices* are often under-represented in educational research. In a 1997 study on distance learning programmes which would be used by children, Kiddle found that the learning materials and teaching tools were prepared for children without any input or participation by or from them. As a consequence, children who were working in isolation, distanced from the school and teacher, often found it difficult to grapple with the adult concepts presented to them. In this instance children were being seen as those for whom adults had to plan.

A study skills project team, led by Kiddle, adopted a fresh approach which started with the children themselves. They devised a methodology which sought children's own views about their learning, and about the way in which teaching materials provided would best help them to understand what teachers were expecting them to do. The project team hoped that by listening to what children had to say, teachers would also learn about the more relevant teaching programmes they might use in facilitating children's learning. The methodology, which involved children in a practical way, allowed them to express their views honestly, and in their own terms and language. Kiddle stressed that it was imperative for teachers to seek practical ways for children to have their views heard in the assembly of any programme in which they are obliged to participate. Who better to be expert informants, Kiddle was asking, than the children themselves.

Education is about the relationships and interactions between all the participants. Where children were once seen as powerless and inadequate they are now providing social researchers with rich data. Those like Aggleton et al. (1998), James and Prout (1990, 1997), Kiddle (1999), Mayall, (1994, 1996), Smith et al. (2000), Waksler (1991) and others, who acknowledge that the views, ideas and perceptions of all groups should be heard and valued are beginning to realise children's very real potential for educational and social research.

This particular study is about listening to children, and hearing their *voices* and views about their learning in health education, and therefore most of the literature

reported from this point on was selected because of its particular relevance. Although not exclusively, research studies were sought where comparisons were made between children's and adults' views about health. Although much research is beginning on the views, concepts, attitudes, knowledge and beliefs of children and young people, very little qualitative research appears to have been done comparing adult's views and the views of children, even though there is evidence that the views of children often differ from those of adults (Aggleton et al. 1998; Wiley & Hendricks, 1998). Where health is the issue, it is important a researcher explores the views that children have about their health and what they are being taught, and how children's views differ from those of their parents and teachers. The back-drop to this present study is the recent development of a curriculum statement about children's learning in health. Children, however, had no input into the selection of content.

Aggleton et al. (1998) point to the fact that there have been numerous studies carried out which rely on statistical evidence in response to questionnaires and surveys. Although these may be a useful source of valuable data, if the questionnaire or surveys are seeking numbers and frequencies related to certain health issues, they tell us little about how the young people really think and feel about those issues in relation to their own lives. In their research on young people whose parents were divorced, Hetherington and Clingempeel (1992) used the Baumrind child competence inventory, which required participants to select a set of descriptions of behaviour and beliefs that best described them. This type of data collection takes no account of participants' feelings or the uniqueness of each situation. It may yield statistical data but does not give the real story from the participant's perspective.

Central to the theme of this research study is the ability to distinguish between what adults consider children need to learn and what children really want to learn more about. Woodhead (1997) defines children's needs as being what other people judge is good for them. Woodhead suggests that the adult knows what they need. Parents, teachers, policy makers and curriculum developers, all make conscious decisions about what they believe children need to learn. Unfortunately, children's *voices* and views are seldom a part of this decision making process, although it would be better to consult them about any decision which is likely to affect them.

The *New Zealand Curriculum Framework* (1993, p. 11) asserts that everyone needs to learn mathematics. By what and whose criteria are these needs interpreted? Prescriptions and statements about children's needs in terms of curriculum may satisfy those in authority but pay little attention to the children's best interests. For example, in health education adults may prescribe a preventative model of health whereas children are more concerned about intervention. The attainment levels specified in the curriculum for children are tied into the biological age development model. It is clear children's needs, and their futures, are shaped by the dominant adult culture (Woodhead, 1997). As described earlier in the chapter, significant changes have, in recent years, been taking place which respect children's rights and empower them to have a *voice* in matters and decisions affecting their futures. In several studies on child abuse Kitzinger (1997) talks about listening to children and incorporating their feedback to develop programmes which will empower them. Both Kitzinger and Woodhead challenge the view that children need complete protection. Knowing that their opinions are valued will encourage children to assume some responsibility and contribute to how their lives are planned. As Lees (2000, p. 6) points out

An important element is acknowledging that children are not empty vessels to be filled, but have information, views, experiences and opinions of their own which are valuable, and as valid to them as those of adults. In some situations children's and young people's views are much more valid as they have greater insight into the needs and experiences of their peers.

Aggleton et al. (1998) suggests that there has been little research into the "commonsense" ideas that children and young people have about health and the causes of illness. They point out that little research has been done into how children might feel about the programmes and the school curriculum developed for them. Health promotion and curriculum in both England and New Zealand seems to be motivated by those health behaviours and issues which cause panic amongst health professionals, such as drugs, alcohol and tobacco, sexual health (particularly teenage pregnancy), and youth suicide. As Aggleton et al. (p. 217) comment:

The curriculum is, unfortunately based very much around sex education, drug education and the big moral type panics, the big issues, whereas it's very much the everyday issues that kids might want to talk about, that are more important and pertinent to them.

It is also important for research to discover whether the health views of children differ from those seeking a more contextual curriculum. Aggleton et al. and New Zealand researchers, also, agree that adults' and teachers' views about what children need often differs from what the children actually want. Aggleton et al. found in their 1996 study of children's beliefs and perceptions that a great many of children's views and fears were sourced from current media stories, such as a fear of meningitis, mad cow disease and drug related deaths. On the basis of personal experience is it possible that young children might indeed be fearful of such factors they think might affect their health and safety? Further research with children at different age levels may be needed to consider this.

Alderson (2000) questions whether children can and should be asked to give their views in matters or procedures which affect them. However, as mentioned earlier, Article 12 of the 1989 UNC on the Rights of Children accords children the right "to express an opinion and to have that opinion taken into account" (Sinclair Taylor, 2000, p. 26). Rowe (1999), for example, describes how a school inquiry tackled bullying by seeking the views and opinions of seven year old children about bullying which were to be included in its decision making. Children were asked where and when bullying was most likely to take place and as a result of the children's replies, playground supervisors made sure they went to these troublesome areas. As a result bullying became less frequent.

As with Lees (2000), Alderson's research also includes consideration of the myth of children as innocents and empty vessels. She points to the capabilities of children when they are included in the consultation process. She comments that children construct their ideas and views by building on "hints and cues" of others (p. 57). These they then put into a context which they believe has meaning or applicability for them.

Literature thus far has indicated that childhood and the rights of the child have gained in significance, and in the process, so too has the interest in research on and with children. Children are now being recognised as critical participants in certain research processes. Smith and Taylor (2000) summed up the new century's approach when they said that research, policies and practice should no longer treat children as dependents. Rather, they believe that children should be regarded as capable participants in shaping their own futures, but, in order for this to happen, adults need to hear what children are saying.

2.4.1. A new paradigm

The virtual absence of research which places children at the centre of the research process as “participants” rather than “objects” to be researched makes this an exciting period in social research. In 1996 Jenks advocated alternative approaches to studying children and childhood. The following year James and Prout explained an emergent paradigm where children are given a *voice* and their perspectives given consideration and value. The philosophy is that children's relationships with their social worlds, and not the world constructed by adults, is worthy of study, and that children should be seen as being active in constructing and determining their own social lives, rather than having it determined for them by adults. James and Prout (1997) further argued that adults do not construct everything that is relevant for children. They considered that children had major roles to play, and should be given a *voice*. John (2000) developed the same argument. Children, he urged, must be encouraged to make their *voices* heard and understood.

As a consequence, a new field of research is now developing which encourages researchers to listen to children's points of view, value their perspectives, and attempt to understand the meanings that children construct within the context of their own lives. By recognising children as being worthy of study and, by including them as critical participants, social researchers are beginning to recognise children as a vital group of individuals who are informed and have their own view of the world. Hart (1992) points out that “Participation not only allows a child the right to have a *voice*;

it is equally valuable in enabling children to discover the rights of others to have their own, very different *voices*" (p. 42).

James and Prout (1997) advocate more research into the sociology of childhood which seeks the particular views of the child on matters of concern to them, such as their health. The time is right to study children in their own right, and to have them inform research. Mayall, in 1999, suggested a need to re-think children and re-think childhood within the theoretical framework of the sociology of childhood.

France, Bendalov and Williams (2000) suggest that as a new understanding of childhood is sought, researchers need to adopt a new research methodology that places children as the central focus and recognises their social relationships, identities and cultures as being worthy of study. This approach is explored in the next section.

2.4.2. Innovative research methodology and children's participation

Alternative methodologies have been developing since the mid 1980s and are being adopted by a number of scholars: Gollop (2000), Mayall (1996, 2000), O'Kane (2000), Wetton and McWhirter (1998) and others. Mayall (1996) believes research methodology that accepts children's ideas as valid and worthwhile and recognises children as competent informants calls for a grounded approach to developing theory. Alderson (2000) pointed out that a quantitative gathering of information also measured children's behaviour or attitude, but generally hid them within the quantitative statistical data, where they became just a part of the group analysis. As the more qualitative research methods have gained in impetus, more studies are being carried out which involve children as participants in the research process, rather than merely objects to be researched.

More recently researchers have used innovative approaches with children, such as artwork, puppetry, sculptures, video, theatre, drama, stories, picture cards, conversations and photography to gain not only children's perspectives, but also to encourage them to think critically about issues which may be causing them concern. Prosser (1998) acknowledges what others have said, that it might now be time to recognise that research with younger participants may have very different starting

points from their older peers and adults. Prosser believes that “image-based research is not only useful but also illuminating, engaging and stimulating” (p. 5).

Earlier researchers such as Mandell (1988) used participant observation as a means to study the process by which children negotiated meaning in school settings. Researcher workers like Coenen (1986) and Damon (1977) described the social worlds of adult and child as being so far apart that it was difficult for adults to play anything but detached observer roles. Consequently, Mandell and near contemporaries like Goode (1986) and Waksler (1991), used research strategies which enabled them to enter the world of the children where they assumed the role of friends, rather than the role of authorities, and so were able to interact with and share the activities and conversations of the children. This enabled them to get what children really thought, not what they wanted adults to hear!

Jones and Tannock (2000) on the other hand encouraged more “naturalistic” research methods, commenting that perhaps the time has come to jettison questionnaires and structured interviews and explore alternative ways of researching children’s perspectives through writing, discussion, story, music, model making, art, drama or puppets (p. 96).

These more innovative naturalistic research methods have proved useful because they allow researchers to interact more closely with children and enable children to talk and to tell their stories, thereby producing valuable sociological data (James & Prout, 1997). Researchers and the participants can work together so that research is *with* rather than *about* children. In this way the researcher is encouraging children to offer their views about particular subjects. In participatory research there is more of an emphasis on children as active agents within their daily lives and within the research process (Harden, Backett-Milburn, Scott & Jackson, 2000). These studies show that there are some educational researchers who argue that a new approach is required when working with children, particularly when the over-riding goal is that children should be participants in the research process. As a consequence of this view, research studies are emerging that use a variety of methodologies in the same study. Researchers are, however, very aware that talking to children about their beliefs and behaviours poses problems. In particular, talking to them about health

beliefs is a difficult task. Backett and Alexander (1991) stress that “approaches must be developed which are meaningful within the child’s own frame of reference” (p. 37).

There are, however, pitfalls with innovative research methods as Jones and Tannock (2000) found when conducting research into children’s perspectives on death and bereavement. During some of her sessions with the children, Jones found that the responses were so personal that she could not betray the children’s trust by publishing and making public their conversations. Alderson (2000) makes the point that there are critics of these innovative research techniques, some of whom challenge the findings as being unreliable, and lacking in academic rigour. This often leads to valuable research going unpublished, and the data given by the participants, devalued.

2.4.3. Children’s art

Earlier mention in this chapter pointed to the need for the use of new and innovative methods if research was to heed the *voices* of children. Many visual forms have been used in research with children over the years. One of the common approaches is a draw-and-write (d-w) method (Wetton & McWhirter, 1998) which is increasingly being used as an entry point to research which seeks to gain children’s perspectives about issues which may affect their lives. This has posed problems for researchers who may have previously used traditional research methods and “are unsure about how to analyse and make sense of the data except by counting it” (Backett-Milburn & McKie, 1999, p. 393). D-w makes use of children’s drawings as representations of their understanding, so it may be pertinent here to reflect on the way in which art has been used in other types of research.

Thomas and Silk (1990, p. 110) identified three distinct traditions of research into the emotional-expressive aspects of children’s drawings.

- Drawings used for psychoanalytic theory; this allows feelings to be depicted in drawings, particularly where communication of these feelings is difficult verbally. (Freud, 1976).
- Drawings used for scientific validation of emotional indicators (Machover, 1949; Koppitz, 1968, 1984).

- Drawings used in the depiction of important or emotionally significant topics (Sechrest & Wallace, 1964).

The use of drawings has a fairly long history. Dating back to 1926 is the suggestion that an analysis of children's drawing could be useful in evaluating the emotional state of children and with testing children's intelligence (Goodenough, 1926). The underlying assumption was that children's drawing is directly expressive of their concept of the topic posed. Thomas and Silk point to other similar early work done by Karen Machover, who in 1949, devised the draw-a-person test. Later work, but similar to Machover's, was the draw-a-scientist test by Newton and Newton (1995) to find out what children thought about science and the people who taught it. Piaget used drawings to illustrate his cognitive theory, but they were never central to his theory.

According to Thomas and Silk much of the work of Machover, Koppitz and others involved in psychology and child development used children's drawings to discover events, people and situations of importance to the child. Analyses of the drawings were purely clinical and did not reveal feelings or emotions. Children's drawings have the potential for indicating the knowledge children may have, what children may be thinking, and how children may feel in a certain situation. Wetton (2000), in a personal conversation, said that drawing pictures may help children to solve problems and, has the potential to facilitate decision-making. However, Thomas and Silk caution that "there are still many gaps in our understanding of children's graphic intentions" (p. 107).

Fisher (1990), Reid (1986), and Simpson, Delaney, Carroll, et al. (1998) all discuss the use of art to help children to connect themselves to the world around them. Fisher considered art as a fundamental human process allowing for exploration, experiment and discovery. Reid wrote about the use that art-making had on young children's growth and development, helping them to come to terms with the perceptual world and improving the quality of their observation and understanding. Simpson et al. (1998) found that two art teachers in Brooklyn used the world of their at-risk students as the conceptual base for their teaching. Visually their students

identified issues they had within their communities such as disease, nutrition, pride, freedom, concerns and rights; these formed the basis of conceptual units using various forms of art and visual media. The fact that students identified issues which were relevant to them links closely to this study.

Simpson et al. pointed out that through the visual form one can communicate or express a whole set of feelings and ideas in a non-verbal manner because visual images or cues (which are used in psychology) can often awaken the senses and aid in the recall of events. Cues in use might include reflective questions dealing with significant others or with formative events which affect an individual's life. This illustrates a relevance for my work in health education with head-injured children and youth by influencing my thinking about dealing with atypical, disturbed children. A few years ago I took a group of young people away to camp. They had all suffered head injuries in accidents. An art colleague asked these young people to engage in an activity which required them to construct a visual sculpture of their lives up until that point. The sculptures were made from items each individual collected from the environment around them. The results were personal and illuminating. For each of them the focal point was their accident and the immediate period afterwards. Even more poignant were the ways in which they depicted the gradual rebuilding process. They were asked, if they felt able, to talk their sculptures through with the rest of the group. The result was extremely illuminating, and also personally helpful for the participants.

It has been suggested that art can also help in the expression of children's knowledge and experience (Fisher, 1990). It might be the visual expression of their thinking, the way they perceive the world and how they give expression to it. It may also be a means of conveying thoughts that children are unable to put into words. Consideration must also be given to what drawings reveal. White and Gunstone (1992, p. 105) say that "drawings reveal to teacher and student the ideas held by the student", and Fein (1976) suggests that children's drawings are filled with meaning. These drawings can help the teacher understand better how the child is thinking and forming ideas. The children's drawings reveal current beliefs and attitudes. Drawings,

White and Gunstone (p. 105) say, are a good way to improve children's learning approaches and styles.

Most people find drawings fun to do, which is good, but what is even better is that drawings enable teachers to discuss learning and students to reflect on their own learning, both of factual content and of attitudes.

Researchers have identified a need to probe beyond the drawings themselves to test children's understanding. While there is heavy reliance upon words in testing children's understanding, White and Gunstone suggest that there are many other ways of probing. Sometimes through their drawings children may reveal qualities of understanding which would otherwise have been hidden or lie dormant. Most children enjoy drawing and sometimes it is easier for them to show their qualities of understanding in drawings rather than in writing. White and Gunstone found that in all their studies "drawings provided insights into understanding that were often surprising" (p. 102). And if children are asked to add words to their drawings, a further dimension of understanding often becomes self-evident.

According to White and Gunstone, drawings are the most open-ended of techniques and may reveal unexpected understandings. They tap holistic understanding which allows for a greater expression of attitudes and feelings. They allow a range of ideas to be explored and current beliefs to be revealed. The next section explores a methodology which uses children's drawings as means to gain their understanding and perspective about issues. It is an approach which is rapidly gaining in popularity amongst researchers working with children.

2.4.4. Draw-and-write research and its use by other researchers

A personal interest in listening to what children were saying, and involving them as participants led to a consideration of techniques to do this. An interest in one particular innovative research method, the draw-and-write (d-w) approach, mentioned earlier, prompted a meeting at Southampton University, England, with its originator, Noreen Wetton. A review of current literature revealed that many researchers, particularly in Britain had already used d-w as a means to include children as

participants in the research. D-w was used as a starting point in this present study, and, supported by other participatory research methodologies, it was used to explore the views of primary school children about health. In participatory research there is more of an emphasis on children as active agents within their daily lives and within the research process (Harden, Backett-Milburn, Scott, & Jackson, 2000). Researchers are, however, very aware that talking to children about their beliefs and behaviours poses problems. In particular, talking to them about health beliefs is a difficult task. Backett and Alexander (1991) stress that “approaches must be developed which are meaningful within the child’s own frame of reference” (p. 37).

McWhirter and Weston (1994) argue that if researchers (and teachers) really want to find out what children think and to gain their views, they require a considerable degree of expertise to get children to freely express their ideas. To achieve this a change in language might be required. Pridmore and Lansdown (1997) suggest that there is a need to develop innovative approaches which enable us to understand how children view their world. They employed the use of a mixture of approaches, such as write only, draw-and-write and label-and-write. In their 1996 study of nursery children’s awareness of the need for sun protection Collins, McWhirter and Wetton (1998) reported that the approach adopted needed to be flexible, brief and simple if it were to succeed in gaining reliable data from very young children. They used draw-and-talk, where, in response to a suggestion, children drew pictures and then talked about their pictures. With such a variety of possible techniques, Burgess (1998) stressed the need to consider carefully the research techniques used both with children and with adults.

While the choice of method will always be determined by the research question, it is essential to take account of their age, social class, gender and ethnicity of the children so that these key variables are considered in an explicit way when designing and conducting projects.

(Lewis & Lindsay, 2000, p. xv).

D-w, it has been argued, has the above attributes as well as being a valuable methodology for use with children (Wetton & McWhirter, 1998). They point out that

this particular approach has the facility of being flexible, easy to use and is recognised as producing valid and reliable data. Of interest to many researchers employing this approach is that its flexibility allows d-w to be easily modified for a particular study and age group of children. It also invites a mixed approach of methodologies in the same study, such as linking the d-w approach with interviews, surveys, questionnaires and observation. The growing list of recent researchers who have used the d-w approach is shown in Table 2.1.

The d-w methodology, as used in this study, is described in the methodology chapter. An overview of d-w and discussion of how it has been used by others is outlined.

When d-w is used, children are invited to respond to an open-ended question or scenario by drawing their response in pictures and then writing something about what is happening in their picture. How this is utilised will be dependent on the age of the children and the nature of the topic. The d-w method is one which can be used with children of a wide range of ages (Williams, Wetton & Moon, 1989); it is a methodology which has practical applications for very young children (Wetton & McWhirter, 1998); it is an innovative tool which can provide “an empirical demonstration of the high quality and sophisticated nature of the data which can be collected from young children” (Pridmore & Bendalov, 1995, p. 473); it is a methodology which produces emerging data which can be quantified (Wetton & McWhirter, 1998); it offers the potential to allow children to participate and improve the quality and relevance of the curriculum (Byrne, 1999; Collins, McWhirter & Wetton, 1998; Hantler, 1994; McWhirter, Wetton & Williams, 1996; Orme & Starkey, 1999; Porcellato, Dughill, Springett & Sanderson, 1999; Pridmore & Bendalov, 1995); it allows data to be gathered in a bottom up approach (Pridmore & Bendalov, 1995; Pridmore & Lansdown, 1997); it is grounded in a philosophical position which is broadly interpretative (Mason, 1996).

Valuable factors of the d-w technique are that it is a common and relatively easy teaching practice in New Zealand classrooms; in research, data are easy to analyse and codify; it demonstrates children’s thinking and provides insights into children’s changing perceptions at the different age levels, and it has the ability to

help inform teachers in the preparation of curriculum materials (adapted from Wetton & Moon, 1988, p. 62).

Wetton & Moon found that d-w has the ability to reveal knowledge as well as misconceptions in relation to many health issues. Critical to their findings was the importance of establishing just what children bring to their learning. MacGregor, Currie and Wetton (1998) and McWhirter, Collins, Bryant, Wetton and Newton (2000) found that d-w gave a good indication of children's insights. They also found that, in a spiral development, children's insights and views developed and expanded as they got older.

Table 2.1 Some researchers using draw-and-write

<u>Views, Perceptions, Concepts and Concerns:</u>		<u>Behaviours and Attitudes:</u>	
Wetton & Moon	1988	Backett & Alexander	1991
McWhirter & Weston; Hantler.	1994	Blissett, Lysons & Norman	1996
Sinclair Taylor,	1995		
Davis & Jones; Pridmore	1996		
Pridmore & Lansdown; Watt & Sheihan;	1997	<u>Beliefs:</u>	
Turner, Zimvrakaki & Athanasiou.		Pridmore & Bendalow	1995
MacGregor, Currie & Wetton; McWhirter;	1998	Bendalow, Williams &	1996
Aggleton, Knight, Prayle, Warwick & Rivers;		Oakley.	
Jordan, Price, Telljohann & Chesney.			
Mulvihill, Rivers & Aggleton;	2000		
Harden, Backett-Milburn, Scott & Jackson;			
Hill, Lewis & Dunbar			
<u>Evaluation and Knowledge:</u>		<u>Understanding:</u>	
Zivkovic & Marinkovic.	1994	Eiser, Havermans & Casas	1993
Pion, Kopf, Hughes, Wetton, Collins & Newton	1997	Watt & Sheihan	1997
Bishop.			
Collins, McWhirter & Wetton.	1998		
McWhirter, Collins, Bryant, Wetton & Newton	2000		
Bishop			
<u>Construction of Curriculum</u>		<u>Empowerment:</u>	
Wetton & Moon	1988	Kalnins	1992
Pridmore & Bendalow	1995	Pridmore & Bendalow	1995
McWhirter et al.	1996; 2000	McWhirter	1998
Collins et al.	1998	Harden et al.	2000
		Gadin & Hammarstrom	2000

Studies by Pridmore and Lansdown (1997) and Wetton and Moon (1988) both reaffirmed the importance of partnerships between children, teachers and other adults, rather than the usual top-down model. The opportunity for the empowerment of children is discussed in several studies using the d-w approach (Bendalov, Williams & Oakley, 1996; Kalnins, 1992; McWhirter & Weston, 1994; Pridmore & Bendalov, 1995).

The flexibility of d-w provides potential for innovation by the researcher. There are no limitations to the variations on the original d-w concept. McWhirter et al. (2000) suggest “draw-and-write is primarily a qualitative tool for understanding how children explain and construct ideas and concepts” (p. 20), because children were simply asked to draw a picture and write something about the picture. Initially used as a way-in to curriculum development, d-w has since 1989 been used as an evaluative tool by MacGregor et al. (1998), McWhirter et al. (2000) and Zivkovic & Marinkovic, (1994). Hantler (1994) used d-w to facilitate whole school approaches to policy development. Harden et al. (2000) in their study explored the ways in which children dealt with risk and safety in the context of their lives. These researchers used a variety of innovative methods such as stories, vignettes, and spider grams to complement the interview sessions. Another feature of Harden’s study was that the research activities were undertaken at the children’s homes and included the rest of the family so that the views of older siblings and parents were also sought.

The d-w approach, supported by other methods provides teachers and other adults with valuable data. In the example cited above the researchers found that there was a need to explore the social construction of risk. In the above study and in New Zealand, it would appear that public opinion is that children are at considerable risk of “stranger danger”. However findings in the Scottish study showed that children perceived other factors of risk, such as fear of the dark, rough areas, and older teenagers and drugs. They were also able to present strategies for change. The assumptions we make as adults can often result in programmes for children which do not adequately address their needs. A quantitative study, for example, can provide evidence of the numbers of children who do or do not wear cycle helmets, but the

qualitative data will provide us with the logic and rationale behind children's behaviour regarding the wearing of the helmets.

Criticisms of draw-and-write

Not surprisingly, d-w has its critics as well as its followers. Backett and Alexander (1991) conducted an ethnographic study of children's health-related beliefs and behaviours between 1987 and 1989. As well as ethnography they introduced a variety of age-appropriate innovative methods. They reported that little research had been done with younger children. Most previous research was with teenagers in relation to drugs and alcohol. They said, for example, that there was little "knowledge about health from the child's own viewpoint. Most research has involved longitudinal studies providing statistical data between health and social variables, but little about the underlying social processes" (p. 34).

Backett and Alexander were particularly critical that beliefs about health lay predominantly within the dominant medical model, which relied largely on the transmission of health facts and did not examine beliefs about health and illness from the child's point of view. They were critical of the 1984 British *Primary Schools Project* because the research had been carried out in the school setting. While data were obtained about children's health knowledge and ideas, little of the data, that were reliable, were about children's health behaviours generally. "In large part", they commented, "young children's own views about health and its related behaviours have been neglected because of the greater legitimacy unreflectively accredited to the knowledge, experience and power of their caretakers" (p. 35).

They also pointed to the difficulty of gaining reliable data from children, because the language used by adults has often been unfamiliar to the children concerned , and so the questions asked have not always been understood. As they quote from McGurk and Glachan (1991):

What an unfamiliar adult means by a question may turn out to be quite different from what the child thinks the question means. The latter, indeed the whole way in which the child perceives the interaction, will be influenced by the context and form of the child's knowledge about adults

in general. This is a topic on which we are relatively uninformed. A firmer understanding of children's beliefs about the world of adults could be of considerable value to professionals involved in work with children, as well as being of some theoretical interest (p. 35).

Backett and Alexander made every effort to use familiar language, and to use it in a familiar setting which was representative of the child's world. They used "drawing, direct and indirect questioning and projective techniques" (p. 35). Their approach to the d-w exercise was, in advance of the interview, to send children a drawing pad and a letter asking them to draw all the things they did to keep themselves healthy. Adult-child interviews held in the home then led on from the drawings. Their findings were that the d-w exercise took into account knowledge but not behaviours; the abstract questions were only suitable for children over the age of 8 years; children were more informed as they got older, but young children tended to base their answers around their likes and dislikes and finally, that knowing and doing were not necessarily related. McWhirter and Weston (1994) also pointed to the importance of using the right language so that young children understand what is actually being asked.

More recently, Backett-Milburn and McKie (1999) and Gabhainn and Kelleher (2002) have pointed to some fundamental pitfalls in the use of d-w. Backett-Milburn and McKie said that some researchers might be using d-w as a timesaver and a quick fix, and were not willing to construct other qualitative methodologies to explore the children's social worlds. They asked whether the d-w approach had the potential to negate collaborative research between children and adults, and whether indeed, d-w approaches might be construed as superficial, leading to a misrepresentation of the children's social world.

An implication is that a researcher using the d-w approach should tread with caution and ensure that d-w is not a stand-alone process, but is supported by other approaches. The importance of reliability checks throughout the analysis phase should attempt to remove the possibility of misrepresentation and research bias. A researcher's interpretation of children's drawings may not always be accurate and pictures alone should not form the basis for data collection; their accuracy and

precision in interpretation are greatly enhanced when supplemented by an interview. Researchers using d-w must use other methods to ensure the reliability of their analyses. This present study had the advantage of capitalising on previous studies and took into consideration many of the criticisms directed at past research. This is described in the next chapter.

All research methods have their limitations, and working with children is no exception. Children are more than capable of taking the measure of a person, as well as realising their intent. Some children, for example, no matter the approach, have the ability to cooperate with the researcher or to sabotage the exercise. It can be argued that whatever methods are employed, ethical guidelines need to be followed and children should understand what the research is about, why it is being done, and their involvement in it. Backett-Milburn and McKie suggest that social researchers would do well to spend time in participant observation that enables them to explore the social worlds of the children. Researchers and children need to build up a relationship before the research actually begins and that the d-w approach should not be used exclusively nor in isolation.

2.5. Some research that has been done

In this final section some further literature containing research that has been undertaken to explore children's views is examined. The research has been confined specifically to health issues and health education, since that is the essence of this present study. Both qualitative and quantitative studies are considered, and most have employed the draw-and-write approach and complementary methods which give children a *voice* as participants in the research. Most of the studies are European in origin. Health education research in America usually continues to employ a quantitative approach which relies on analysis of statistical data. In Europe qualitative health research with children is gathering momentum, while in New Zealand little research about children and school health education has been done, although in both New Zealand and Australia, such research is gradually beginning. In the literature search an added criterion for research choice was that, where possible, studies would be sought that included adults as well as children's views.

2.5.1. Research: children's and adults' views about health issues and concerns

It is gradually being recognised that there is a need for gaining children's, young person's and adults' views so that a more consistent and appropriate curriculum might be developed which attends to the very real interests, concerns and issues that children and young people have, or might have, about their health. Hantler (1994) did not include adults in her research on school bullying, but did acknowledge the need for all groups concerned in addressing the issue, to work in partnership. This would include adults and children. MacGregor et al. (1998) also commented that successful programmes and policies are best devised and guided by the opinions of all interested parties, pupils, parents and teachers .

Wetton and Moon (1988, p. 60) said of their 1984 research project into children's views about health, that children were a group whose views and *voices* were usually ignored. However, they also added that if they were to develop a more flexible and needs-based programme they had to recognise the views of all those seeking to promote children's health, so that the key messages were consistent. It was also important to acknowledge that the "so called" professionals, such as teachers and health professionals, were not the only experts.

Key factors recognised in most of the relevant reviewed research from Europe are that children have very real and valid concerns and views about health; that they bring different and changing perceptions to the health lessons at the different levels of learning, and that children could influence learning to make it more relevant if curricula took into account their knowledge and thinking. Wetton and Moon (p. 60) explain

It would be too easy to dismiss the sense they make as uninformed, childlike in its logic, lacking insight and experience and merely amusing. If we dismiss it we may also miss the critical factors in a successful health education programme and fail to get to know the world of health as the children experience and explain it.

There is a strong case in the literature to recognise the value of children's knowledge. Curriculum and health programmes based on children's current knowledge is argued.

Interestingly, ten years after Wetton first urged that curriculum should value children's knowledge and make that knowledge the starting point, Wetton and McWhirter (1998) have again challenged curriculum development in health education, commenting that "starting with where children are" (p. 263) is still rarely applied to education in health.

Davis and Jones (1996) carried out research on children's views of adult constraints placed on them because of adult-perceived risk. Their research showed that although children's and adults' views were identified, there needed to be dialogue between both parties. Without dialogue the result would be a tug-of-war between adults and children, with the likely consequence that children's views would be over-looked.

In the Davis and Jones study the researchers used a focus group approach to encourage *naturalistic* dialogue. Children, they argued, although less articulate than adults, were still reliable sources of information. They found that although parks and open spaces were originally planned to keep urban children off the roads and in safe play areas, children thought of them as places to steer clear of because of stranger danger, gangs and older children. Where many adults called for behaviour modification programmes, the children actually gave alternative recommendations for change. Adults also pointed out that the children were the problem. A range of issues needed to be addressed, in particular how adults and children might be encouraged to collaborate to effect change.

A recent study showed that adult views of risk contrasted sharply with those of primary school children (McWhirter, 1998). Based on the success of the open-ended draw-and-write approach with younger children, McWhirter employed the same approach with adolescents (young people) and adults. The draw-and-write exercise was carried out in the classroom by the form teachers along with a questionnaire and a rating scale. The scale was employed by the young people to rate the risks concerned with the activity they had drawn. Key findings for this study were that

rather than the high profile risks upon which many of our health programmes are based, misbehaviour was the most identified risk. McWhirter used focus group discussions to gain a better rationale for this response and it was found that acts of misbehaviour seemed to be a means by which young people were attempting to assert a new identity distinct from that of adults and in keeping with their own peer groups. Discussion indicated that while adolescents were often well aware of the health consequences of risky behaviour such as smoking, the “risk taking” itself was a way in which they could assert themselves within a peer group, create their own identity, and rebel against the power of the adult.

The above study pointed to the fact that “risk” as a concept was rarely taught within the curriculum. As in New Zealand, drug education is more usually taught by specialists, with absolutely no contextual relevance to the young people themselves. McWhirter’s findings in this study revealed that if the language of young people was found and used when talking about risk and feelings, and more time for talking about risk and what certain situations feel like was provided, then perhaps young people would be enabled to make more realistic assessments of risk and to take control. McWhirter argued that this does not mean that they will make the choices that adults want, but they may be encouraged to at least think about some alternative choices.

Related to the above study are the findings of Aggleton et al. (1998) who said that there was a real need to probe beneath the surface of the messages that children and young people were giving, particularly when these views differed from those of adults. There is a need to not only listen to what they are saying, but why they are saying it. There is a need to understand the everyday perceptions and beliefs they have about health and well-being. Aggleton et al. pointed out that although surveys may have their place in terms of providing numbers and frequencies they tell us next to nothing about the daily issues and concerns of children and young people. Resulting programmes are, therefore, often meaningless for their target audiences. They also suggest that “little research has been done on what and how young people feel about the kinds of health education and health promotion which have been developed for them” (p. 214). Their research in 1995-6 addressed these issues by examining the perceptions and beliefs that young people held about their health, ill-

health, risk taking and other factors; the implications of these perceptions and beliefs for motivations, attitudes and behaviours towards health; the kinds of health promotion which young people find most relevant and appropriate; and the views of selected professionals involved in health education and health promotion with young people.

Although the above studies compare the views of children and adults, and are a beginning to the adult-child debate, the evidence is that there seems to be a long way to go to make a difference to the way research is conducted and how curriculum is constructed.

Influences on views

Literature on health education shows that in spite of greater attempts to get children's views, adults still have a strong tendency to tell children what is right for them. Yet there are numerous other influences upon children's perspectives. Aggleton et al. (1998) found that younger children's perceptions were sometimes influenced by the media, that there were similarities across all age groups, and that a wide range of health concerns were raised that went beyond the usual high profile, politically-directed health issues of drugs, smoking and sexual health. Of significance were children's interest in and concern about current issues such as their likelihood of being killed in an air crash rather than by tobacco inhalation. They also found that television media were the greatest source of information, that health education did not really address their needs and concerns and that many programmes worked in the interest of the sponsoring group rather than of the young people themselves.

The importance of understanding how children think about health, what interests they have and what is important to them cannot be over-stated. As Aggleton et al. (p. 219) point out:

Unless we are able to develop an understanding of how young people see the nature of health, illness and disease, as well as the steps that can be

taken to promote health, there is the risk that health education programmes will not be relevant or well-received.

Priorities devised by committees for health curriculum are usually based on isolated but topical issues; this is not consistent with what children are saying. It is necessary to probe further and to recognise the importance of factors such as personal appearance, family relationships and peer friendships. This will alert us to the need for change to the structure and content of our current programmes (Wetton & Moon, 1988).

Interpretive studies

A number of interpretive studies were located. Burrows, Eves, and Cooper (1999) used a variety of methods to gain children's perceptions of exercise. They argued that the curriculum change from a prescribed weekly physical activity to a more broad-based physical education programme may be responsible for negative constructs about the need for physical activity. There was a need to find out what children's own perceptions of physical activity might be in the early years of belief formation. They conducted a small study which employed a draw-and-write exercise supported by written questionnaires. Using the draw-and-write exercise, they found that care was needed when asking a research question, open-ended questions being most successful. The language employed needed to be appropriate. For instance they changed "physical activity" to "exercise". Care was also required with the use of the question, "Is there anything you would like to write or draw about exercise?" Such a question could elicit a response such as "No thank you!" Burrows et al. also found that the children's drawings only depicted a particular sport or piece of sports equipment. Any measures of difference or similarity between children's beliefs and those of adults were not gained from the same study. What was found from children was measured against previous studies with adults. Further, where a child had drawn a picture and labelled it, "I like rugby best", it was excluded from the analysis as it was not considered that it fell within the criteria. An implication from their work is that future studies need to take into account appropriate language when asking

children questions so that valuable data are not lost. Also, where comparisons are made between children and adults data should be sourced from the same study.

Mulvihill, Rivers and Aggleton (2000) similarly undertook a study of the views of children and their parents on physical activity. They reported that there was a lack of interpretive studies about physical activity, particularly in the younger age group, and that most studies focussed on exercise (a prescribed activity done for a short intense period, and good for health) rather than physical activity (usually seen as sport or a game, often done with a group or a team, and with an element of fun and enjoyment). This interpretation was not consistent with the study of Burrows et al. (1999) where it was found that children interpreted exercise as meaning physical activity. Other studies, like that of Davis and Jones (1996) found that children knew what the benefits of exercise were for their health.

In the belief that parental views are also important Mulvihill et al. (2000) included parents' views in their study because of the influence they were seen to have over their children's participation. There are definite links between the findings of the three studies mentioned. That of Davis and Jones reveals that fear of danger may be why parents now drive their children to sport; Burrows et al. found that time was the barrier, and Mulvihill et al. reported that parents have an overriding influence over what their children do. If fear means that parents now believe they must take their children to sport, and time, or lack of it, is a factor, then children will miss out on physical activities.

Mulvihill et al. employed a qualitative and exploratory approach in their research. They adapted the draw-and-write exercise to draw-and-say, to gain access to children's meanings and understandings, supported by paired interviews between participants of the same gender and age to encourage discussion. Open-ended questions for both parents and children were asked so as to encourage dialogue which revealed attitudes and experiences. Unfortunately their sample groups were limited to those determined by teacher, and this changes the power dynamics between teacher and children.

The findings in these studies indicated that there was merit in seeking the views of all groups because it was not so much that there was a lack of knowledge about the

advantages of regular physical activity but that the parents were concerned about their children's safety. Through the interpretation of what each group revealed there was clearly room for collaboration between the groups in ensuring a safer environment so that more participation could be encouraged.

2.5.2. Some key findings of the research

From the review of relevant literature on children's views about their own health, these important issues arise for further research.

- Children should be seen as participants rather than objects.
- There is a need to push for new methodologies (Collins et al. 1998; James & Prout, 1997; Pridmore & Lansdown, 1997; Wetton & Moon, 1988).
- Children and minority groups need to be more empowered (McWhirter, 2000).
- There is tremendous value in the use of mixed methods (Backett & Alexander, 1991; MacGregor et al. 1998; McWhirter, 1998).
- Draw and write is a useful research technique but there can be drawbacks. Useful points are: versatility (Backett-Milburn & McKie, 1999; MacGregor et al. 1998); contextualisation and demonstration of different levels of learning (Wetton, personal conversation, 2000).
- There is importance in eliciting the views of all who are involved in the education of children and young people, as well as the children themselves (Aggleton et al. 1998).
- Assumptions can be made about what children need, but a complete set of perspectives is not gained until the target consumers themselves are heard. Qualitative and exploratory research allows participants to discuss their attitudes and experiences in an informal and interactive manner (Mullvihill et al. 2000, p. 168); statistical data do not reveal children's health concerns, nor do they give children's views, attitudes (Aggleton et al. 1998) and understanding (McWhirter, 1994, 2000). Quantitative data do not reveal how young people feel (Aggleton et al. 1998); McWhirter et al. 1996; Pridmore & Bendalow; Wetton & Moon, 1988).
- Children know far more than adults give them credit for (Wetton & Moon, 1988).

- Because the messages from children differ from those of many adults, any curriculum planning must be flexible.

2.5.3. The present research focus

As a result of an extensive literature review, and my own interest in the need to consider children's views of health, the following research questions were devised:

- What health knowledge and perceptions did children already have about health and health issues?
- Where did children acquire their health knowledge and perceptions?
- What aspects about their own health were they concerned about?
- What would children most like to learn about in health education?
- Did the views of children differ from those of adults?
- How could teachers make use of the children's views in terms of classroom planning for health?

These questions serve as a starting point for a study which seeks to involve children actively as participants in the research process, to value them as "knowers" and to give them a *voice*. The questions posed were shaped by problems identified in much of the literature by other researchers who were similarly concerned with giving children a *voice* about health. Literature which discussed the importance of finding new and flexible methods when researching with children was a motivating factor in the ways in which the research questions were pursued. These will be described in Chapter Three.

Literature suggests that while research has begun which seeks to uncover children's views about their learning in health education, there is still much to do. Greig and Taylor (1999) argue that "Listening to the *voices* and views of children themselves is one of the most neglected aspects of child developmental research" (p.81). By recognising that there are benefits in listening to children's viewpoints in Chapter One, this study through the research questions posed, now seeks to find out

what primary school children know, think, are concerned about, and want to learn about their health while they are at school. Recognition is also made of the importance of partnerships with relevant adults, and both parents and teachers are also involved in the research questions.

2.6. Conclusion

The relationships between adults and children are always changing. Paradigms, methods, ideas, thoughts and beliefs are also constantly changing and as I write about innovative methods today, further seeds are being sown and new methods will emerge. There is a paradigm shift from research being about children to viewing them as participants “in” research, and of them being social actors in their own right (Christensen & James, 2000; James & Prout, 1998). Alderson (2000) even suggests that where children have been participants in the research then they ought also to take part in the dissemination of the findings and offer their recommendations. Two years ago I attended a conference where, for the first time in my experience, young people presented a paper. It was an eye-opener. Not only was the presentation more technologically advanced than that offered by some experienced academics, but so was the importance of what these young people were sharing. More importantly it said to me, “Do not just give us a *voice*, but hear what we are saying”.

Personal reading and research have shown that in the last decade there has been a change in thinking about children who have been gradually recognised as subjects worthy of study in their own right. They are now accepted as critical participants in certain research processes. Taylor and Smith (2000) summed up the new century’s approach when they said that research, policies and practice should no longer treat children as dependents. Rather, they believe that children should be regarded as capable participants in shaping their own futures. In order for this to happen, adults need to hear what children are saying.

CHAPTER THREE

The Research Methodology and Methods

3.1. Introduction

Some contemporary views of children and childhood explored through a selection of literature in the previous chapter indicated that many writers have viewed children as a group who, by and large, needed to be taught and nurtured so that as they progressed through childhood, they might learn to take their place in an adult society (Kline, 1993; Postman, 1982). Kline suggested that over a period of time, adults have dominated children's lives, and children were gradually forced to conform. More recently, however, some writers have begun to acknowledge children and young people as seeking a *voice* and identity of their own. Giving a *voice* to children and recognising, that for adults, there is a need to enter into dialogue with children so that they may inform their own learning is gaining recognition among many researchers working with children. This present study is about gaining views from children and hearing their *voices* about their learning in health education. Earlier reference was made in the literature review to an assumption that curriculum content for health education was largely determined by adults, and that, therefore, adult views ought to be compared with the views of children and young people so that possible differences might be identified (Aggleton et al. 1998). This is also attended to in this present study.

This chapter will explain the methodology considered most appropriate for exploring the research questions; argue and support the chosen methodology; discuss the theory in which the research questions are grounded; demonstrate the

applicability of the research methods; describe the design of the study, and last, consider any general concerns in the research design.

3.2. Methodology

Silverman (1993, p. 2) makes the point that “methodology is a general approach to studying a research topic”. The choice of methodology may not, however, be straight forward, particularly if the research involves children as is the case in this study. Several theorists working with children have argued that because children think, interpret, learn about and understand the world in very different ways to adults it is necessary to consider the methodology with care (Burgess, 1998; Greig & Taylor, 1999; James & Prout, 1990, 1997).

Determining the soundest means of inquiry will also place the research questions under scrutiny (Marshall & Rossman, 1995). Piaget, for example, was interested in asking questions about how children acquired their knowledge, and at what stage of their development children’s knowledge advanced to a higher level of cognitive thinking and understanding. To address these questions, Piaget constructed questions and a variety of tasks. Through close observation of children while they engaged in the tasks Piaget was able to identify developmental stages in children’s cognitive thinking. Another theorist, Vygotsky (1978), on the other hand, argued that children’s cognitive thinking developed largely through their social interactions with older peers and adults. Vygotsky believed that when children worked initially in partnership with older peers and adults, they would gradually acquire the skills whereby they could eventually work alone. Vygotsky’s understanding of children demanded a very different research methodology from that employed by Piaget. Whereas Piaget conducted clinical laboratory and experimental tasks with children, Vygotsky encouraged children to engage in social interaction with others within more natural settings such as school, playground and in the home. In these settings Vygotsky observed the behaviour of children and listened to their conversations.

The importance of the two examples cited above is that the views of each of the two theorists necessitated a very different research methodology. As Marshall and

Rossmann (1995) and others have asserted, the research questions under investigation will determine the methodology employed. The research questions under investigation for this study were outlined in Chapter Two.

More recently, some social researchers have been arguing that in order to understand the world of the child, or how children themselves see and interpret their world, a qualitative methodology might be the most useful. For this study, the nature of the research questions dictated the methodology. What were they asking and to whom were the questions addressed? Fundamentally, the researcher in this study was asking children to give their views on their health learning at school and to *voice* concerns about health and health education. Children were also asked for their opinions about what they thought they should be learning about in health education. Similar questions were also asked of the corresponding parents and teachers of the children in the sample group. If the views proved to be different, then there may be a need for those working with children, for example teachers, to change their curriculum so that the real and perceived needs of the children are considered. A qualitative research framework seemed to be the most appropriate means of inquiry.

3.2.1. Qualitative research

Qualitative methodology enables a researcher to learn first hand about the social context in which the research is taking place (Bogdan & Biklen, 1982; Burgess, 1985; Silverman, 1993). Hitchcock and Hughes (1995) describe qualitative methodology thus.

By qualitative methodology we mean approaches that enable researchers to learn first hand about the social world they are investigating by means of involvement and participation in that world through a focus upon what individual actors say or do (p. 12).

Bogdan and Biklen describe qualitative research as research that collects data that is descriptive and not easily handled by a more quantitative methodology with its reliance on numbers, frequencies and statistical analysis. Instead, qualitative research and data are usually located in people and their conversations. Most qualitative researchers attempt to understand individuals by interacting with them and capturing

what they say and do, in a setting which is familiar to the individual (Burns, 1990). During this interaction the researcher is framing and reframing questions in an attempt to understand behaviour, issues and concerns within the individual's own terms of reference. As Bogdan and Biklen comment:

You are not putting together a puzzle, whose picture you already know.
You are constructing a picture which takes shape as you collect and
examine the parts (p. 29).

Further, Hitchcock and Hughes (1995) and Grbich (1999) also argue that qualitative research has the potential for encouraging a closer relationship between researcher and those being researched. Qualitative research is concerned with people, their interpretation of a situation and the meanings they may attribute to the situation. As Burns (1990) comments, "qualitative forms of investigation tend to be based upon a recognition of the importance of the subjective experiential 'life-world' of human beings" (p. 9). The qualitative researcher listens as the subjects of the research tell their story and then attributes meaning to their story. This is important when working with children, particularly if children are to be encouraged to feel at ease and to give their views without feeling pressured.

A qualitative research methodology lends itself more naturally to some educational research. In the educational setting a qualitative approach is more likely to place the teacher and children at its centre, allowing them to more naturally become participants in, rather than objects to be researched. Verma and Mallick (1999, p. 27) comment that a qualitative approach is more likely to reflect "the experiences, feelings or judgements" of those taking part in the research because they are more likely to feel valued. Bogdan and Biklen (1982, p. 20) expand on this, arguing that qualitative methods may have gained in popularity because of the inclusion of "the views of the powerless and the excluded". They said "[a]s part of their typical research process, qualitative researchers studying education solicited the views of those who had never felt valued or represented". This also had relevance for this study, where the methodology chosen had to capture and reflect what children said and the children themselves were to feel that what they said was valued.

In summary, there are several characteristics of qualitative research that makes it attractive to this study. First, it is able to appreciate the participants' perspective; second, it is able to understand the participants' interpretation of the topic in the context of their own lives; third, it encourages the use of a variety of research strategies to gain participants' views, and fourth, it reports on participants' views and understanding rather than relying on statistics, numbers and frequencies.

3.2.2. The qualitative – quantitative split

The decision to employ a qualitative methodology made it necessary to take a brief look at the qualitative - quantitative split. Quantitative methodology is characterised by control, operational definition, replication and hypothesis testing, and has been seen by many as “the bedrock of research” (Silverman, 1993, p. 20).

Bogdan and Taylor (1975) suggest that quantitative research has its origins in positivism, and can be traced back to nineteenth and twentieth century theorists such as Auguste Comte and Emile Durkheim. The positivist, as Bogdan and Taylor point out, produces quantitative data which is based on cause and effect. Grbich (1999) and Bogdan and Taylor further suggest that statistical analysis of the data, while it may look at cause and effect, fails to seek an understanding from the participants. Positivism, point out Cohen and Manion (1989), “may be characterised by its claim that science provides [researchers] with the clearest possible ideal of knowledge” (p. 12).

According to Cohen and Manion, the research methods inherent in scientific research are based on empiricism “which holds that certain kinds of reliable knowledge can only originate in experience” (p. 13). Scrutiny of data must yield proof or strong confirmation in a research setting. The scientific researcher always begins with a hypothesis and then sets out to test it deductively.

The criticisms levelled at quantitative approaches which were usually referred to as positivism (scientific method), gained impetus during the mid-nineteenth century when critics attacked its “mechanistic and reductionist view of nature” (Cohens & Manion, 1989, p. 23) because it effectively stifled choice, individuality and moral responsibility. Bogdan and Biklen (1982) point to the often acrimonious

debate between quantitative researchers and the more qualitative phenomenologists. Phenomenologists argued that quantitative research failed to recognise the experiences of the participants and therefore often presented a biased picture through its results. This is in direct opposition to the phenomenologist who uses qualitative methods such as interviews, conversations, observation and other participatory approaches to gain an understanding of the world as the participants interpret and see it (Bogdan & Taylor, 1975).

Many educational researchers during the mid-1970s expressed their dissatisfaction with quantitative research, which had relied too much on numbers. There had been no resolution of the problems in schools such as behavioural problems and the ways in which children learnt, which were largely tested by quantitative means. Silverman (1993) made the point that qualitative methodology then became the attractive option. The more descriptive and illuminative analysis of data made qualitative methodology more contextually meaningful.

That is not to say that one methodology is better than the other. Qualitative methodology also has limitations. Burns (1990), for example, makes the point that because of the subjective data and personal descriptions, it is often hard to apply “conventional standards of reliability and validity” (p. 11), and there may be difficulty in the replication of the findings. A further limitation is time. Attempts to understand feelings and perspectives of a participant usually take more researcher-time than does quantitative research. In addition, the relationship which develops between participant and researcher has a possibility of bias in researcher reporting. There is, therefore, an advantage in drawing on aspects from both quantitative and qualitative methodologies (Bogdan & Taylor, 1975; Glaser & Strauss, 1967). Some quantitative methodology was used in this study, and is explained later in the chapter.

3.2.3. Using qualitative research with children and its relevance for this study

The value of using qualitative research with children in this study will become clearer when grounded theory is described in detail later in this chapter. However, since this study is mainly about gaining children’s views, a brief acknowledgment is

made here of the relevance of qualitative research when doing research about or with children.

Researchers seeking to understand children's ideas and views of subject matter, such as health, must enter "the child's world and meanings in an attempt to get the child's perspective from the inside-out" (Greig & Taylor, 1999, p. 44). In an attempt to gain children's views about their learning in health, it is important that the methodology enables the researcher to hear the *voice* of the child. Qualitative research, urge Greig and Taylor, allows this to take place, although it should not be viewed as an exclusive methodology when working with children. Greig and Taylor further argue that the historical assumption that children were not entitled to have a point of view meant that, in most quantitative research, children were often largely overlooked because of their inability to provide valid data. This study is one of a growing number of studies choosing a qualitative methodology in researching with children.

Several aspects of qualitative research make it the most suitable for this study, not least being that if the researcher wanted to encourage children to give their views freely and honestly then children's trust would have to be gained. Also the physical and social environment had to be barrier-free. The more formal one-to-one interview, for example, could inhibit the children and cause anxiety. Burgess (1985) and Kincheloe (1991) stressed the contextual nature of qualitative research. Thus in this study, children were initially encouraged to talk about their individual ideas about the meaning of health drawing from their own life experiences.

In summary, the differences between quantitative and qualitative methodology carried out with children can be described as follows. Quantitative research objectifies the child; collects measurable data in controlled settings from a large sample of subjects; has set prescriptive questions asked through a series of tasks; carries out statistical analysis and predicts the outcome. By contrast, qualitative research identifies the child subjectively; collects data in a more child-friendly context while utilising a variety of strategies which attempt to include children as participants and to gain their perspective; rather than control, the atmosphere is made as child friendly and as natural as possible; data are analysed using children's

narratives and interpretations, and this analysis is used to explain and describe the topic or situation. An explanation of qualitative research by Janesick (2000) is that the qualitative researcher is interested in capturing the lived experience of the participant so that their meanings may be better understood.

3.3. Theoretical framework

Glaser and Strauss (1967) point out that an important aspect of qualitative research is grounded theory. Further, both they and Strauss and Corbin (1990) identify the grounded theory approach as a set of techniques which first identify categories and concepts that emerge from text and then link the concepts into formal and substantive theories. Grounded theory has more recently been used by social sciences to examine a range of topics, and has been found particularly useful for researchers working with children. As Greig and Taylor (1999) suggest, theory may be hidden in a child's understanding and interpretation of events. They explain:

The notion that theory is created from or emerges from data is consistent with the view that the child is subjective in nature and that [the child's] understanding, knowledge and meanings are subjective, and emerges in interaction with others in a given context. Hence, the qualitative framework entails a methodology in which theory is 'grounded' in data such as observations, written reports, texts and their interpretations" (p. 43).

Grounded theory is a methodology developed and refined by Glaser and Strauss in the 1960s as a process, although not the exclusive process, for the analysis of qualitative data. They describe grounded theory as the "discovery of theory from data – systematically obtained and analysed..." (p. 1). Data, they say, are obtained by using various methods, coded and analysed, which can provide the researcher with "relevant predictions, explanations [and] interpretations" (p.1). Ideas are discovered and developed, and then verified through a careful process of data collection and analysis of that data. The researcher does not start out with a theory and then try to prove it. Rather, as the researcher interacts with and analyses data, key concepts and theory begin to form. Charmaz (2000) explains "as grounded theorists refine our categories and develop them as theoretical constructs, we are likely to find gaps in

our data and holes in our theories” (p. 519), at which point further data are collected to help further interpretation and development of meaning. In essence, grounded theory is interpretative. The researcher is, via a variety of strategies, attempting to interpret meanings and understanding from a participant’s point of view. Glaser and Strauss (1967) describe grounded theory as “derived from data and then illustrated by characteristic examples of that data” (p. 5).

The use of qualitative grounded theory has an advantage over quantitative theory, particularly when working with children. Greig and Taylor (1999) say that the purpose of quantitative theory is to test hypotheses where the researcher may deduce the outcome. Grounded theory, on the other hand, uses “inductive processes to build theory” (p.58). Quantitative theory is characterised by control, operational definition, replication and hypothesis testing. Burns (1990), as mentioned earlier, claims that the main strength of the quantitative method lies in its precision and control. This, when working with human subjects and in particular children, does not allow for individual explanation of a situation or event, and sometimes the real significance of what might be implied or understood is lost. By contrast, as suggested by Greig and Taylor (1999), “a grounded theory approach will describe the data...” (p. 61), and in this present study, theory emerges as children express their views, and data are obtained. Greig and Taylor use the analogy of building a house in describing hypothesis testing and grounded theory. Quantitative deductive theory employs a *top-down* approach, whereas inductive grounded theory starts from the *bottom-up*.

3.3.1. Use of the grounded theory approach

Grounded theory has proved useful when a researcher is attempting to understand the research participants’ feelings. For example, Jones and Tannock (2000) undertook a study with primary school children to explore their views about death and bereavement. A scientific approach may well have presented a statistical analysis of numbers and frequencies about how many children had experienced loss of this kind but would not capture the feelings from children about their loss. Nor would such an approach allow children to express their perception about the impact of bereavement on their individual lives. In wanting to capture these feelings from the

children, and realising the sensitivity that would be needed, Jones and Tannock considered approaches to the research process which would be non-confrontational. They used story telling, where they noted children's reactions to events in the story, and writing, where children could tell their individual stories or experiences. Such techniques provided the potential to generate children's talk. An approach such as grounded theory lends itself more naturally when attempting to hear the story from the inside out (induction). However, to understand how children might feel, how children understand a situation and are able to explain it demands a certain level of skill from the researchers as they seek to interpret and understand a situation from a child's point of view. Greig and Taylor (1999) suggest that this "is the qualitative aim of discovering or entering the subjective experience and perspective of the child" (p. 45). In the instance cited from Jones and Tannock, there were no stated questions at the beginning, as there was an expectation that these would emerge from the children's stories and written work.

In summary, then, the mechanics of grounded theory generally adopt the following format: researchers produce transcripts of an interview or other relevant data, such as children's writing; close interaction with data enables the researcher to identify potential categories and themes; as the categories emerge, data are extracted and comparisons made between all collected data, and where possible, links are made; relationships between the categories are used to build theoretical models; results are then analysed and compared with other similar studies; the results and analyses are illuminated with quotes from interviews and conversations which puts the outcome into context and gives acknowledgment to the views and *voices* of the participants.

3.3.2. Relevance of grounded theory to the present study

The advantage of grounded theory for this present study is that the *voices* of children and their views were being explored in relation to their learning in health education. There was no preconceived notion as to what could be expected by way of data. As has been discussed previously, and Stern (1980) affirms, grounded theory allows the researcher and participants to explore new territory and knowledge

together. Further, since the use of qualitative grounded theory is growing in popularity with other social researchers, a comparison of the results with other similar studies is possible, and this is a basic tenet of the methodology.

Similar to many other studies which conduct research with children, this study uses a relatively small number of participants and, as Grbich (1999) points out, grounded theory is especially useful for small scale research. As Greig and Taylor (1999) explain, the researcher may initially begin with a small group, who, once they have identified certain elements of data or phenomenon, may well provide the researcher with the incentive to explore further with other groups.

Another advantage is that data are grounded in the views and *voices* of children. As mentioned earlier, Glaser and Strauss (1967) pointed to the way in which grounded theory is derived from data, and further, is then illustrated by examples from actual conversations.

In this study children not only provided pictures of their knowledge and understanding of the concept of health and their feelings about what was taught as health at school, they were also able to express their views and propose their ideas about what they thought they ought to be learning about. The use of the grounded theory approach enabled children to feel important and valued, and further, some recognised that what they might say could make a difference to the content of health curriculum taught to them in the classroom.

3.4. Methods

Graue and Walsh (1995) explain that in order to enter the children's world and to gain their experiences and views, "it is important to watch children's interactions closely, to listen to their explanations of actions and to be respectful of their *voices*. It requires basic methods of interpretative research..." (p. 148). The qualitative grounded theory approach employs a methodology in which theory is grounded in data such as interviews, story telling, observation, drawing and writing. More recently some innovative methods have been used by various researchers working with children. These will be described later.

Research methods are the instruments and tools by which data are gathered. They are, according to Hitchcock and Hughes (1995), the “tools and techniques of social research and involve technical, practical and ethical dimensions” (p. 20). Hitchcock and Hughes further suggest that the choice of method is largely determined by the research topic and the kind of data to be collected. The question for every researcher is whether the methods chosen would produce valid and reliable data.

Lewis and Lindsay (2000) suggest that in reconciling which method to use when exploring the views and perspectives of children, the research questions should be the determining factor, strongly influenced by ethical considerations. Further, they suggest that responses to the questions must be shown to be valid and that the study can be replicated and still produce similar results. Greig and Taylor (1999) make the comment that “ asking questions in designing and doing research with children is a skill which needs to be cultivated...” (p. 65). They also reaffirm that researchers have to deal with many of the traditional assumptions made about children’s inability to answer questions. Lewis and Lindsay make the following observation:

Many adults decide what is ‘best’ for children, and that is proper: parents and professionals including teachers and care workers have important responsibilities. But children have rights, and they also have perspectives which are unique to themselves. It is our task as researchers, from both practical and ethical considerations, to ensure that we ask the right questions in our studies, those which are important, and that we conduct our research in a manner that optimises the opportunity for children’s perspectives to be listened to – and heard (p. 197).

The methods were selected on the basis that children were the main participants in this study. Getting their views and hearing their *voices* were the major goals. Qualitative researchers have many methods from which to draw, such as the use of photographs as research tools (Walker, 1993); the use of videotape (Mehan, 1993); observation, diary and journals (Dockrell & Joffe, 1992); vignettes (French, 1987); television soap operas and documentaries (Oakley, 1995); drawing and writing (Williams, Wetton, & Moon, 1989), as well as those of observation, interview, survey and questionnaire.

After extensive reading of available literature on previous studies, and also meeting with research colleagues at Southampton and Warwick Universities, it was decided to use a variety of research methods. An in-depth personal conversation with Noreen Wetton, originator of the innovative ‘draw-and-write’ research technique, aroused an interest in employing the technique in this study.

The methods employed were predominantly qualitative, although some quantitative analysis was used when analysing draw-and-write data and checking for reliability of the emergent categories (explained in Chapter Four). Chi square was also used to strengthen the analysis of findings between different groups in chapters 5 and 7 and a simple five-point Likert attitude measurement scale was used to measure children’s and adults’ attitudes about the importance of health education in Chapter 6. The selected methods were

- draw-and-write illuminative technique
- conversational interview
- questionnaire
- Chi square testing
- Likert 5-point measurement scale

3.4.1. Draw-and-write as an illuminative technique

McWhirter, Collins, Bryant, Wetton, and Newton Bishop (2000) make the point that illuminative research is “primarily a qualitative tool for understanding how children explain and construct ideas and concepts” (p. 204). Draw-and-write (d-w) is a technique whereby children are asked an open-ended question and then invited to draw their response and to write something about what is happening in their pictures. It is one of many methods which can be used when carrying out illuminative research. Noreen Wetton, in a personal conversation explained her technique as follows:

Draw-and-write starts with children’s broadest conceptions and perceptions, and the researcher then gradually narrows this down and defines key issues and categories for analysis. Draw and write provides the researcher with insights into children’s changing perceptions; allows

us to understand the logic that underpins children's insights, and often, demonstrates their misconceptions. Children's logic is based, firstly, on what they know. For example, one of the greatest skills that children have is making sense out of the world around them. Second, what they half-know. For example, the sense they make is sometimes non-sense, but it is never nonsense.

The asking of children to draw pictures in such psychological analysis as art therapy, and in anthropological studies, has a lengthy history. This was discussed in the literature chapter. Further, Eiser (1985) gives examples of research where children were invited to draw the insides of their bodies and to label where they thought the various organs were located. Eiser also acknowledged the possibility that Schilder and Weschler were the first researchers to use children's drawings as an investigative tool as far back as 1935. Wetton (1972) first devised d-w when she studied children's play at nursery school. Subsequently, she was invited to devise a similar method of research for the Health Education Unit at Southampton University to help to assess the health knowledge of school-aged children. This research resulted in the publication of the *Health for Life* books (Williams et al. 1989a,1989b) which provide guidelines for the draw-and-write technique, as well as a comprehensive set of curriculum materials for primary school teachers. Since that time, many researchers such as McGregor, Currie and Wetton (1998), McWhirter et al. (1994, 1996, 1998, 2000), Pion et al. (1997), Pridmore (1996), Pridmore and Lansdown (1997), Zivkovic and Marinkovic (1994) and others, have employed the technique to elicit the children's views, perceptions, knowledge and needs regarding their health.

Although d-w has been increasingly used by social researchers working with children, the method is not without its critics. Backett-Milburn and McKie (1999) and Gabhainn and Kelleher (2002) advise caution to researchers who might rely solely on data drawn from d-w. They argue that children might well draw what they think the teacher wants them to draw; some items may prove too difficult to draw; data could be open to misinterpretation if the researcher is not familiar with "dominant discourse in [children's] cultures" (p. 68); and some children could well copy from other children. However, d-w has been successfully employed by a

number of researchers, described and analysed in Chapter Two, particularly where those researchers have attempted to gain access to the children's understanding of health-related issues. This is acknowledged by Backett-Milburn and McKie (1999) although they also argue that health education researchers would do well to consider other methods for children to articulate their views and understandings.

How the draw-and-write technique was used in this present study

It has been previously stated that one of the problems when researching health education and, in particular, when attempting to gain the perspectives of children about their health understanding, is finding a suitable research method that would allow children to be a part of the research process, and would also provide data for purposeful analysis. The d-w technique allowed for full participation by all children involved in the study, and was at the same time an activity with which most New Zealand primary-age children were familiar.

In this study the use of d-w served to introduce the children to the research in a friendly, familiar way, which is consistent with child-centred learning. It allowed children to present their immediate health knowledge as have many of the studies which were sourced for this literature review. Noreen Wetton (the originator of the d-w technique) was visiting New Zealand at a time immediately after the data collection for this study, and viewed the findings. Her comments were that where d-w alone allowed children to give a wide perception of children's health knowledge, the further methods used pressured children to prioritise through questioning and conversation. Children moved from a global view to a more difficult task. The third stage was asking children to project ahead about what they really wanted to learn. Thus, this study does not only find out what children know, but explores what they really want to learn and know more about in the context of their own lives. Children were clearly able to mention some of the more personal areas of health that they wanted more information about.

The d-w tasks were completed in the classrooms of all participating classes and carried out by the class teacher. All children in each participating class were asked to complete two tasks in response to two open-ended questions posed by the classroom

teacher. In Task One, the teacher asked ‘what makes and keeps you healthy?’ and for task two, ‘what makes you not so healthy?’ For Task One, children were asked to draw pictures on a sheet of A4 paper in response to the question and then asked to write something about what was happening in their pictures. The process was repeated for Task Two. A full description of the tasks and children’s responses are described in Chapter Four. Full examples of the instructions are in Appendix A.

The d-w tasks were employed in this study as a point of entry. They were used to provide both researcher and classroom teacher with an awareness of children’s existing health knowledge and understanding (Chapter Four). It was also recognised that there could be limitations as to what children could or would draw, and therefore d-w was not the only research method used in this study.

3.4.2. Conversational interview

Interviewing is one of the most popular and relied on methods of data collection in social research (Denzin, 1989; Marshall & Rossman, 1995; Silverman, 1993). In Marshall and Rossman it has been described as “a conversation with a purpose” (p. 80). Through conversations based around a topic, a researcher aims to find out the participants’ views and meanings attributed to that topic. As the conversation develops, the participants’ views unfold. This type of data collection requires some special research skills such as the framing of probing questions and being a good and careful listener. As has been described by many, interviewing is a digging tool for the researcher (Denzin 1989).

In this study, the interview took the form of unstructured conversations between small groups of participants and the researcher. Denzin points out that unstructured or the nonstandardised interview “gives the interviewer a great deal of freedom to probe various areas and to raise and test specific hypotheses during the course of the interview” (p. 106). In this study, although there was a basic question sheet (Appendix B), it was the participants’ conversations which really gave depth to the interviews. The process of using small focus-groups meant that the social interaction between participants fostered discussion and the sharing of opinions.

The success of a small focus-group interview is dependent on the dynamics within the group. Porcellato, Dugdill and Springett (2002) point out that while the focus-group interview has the potential for generating data in a short space of time, they can also have their problems. In their study with young children Porcellato et al. found that children felt more comfortable when working in small numbers. They also reported that “[a] snowballing effect took place, whereby ensuing comments were stimulated by what others had previously said” (p. 317). Porcellato et al. believed it important to have these “chatty” children in a group as they “are the catalyst for the whole process” (p. 312).

There are limitations to the interview. Marshall and Rossman point out that there may be a reluctance by a participant to share, or they may not share the truth. Additionally, an inexperienced interviewer may misinterpret feelings or what is being said or is meant. In the focus-group interview there might also be time wasted due to the discussion of dead-end or irrelevant issues. It was sometimes necessary in this study, for example, for the researcher to remind the children about the original starting topic. This is illustrated in Chapters Five, Six, and Seven.

Interviewing and this study

Because this study has a central focus on children and making their *voices* heard and their views known, an interview method was needed that was non-threatening and which put the researcher into the role of “listener” to their conversations. Davis and Jones (1996) explain that this may be no easy task as communication with children involves exchanges between partners unequal in age and status. This may often lead the researcher to assume that children’s conversations did not produce reliable data. However, as Lees (2000) points out, children do have information, views, experiences and opinions which are every bit as valuable as those of adults.

Powney and Watts (1987) comment that the essential ingredient of interviewing is talk. In this study, an attempt was made to conduct the “talk” sessions as informally as possible. Conversational interviews were used to allow children to interpret their d-w tasks and to talk about what they had drawn and why. This provided the

researcher with children's existing knowledge about what makes them healthy or what contributes to their being not so healthy. This then led into more informal talk about where, and from whom, children had got their information; what they thought about health education in the classroom and what they would like to learn more about. This also led to discussions about any concerns and issues they had about their health. Children were allowed to talk and share informally their knowledge and experience without undue interruption. Key issues were addressed as they arose in the conversation. Children were encouraged to illustrate their talk with personal stories. At the end of the session each group of children was set the task of identifying areas of priority for their learning about health.

This approach established an informal unrestricted environment for both researcher and participant. Children were told, prior to each interview, that the researcher would like to hear what they were saying and their reasons for thinking the way they did. An environment of trust was established by a reciprocal sharing of personal stories between researcher and children. This helped the children in particular, and enabled them to draw on their own experiences and relate what they knew and thought. Above all, the experience for the children needed to be a fun and enjoyable experience. Bronfenbrenner (1979) points out that when teachers and children share their views during conversation there will be a gradual shift in the balance of power toward the child as each attempts to understand the other.

After consultation with the researcher about the composition of the children's groups each teacher was asked to select an even number of boys and girls to form a small group. These groups, usually five girls and five boys, were selected to represent a social and intellectual cross-section of the whole class. Initially it was planned to interview boys and girls together, but after the first interview session with the Year 6 group, it was found that the boys had dominated the conversation to such an extent that the girls had become frustrated, and their views had tended to be lost. This was a similar finding in work by Gadin and Hammarstrom (2000) where it was found that boys often dominated and determined the course of conversations. To ensure that all children had a fair chance of expressing their views it was decided to interview the remaining class groups in single gender units.

The interviews were conducted in a newly furnished classroom, where the children took great delight in the knowledge that they were the first time users. Children and the researcher sat in a circle on a carpeted floor and the interaction between them all took place at the same physical level and, most importantly, using the same language as a means of communication. In the centre of the circle were placed a tape-recorder, a large white sheet of paper and A4 sheets with pencils for the children. Each audio tape was transcribed immediately after the session.

Class teachers explained the purpose of the group interviews and the children expressed their excitement at the prospect of being included in this section of the study. Most teachers reported that others in the class were equally disappointed that they were not included. Such was the excitement, that with the Years 3 and 4 children, a few moments were taken at the start of the interview sessions to allow them to ask questions freely, and to share their feelings about being interviewed and recorded on audio tape.

The interviews were semi-structured. For each group there were the same basic interview questions (Appendix B). The sessions, however, took particular shape as a result of children's responses and the direction of their conversations. Sometimes the conversations deviated from the set format, but little attempt was made to interfere with the children's avenues of thought, unless the conversation was thought to be getting too much off-track. Such was the case with Year 6 and Year 8 boys. On these rare occasions, the researcher interjected with a leading question to bring the children back to the original conversation.

All children were asked to identify their d-w task sheets, and then invited to talk about what they had drawn. They were then asked why they had drawn particular pictures; what those pictures represented in terms of health knowledge, and what their source of knowledge was. Children were asked if they thought they had omitted anything. This allowed them to identify and talk about any issues and concerns they might have had about health education, and what they would like to learn more about.

The teachers and parents, who had had no preliminary task such as the d-w tasks, were invited to share their views about what they thought health and the health curriculum meant. As with the children, some formatted questions (Appendix C and D) were used as a way-in. Generally, both parent groups and teachers were able to initiate the conversations themselves, and the researcher became a part of the conversation making. Conversations focused around what parents and teachers thought health and health education was; what their views were about health education at school and what they would like their children to learn about in health education. Later conversations centred around the adults' observations and comment about what the children had identified as being central to their learning in health education. These conversations were participant-motivated and led.

Because children, parents and teachers backed up their views with examples from their own experiences stories began to emerge which enabled the formulation of ideas and theories.

Parents, in general, were kept informed about the research via the regular school news sheet. Those parents with children in the participating classes were invited by letter to attend an informal evening interview session. Unfortunately, parental attendance was poor and interviews were only possible with Year 3, 6 and 7 parents. As a consequence, questionnaires (Appendix E) were sent home with each child from the participating classes, with an invitation to their parents to respond and return the completed questionnaire to the school.

Parent interviews were held at the school in an informal setting and atmosphere. Those parents who did attend, mostly female, engaged in conversation about their understanding of health and health education (Appendix C) and then went on to identify areas of health learning that they felt their children should be learning about.

Teachers were interviewed in pairs, in an area of the school in which they felt most comfortable. They, too, talked about health and the health curriculum (Appendix D), and were then invited to suggest the areas of health learning they felt to be most important for their individual age-group of children.

3.4.3. Questionnaire

Although interviews and questionnaires have some similarities, there are also differences. Wiersma (1986) makes the point that the interview is an oral exchange between the researcher and participant whereas the questionnaire is a list of questions or statements, some closed and others open-ended, to which research participants are asked to respond in writing or discussion. Marshall and Rossman (1995) comment that the researcher is dependent on those responses being an honest and accurate reflection of each respondent's beliefs, values and attitudes.

Questionnaires in this study

Greig and Taylor (1999) view questionnaires as a popular research method because they are relatively easy to design and can be quickly distributed to the sample group. It was not originally intended to use a questionnaire for data collection in this study, but because it was not easy to get parents to come along to evening meetings a questionnaire was constructed and sent home with the child for their parents to complete. The questionnaire was therefore not trialed prior to distribution.

The questionnaire addressed the same questions as those asked of the parent interview group. It was purposely short so that responding was not seen as too arduous on the time constraints of parents, and would encourage a positive return rate. It was also easy to understand, clear, and with ample space for responses (Cohen & Manion, 1989). The questionnaire (Appendix E) asked:

- whether parents considered health education to be important or not important, and to state their reasons
- which health issues parents considered to be of importance and why, and
- what parents considered their children should be learning about in health at school.

3.4.4 Chi square

Chi square was used in this study in order to strengthen the analysis of findings and give more power to the findings when assessing difference between particular

groups such as between younger and older children, adults and children and the teacher and parents of older children against younger children.

3.4.5. Likert Measurement Scale

A five-point Likert type measurement scale was used with children and adults to measure their assessment of the importance of health education at school. The same scale was employed with the questionnaire to parents. The scale used the five criteria important, important, not sure, some importance and not very important and participants were asked to place a tick in the box which most reflected their view. With such a small sample the traditional statistical correlation of scores was not done.

3.5. Design of this study

Although this study incorporates elements of both quantitative and qualitative methodology, it is predominantly qualitative, with an emphasis on hearing children's *voices* and gaining their views about their learning in health education. In essence, the research is seeking to test a view that when children and young people are queried about their health views and concerns, their responses might enable teachers to improve the content of their taught health curriculum. Ubbes, Black and Ausherman (1999) argue that "inquiry-based curriculum and instruction can build on what learners already know and extend to what they want to know" (p. 6). This is the basis for a child-centred learning approach which is one of the favoured approaches to learning in most New Zealand primary schools (McGee, 1997).

The literature reviewed enabled the researcher to recognise the very real potential in conducting research with children, both for its educational value and for informing social research (Aggleton et al. 1998; James & Prout, 1990, 1997; Kiddle, 1999; Mayall, 1994,1996; Smith et al. 2000; Waksler, 1991; Wetton & Moon, 1988). Further, as James and Prout and others argue, much research until recently has relied on statistical evidence; there has been little research that has sought the qualitative approach of listening to children's *voices* and gaining their views. An emergent paradigm, suggested by James and Prout, is discussed in the literature review which recognises children's *voices* in research. It is this ideology that provides the rationale

for this study which searches for a deeper understanding of children's experiences in their health learning through listening to their *voices*. A comparison is also made between what children view as essential learning and what adults think they should learn. Aggleton et al. in their 1998 study also considered it important to include adult views to assess whether children and adult views actually complement one another.

3.5.1. The research sample

Since this study sought the views of children and young people, it was decided to conduct the research in a full status primary school. A full status primary school is one which is inclusive of children from new entrants to year eight (age five years to thirteen years). This facilitated coverage of *voices* and views from young children and young adolescents in response to the research questions. Included in the sample were the teachers and parents of the children's sample group.

Aerial School (pseudonym) is a medium-sized school (approx 300+ pupils) located in a residential suburb of a major New Zealand city. The student population represents a wide range of socio-economic and ethnic groups, with a growing number of migrant children from Asian countries who have English as a second language. In common with the structure of most New Zealand neighbourhoods, the student population of Aerial School represents those whose parents are professionals and business executives to those representing the manual labour force and the unemployed.

Aerial School is a decile "Seven" school which prides itself on its modern facilities, relatively small class sizes, and a cooperative approach to management. Senior students have their own student council and are able to make regular recommendations to the senior management team (principal, associate principal and senior teachers).

Decile status of individual schools is decided by government census results. A city is divided into blocks on a grid system, and based on the socio-economic status (ethnic make-up, family income and type of housing) of each blocked area, funding to schools in each area is determined. Thus a decile "One" school will receive more government funding than a decile "Seven" school.

Children in the sample population were drawn from six classes, one from each of Years Three to Eight. The sample also included the teachers of the six classes and the parents of children in those classes. The principal preferred that children in Years One and Two not be involved because of an inconsistent roll. Selection of the sample population is described below. The numbers of children involved were Year Three (23), Year Four (27), Year Five (25), Year Six (28), Year Seven (20) and Year Eight (39). Both Years Seven and Eight are composite classes (a class containing a mixture of Years Seven and Eight) which accounts for the imbalance of numbers indicated in Year Eight.

The teachers from each class volunteered the participation of their classes and their own in the study. Two of the teachers were male and four female. Three were senior lead teachers and three were scale A teachers. There was a range of classroom teaching experience ranging from five to fifteen years. To provide for anonymity, the teachers are simply termed 'teachers' from this point on.

The adult sample group was comprised of the parents of all children involved in the study. As the interview meetings were held during the evening, this trespassed on family and leisure time and therefore numbers attending fluctuated. This meant that the parent sample was probably not representative of the larger parent population.

3.5.2. Gaining access

At the outset the researcher approached the principal informally (Appendix F) with a proposal and the possibility of using Aerial primary school for a research study. The principal viewed it an honour to have Aerial school involved in educational research. However, it should be remembered that teachers, because of new curriculum development, were inundated with Ministry of Education expectations, and the decision to participate in yet another activity had to be the teachers'. An invitation was made to present a full proposal to the staff during which six teachers expressed a keen interest to participate.

The principal asked for a letter to be sent to the board of trustees outlining the intentions of the research and requesting the board's confirmation that the study

could proceed. This was granted on the understanding that the board would receive a final summary report at the conclusion of data analysis.

Once this confirmation and the teachers' acceptance had been received the principal was approached with a time-line for the proposed research and an outline of the time commitment for the teachers. An article for the school newsletter outlined, for parents and caregivers, the nature of the research. It also described how the children would be involved (Appendix G). A letter explaining the research process and ethical procedures (Appendix H) was sent home with children from each participating class. Parents or caregivers were to return the signed ethics form to the school office. The school secretary was familiarised with what was taking place and maintained a folder for each class in the office, into which were placed administrative items.

Since these preliminary administrative tasks took place in term two, it was important that the actual research with the students was undertaken before the end of term three, allowing for parent and teacher interviews early in term four. This was important as the research focus could have been lost as the school year drew to a close. Of significance, too, was that Year Eight students would be leaving the school at the end of term four to begin their secondary schooling.

3.5.3. The process

This was a fairly complicated study as it involved three very different groups of people, one of them being, of course, the children. The two d-w tasks were the opening activity. It was important to use an opening activity as a way-in to the research with children and the d-w tasks provided this. At the same time, a natural progression to the methods used needed to be established ensuring that each method built on the other.

There were children, parents and teachers involved from six different year groups which meant that the same process was necessarily repeated six times. The basic research matrix (Figure 3.1) shows the process followed.

Figure 3.1 The basic research matrix showing the process of the methods used

Sample	A	B	C
Children	X	X	
Parents		X	X
Teachers		X	

A = Draw-and-write
 B = Interview and discussion
 C = Questionnaire

A. Children

- examine children’s existing knowledge concerning health through the use of illuminative d-w exercises (A), and
 - explore origins of that knowledge, share their views and perceptions about health, discuss concerns and issues regarding their health, establish key areas of learning in health through conversational interview and discussion (B).

B. Parents

- examine parents’ knowledge about health in general and health education specifically, and
- share their views and perceptions about health and health education, discuss concerns and issues regarding their children’s health, establish key areas of learning for their children (B and C).

C. Teachers

- examine teachers’ knowledge about health in general, as well as health education in the curriculum
- share their views and perceptions about health education and the health curriculum
- discuss concerns and issues that children might have, establish key areas of learning for the children (B).

Shortly before the d-w tasks were undertaken by the children, the researcher met with the six teachers during their lunch time recess. At this time dates and times were set as to when each class would engage in the two d-w tasks; the teachers were familiarised with their role in carrying out the two tasks; the researcher ensured that all six teachers were comfortable with the tasks; the teachers were provided with all necessary materials for carrying out the two d-w tasks, the collection of completed tasks was arranged with the school secretary, and dates were established with the individual teachers for the researcher's small group interviews with the children from each class. It was agreed that since the teachers best knew their own children, they would select the children to take part in the conversational interview sessions based on ethnicity, and low, medium and high achievement.

Although dates and times were given for each class to do the d-w tasks, they were done as a part of the normal classroom routine and those not wishing to take part could, if they wished, continue with whatever they would otherwise have been doing at that time. The researcher observed in only three of the six classrooms, but was not available for the other three because of the timing. Several of the teachers found that the children became so engrossed in the exercise that they made the decision to conduct the second exercise the following day.

The completed drawings were placed in a class folder and deposited in the secretary's office for collection. Coding and interaction with the data commenced immediately as it was important that the researcher was familiar with what students had drawn before the interview sessions. Pictures were coded and categories decided (described in Chapter Four). Because the categories were too many, key elements and super-ordinate categories were selected. Two independent auditors tested and checked the reliability of the categories.

The group conversation sessions were organised by dividing the school morning into two. One group came from the beginning of the school day to morning interval and the other between interval and lunch break. At first it was thought that one and a half hours might be too much for the younger children, but quite the reverse. There proved to be too little time. It was thought to have boys and girls together, but after the first session, where, as discussed previously, it was found that

boys had dominated the interview session, further groups were interviewed in single gender groups.

As data were coded and key elements identified, it was found that issues raised during the small group conversations often bore very little resemblance to the pictures children had drawn during the draw-and-write tasks.

Children's conversations were transcribed and key elements colour coded against the d-w findings. Copies of the children's chosen key areas for learning were prepared on overhead transparencies to present at parent interviews.

Parent conversational interviews were held at the school over a series of evenings, with sixteen parents in attendance across all of the year groups. After initial discussion, during which parents defined health and health education as they understood them, they were asked to identify what they would most like their children to learn during health education at school. Parents were then shown, through a series of overhead transparencies, what knowledge children had, where they had obtained their health knowledge, what their concerns were and what they would most like to learn about. Parents, after discussion about this new information were then asked whether they would change anything about their selected areas for health learning based on what children had said. Tapes were transcribed immediately after each parent meeting, but were not shown to the parents as they had indicated that they did not think this was necessary. The key points and priority learning areas identified by parents were noted, so that they could be shared with the teacher.

Questionnaires were sent home with children for their parents to respond to, and to return to school the following day. The questions on the questionnaire matched those asked during the interview sessions, and so the combined data were analysed together. In all, 46 questionnaires were returned.

Three teacher conversation sessions were then held at the school. Years three and four, five and seven, and six and eight joined together because of pressing commitments on the teachers' times. The teachers also felt more comfortable working in pairs. After initial discussion, teachers defined health and shared their views about the place of health education in the curriculum. They were asked to identify what they would be most likely to teach children about during health lessons. Through a

series of overhead transparencies they were made aware of what knowledge children had, where they had obtained their health knowledge, what their concerns were and what they would most like to learn about. They were also shown what the parents had selected as key learning in health for their children. After discussion about this new information they were asked whether they would like to alter their own selected areas of health learning based on what children, in particular, and their parents, had revealed. The audio tapes from the sessions were transcribed immediately. The teachers read the transcripts, but made no changes.

An un-scheduled teacher development day was held a year after data had been collected, jointly funded by the school and the university. By this time an analysis had been made of all data, and the teachers and researcher were able to discuss the findings of the research, consider implications for the school and formulate a health curriculum policy for the school. The health curriculum policy was not a purpose of the research, but something the teachers wanted to do.

3.6. Issues: validity, reliability and ethics

No matter what type of research is entered into there will be issues which require the researchers particular attention. Three major issues are those of validity and reliability of the research methods, and general ethical concerns for the study.

Validity and reliability

Greig and Taylor (1999) point out that “the reliability and validity of the research tool are a very important part of the research process” (p. 61). Denzin (1989), Cohen and Manion (1989), Verma and Mallick (1999) and others, point out that it is important to test for, and report on the validity and reliability of the techniques and measurements used to analyse data, so that there can be a degree of confidence in the outcome. In this case, reliability was to ascertain confidence in the data, and validity to check that the chosen categories accurately reflected what children were trying to show through their drawings and conversations. Also, since this was a relatively small study, could its validity be tested by replicating it elsewhere?

Janesick (2000) points out that a qualitative researcher must find alternative ways to think about descriptive validity. She suggests that validity is found in the description and explanation presented by the researcher, and whether that explanation is credible. Janesick argues that “qualitative research design is an art of interpretation from beginning to end” (p. 395) and no claim is made to this being the correct interpretation. To establish validity, audit trails are suggested and this was done in this study, as explained below. A further test of validity is in the power of the statements made by the respondents and the passion with which they are communicated.

The categories from the two d-w tasks were selected by the researcher and chosen from an original coded list of fourteen major category headings and 123 individual sub-categories (Chapter Four). To ensure that the richness of what children had drawn was accurately represented in the more condensed structure of super-ordinate, category and sub-category, a reliability check was carried out by two independent auditors. Neither of the auditors had any prior involvement with this study. They were selected so as not to introduce any bias. One was an educator, who had a good knowledge of the health curriculum document, and the other, a librarian, whose only connection to health education was through the sourcing of text books and story books for the subject. The librarian was also a former primary school teacher. Each of the auditors was given different tasks to assess the validity and reliability of the chosen categories.

Auditor 1: From a random selection of twelve children’s drawings from each of the six year groups, the auditor was asked to indicate into what category each drawing should be placed. The auditor was given no indication of the researcher’s categories, but was asked to determine their own named list of categories.

Auditor 2: This auditor was given a list of researchers categories (Chapter Four) and was asked to match each drawing to a category. Where a drawing was not thought to match a chosen category, the auditor was asked to nominate an alternative.

Results from each auditor were then cross-checked with those of the researcher. With the exception of a few, where spelling made it impossible to ascertain an accurate description of what children meant, the results from the auditors were

consistent with those of the researcher. These few had to be discounted rather than the researcher attempting to use guess work when there was a possibility of misrepresenting what that child had intended. Backett-Milburn and McKie (1999) question the reliability and validity of children's drawings and the technique itself. They suggest that children, in assessing the nature of the task, will produce only what they think the researcher and teacher wants to see. To some extent this may have been the case with some of the older children in this study. Some of the younger children were motivated by what others were drawing, although they were asked to make their work their own. In the main, it did appear that children generally took the tasks seriously. This is further discussed in discussion of the results. The questions which would require answers if d-w tasks were the sole means of data collection are how much of their social world the children are really portraying and how reliable were the data produced? Methods of assessing reliability can vary depending on the nature of the subject under investigation and this study was no exception. A variety of research methods used in this study was an attempt at producing valid and reliable data.

Ethical issues

It is stated very strongly by various researchers such as Greig and Taylor (1999) and Lindsay (2000) and others, that ethics is the one aspect of research which should never be learned in the field. Inherent in the choice of methods, and since this study involved working with children, attention to ethical considerations was critical. As Lindsay (2000, p. 19) states, "Research with children poses the same ethical questions that apply to other types of research". These involve respecting the dignity and rights of all participants, ensuring confidentiality to the participants and in the treatment of information, gaining their informed consent and ensuring that they are aware that they have the right at any time to withdraw themselves and information they possess. Care needs to be taken when undertaking research with children, particularly where they are the informants. It was particularly important that children understood what informed consent meant for them. This raised problems as to how consent was gained, particularly from younger children. While the younger children

appeared to enjoy being involved, it was uncertain whether they actually understood what they were involved in. Many of the older children in years six, seven and eight wanted to know

- why was this research being done?
- what would happen to the information they gave?
- who would see it?
- and, what would happen next?

Little attention has been paid to how researchers working with children should gain their informed consent (Masson, 2000). Many researchers have sought the ethical consent of parents or teachers, on behalf of the children. It seems rare to find that the children themselves have been consulted. France et al. (2000) suggest that often decisions are made about children's involvement before the children themselves are aware of it. Masson points out that:

Reliance on the consent of others denies respondent information which would be thought essential for an adult participating in research, opportunities to clarify the aims of the research, what their role might be, and to decide whether or not to participate (p. 34).

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Ethical dilemmas

Although ethical approval was given by the School of Education Ethics Committee few guidelines exist for educational research which makes direct reference to children. For this study, consent was sought from the parents and teachers on behalf of the children. In hindsight this would be done differently next time. It cannot be assumed that the parents and teachers speaking on behalf of the children are carrying out the children's wishes. It is also a direct contradiction of what was intended in this research, that of giving children a *voice*. However, during the study the safety of the children was always considered to be of paramount importance and, should it be suspected that any child might be at risk and in need of protection, that the researcher would take responsible action.

As mentioned in the literature review, the 1989 *United Nations Declaration of the Rights of the Child* is the main piece of legislation which protects the rights and exploitation of children. The principles of Article 12 are that children's *voices* should be heard when decisions are made for and about them.

During one participant conversation an issue arose which suggested that the child's safety may have been at risk, and this merited some concern. Colleagues at Warwick University (UK), who were, at the time, writing about ethical issues when working with and talking to children were consulted. Their advice was that the child's safety is paramount at all times.

An important aspect of this study was that children's safety was never compromised.

3.7 Conclusion

As has been said previously the advantages of employing a qualitative research design were that it could be changed or added to at any time. Interaction with the data was continuous. One step not planned for was the possibility of working with the teachers beyond their final interview session. Two summary reports were written, one for the board of trustees and one for the school, with recommendations from the research findings. With available funding for teacher development, the opportunity arose to have the teachers released for half a day. During this time they were able to discuss the recommendations, made by the researcher, in the report submitted to the school; have their input into further recommendations and, seek ways in which health curriculum within the school might be structured to better serve the needs of the children.

In the final analysis, a comparison of all the findings will be made to see how closely the views of parents and teachers map into the views of their students. This would reveal it is hoped how relevant the present taught health curriculum is and whether or not there might be room for negotiation and change, certainly at the micro-level, and possibly also at the macro level. Sinclair Taylor (2000, p. 32) succinctly sums up the value of involving children at all levels of research with the comment that "Giving children a voice in decision-making makes them visible and

gives them a stake in that process, thereby reducing the chances of their wanting to sabotage it”.

This chapter has outlined the means by which the research questions would be addressed. The qualitative, grounded theory methodology employed while carrying out this study, the methods (draw-and-write, conversational interview, questionnaire and measurement scale) by which data were collected have all been introduced and discussed. Reliability, validity and ethical implications when involving children as participants in qualitative research have also been considered. The research process itself and the setting in which it took place have also been described. On the following page a time-line (Table 3.1) illustrates the period over which this study took place.

The next four chapters will present the results, report on the findings and present discussion about the findings.

Table 3.1. The research time-line

<u>Stage 1:</u>		
• Research proposal submitted	1999	April
• Literature review chapter		
• Initial verbal approach to School	1999	July
• Official written proposal, research format and outline of procedure		
• Permission sought from board of trustees		
• Staff meeting	1999	August
• Newsletter to parents		
• Individual letters to classes involved		
• Ethical approvals sought from all parties		
 <u>Stage 2</u>		
• Teachers learn draw-and-write (d-w) method	1999	August
• D-w tasks with children (coding and analysis)		August September
• Children's interviews		
• Transcript preparation		
• Analysis		
• administer measurement scale	1999	October
• Parent interviews /questionnaires		October
• Transcript preparation		
• Analysis		
• Teacher interviews	1999	November
• Transcript preparation and checking		December
 <u>Stage 3</u>		
• Further coding, analysis, results and findings	2000	
• Report to school and board of trustees	2001	July
• Teacher development day	2001	September
• Writing chapters and report	2001/2	
• Completion	2003	April

CHAPTER FOUR

Draw and Write: A way in... Results, Analysis, and Findings

4.1 Introduction

This chapter reports on and analyses the results of the two draw-and-write (d-w) tasks undertaken by all children in the classes involved in the research study. The two d-w tasks were conducted in each classroom under the guidance of the class teacher. As mentioned in the previous chapter, d-w was employed as a means of including all children in the research, and as an entry point to the research study. The two d-w tasks were used to illustrate the extent and depth of the children's existing health knowledge.

In this chapter an explanation is given about how the two d-w tasks were used in the classroom; how children's drawings were categorised; which categories were chosen and why. Reliability and validity of data gained from the children's drawings were explained in the previous chapter. Results of the two d-w tasks are then reported on with an accompanying commentary followed by discussion of the findings.

4.2 The way in which draw-and-write was carried out

Two d-w tasks were conducted in each of the six classrooms and overseen by each class teacher. Prior to presenting the tasks to the children the six teachers met with the researcher to discuss the tasks, the process of d-w and the collection of the completed task sheets. The teachers were each provided with two folios which contained an information sheet (Appendix A, d-w instructions), and enough blank A4 sheets of paper for the children. The A4 sheets were headed with the two tasks required of the children. At the bottom of each sheet were two small boxes in which

children were asked to indicate their gender and year group. The d-w task sheets were headed up:

- Task 1: What makes and keeps me healthy?
- Task 2: What makes me not so healthy?

The teachers were asked to carry out the tasks in the classroom during teaching time. They introduced d-w by explaining that the school was helping out with a research study about what children knew and thought about health education, and that the d-w tasks would enable the researcher to find out the extent of their health knowledge and understanding. It was explained to the children that their class teacher and parents were also invited to take part in the research. The teachers then asked the children for their help. Also stressed during this introduction was that children did not need to take part if they did not want to. There was absolutely no pressure applied, and any child not wishing to take part was able to continue with some other learning activity in the classroom. With the exception of one child, all children took part in the two d-w tasks. The children were told that their parents had already received information of the proposed research via the school newsletter. Also, that all parents of children in the six classes directly involved had received personal letters, explaining the research and asking for their permission for their child to take part. Only one parent had initially refused permission, although this was subsequently found to have been a misunderstanding on the part of the parent rather than an objection to the research itself. In three of the classrooms, the researcher was an observer and children were invited to ask any questions and to raise any concerns they might have about the research, such as, what would happen to their completed drawings.

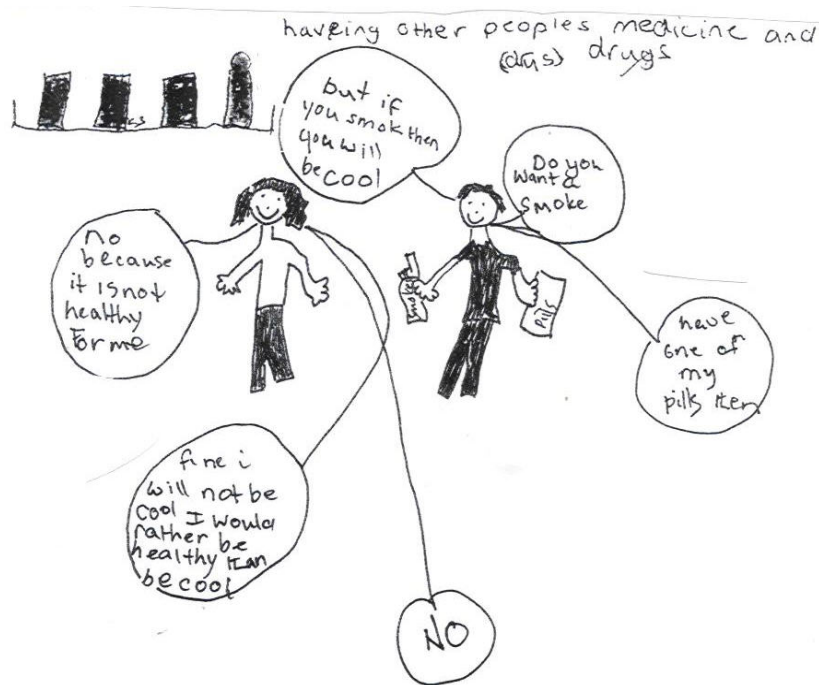
Each teacher approached the task differently. In one classroom the teacher asked the children to put their heads down on their arms, to close their eyes and try to imagine all the things they might do to make and keep themselves healthy, or not so healthy. While the children were thinking, the A4 sheets were distributed. The children were then invited to draw pictures representing what they had been thinking about and to write something about what they were doing in their pictures. The completion of one task took much longer than originally anticipated, and most

teachers subsequently completed the second task on the following day. The intervening time may have influenced children's drawing, but there was no reason to suppose that this had any influence on the results.

With the exception of one child, the children in the six classes representing Years 3 to 8 entered into the spirit of the tasks with energetic enthusiasm, and very quickly filled their A4 sheets of paper with a variety of drawings. Some filled one sheet of paper and requested another so that they were able to continue to contribute. There were no limitations to the way in which individual children responded. Some of the children drew many different pictures covering a variety of aspects in response to the tasks, others chose to "write" only, while a few chose to draw a scenario with speech bubbles. The scenario shown in Figure 4.1 is an example of peer pressure and drugs. Although not suggested, some children requested that they might be allowed to colour in their drawings if they thought they had completed the task.

Figure 4.1 Scenario with speech bubbles showing what makes you not so healthy

Year 6 (f)



Once both tasks had been completed, the children's drawings were returned to the class folio and placed in the school office for collection by the researcher. Coding of and categorisation of the drawings started immediately.

4.3 Categorisation of the drawings

Categorisation of the children's pictures was a lengthy task. It was important that the richness of the drawings illustrating what the children knew about was portrayed accurately, and that the depth of their knowledge was acknowledged in the choice of category. It was also important that the results did not merely represent statistical evidence, although with the categorisation process this was difficult.

MacGregor et al. (1998) gave some useful pointers for analysing d-w data. They suggested that "we should avoid forcing the results of d-w into a more rigorous quantitative analysis, involving cross-tabulations or significance testing" (p.310). They also said that the more data were quantified the more likely it is that a child's true intent may be lost. In reporting results researchers have often got caught up with the frequencies and percentages, when the real data were there in the pictures.

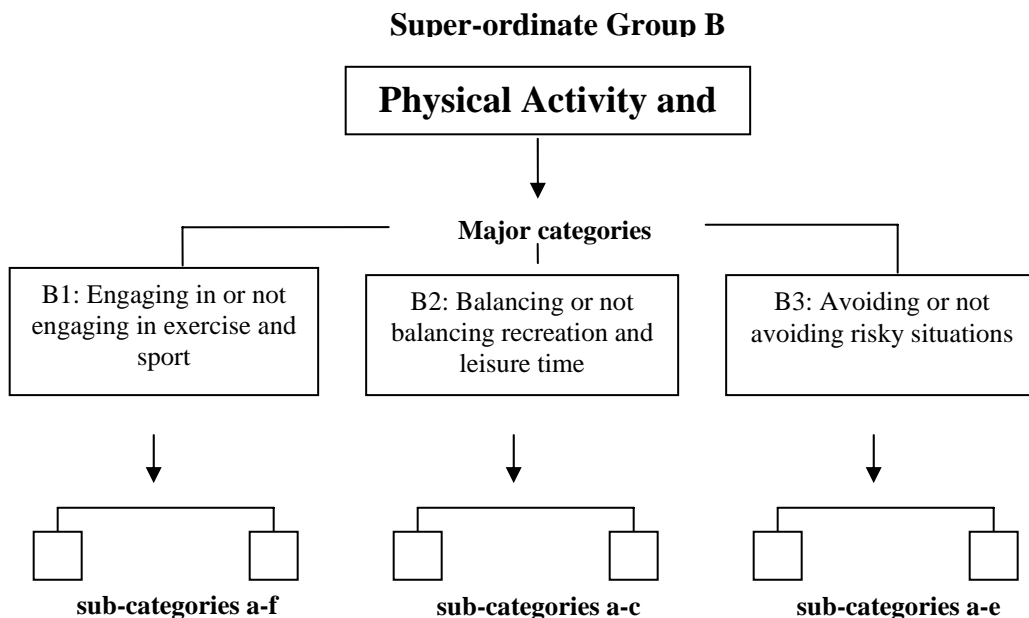
Sometimes it was a challenge for the researcher to interpret what children actually meant by the drawings. In some cases, especially with the younger children, where the teacher realised that there might have been some confusion about what the children meant because of their spelling, a translation by that teacher was added to the picture. The teacher asked the children to explain what they were trying to say as they were working on the picture. In one instance, a child had drawn what appeared to be a bunch of grapes, but the text 'riderons' bore no apparent relationship to the picture. A chance conversation with the young daughter of a colleague (8 years-of-age) revealed that 'riderons' were the little blackcurrant people in a television advertisement for the fruit drink Ribena. It was explained that 'riderons' represented the amount of vitamin C contained in a glass of Ribena. In fact, the child's original drawing had represented a great deal of knowledge about the value of vitamins for maintaining health.

4. 3.1 Initial coding and structure of the categories

Every drawing was colour coded under temporary subject headings. For example, where children had drawn pictures of sport, exercise or any fitness activity the pictures were colour coded blue. Where the picture represented food it was colour coded yellow. Every sheet of drawings was carefully worked through in this manner.

At the conclusion of the initial coding it was found that the individual items which had been coded were so many that there was a very real possibility of the data becoming unmanageable. For example, where children had drawn pictures of them playing a sport, lifting weights, going for a run and having a swim, they were all itemised. It was decided that these individual items would be better grouped together into sub-categories, which would make up a major category and grouped together under one super-ordinate group (Figure 4.2). (For a full description of the major categories with sub-categories see Appendix J).

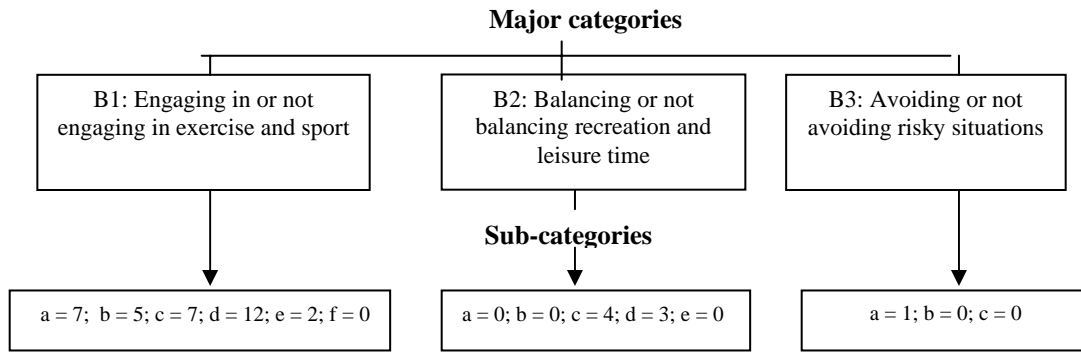
Figure 4.2 Diagram showing the structure of a super-ordinate group



This structural organisation made the coding of drawings easier and data more manageable. Once each page of drawings had been coded the results were recorded on a master sheet by year group. Where children had filled their page with items which fell into the same sub-category, for example playing rugby, playing soccer, going for a run, doing weights, they were counted only once, and recorded under the one main category, Engaging or not engaging in exercise and sport (B1). Figure 4.3 illustrates how each category and its sub-categories were assembled for analysis. In this illustration the major category B is used as an example. The figures shown after each sub-category indicates the number of boys who had drawn pictures which fitted into that sub-category.

Often the meaning in some of the children's drawings were ambiguous, and it was not always easy to place them into one major category alone. The help of the two auditors was invaluable in these cases. Their check on categories chosen, or offers of an alternative, served to determine the most appropriate fit for the few difficult drawings. As far as possible the pictures have been appropriately categorised, but there will always be a question about the judgements made by those coding and categorising a drawing. Backett-Milburn and McKie (1999) and Gabhainn and Kelleher (2002) argue that there is always the possibility of misinterpretation of children's drawings. In this study there were instances where one picture could equally have been placed into different categories because of several interpretations. Figure 4.1 shows for example, that the child, while depicting drugs, could equally be illustrating pressure from peers and the use of decision- making strategies. Drugs were the chosen category because the drawing was in response to the question 'what makes me not so healthy?'

Figure 4.3 Year 7 (Boys) Major category B coding of results for analysis –Task 1



Note: Sub-category index is to be found in Appendix J

4.3.2 Naming of the super-ordinate group

Interaction with the d-w data revealed four key super-ordinate groups. These were found to closely reflect the key areas of learning of the *Health and Physical Education in the New Zealand Curriculum* statement (Ministry of Education, 1999), and were named accordingly. Although many of the drawings resemble those from other research studies, the names of the super-ordinate groups in this instance are unique to this study. They are:

- A: Body care and personal health
- B: Physical activity and safety
- C: Ingestion and inhalation
- D: Mental and social health

The New Zealand curriculum statement did not directly influence the choice of super-ordinate group names. With careful auditing of the children's drawings, the names emerged. Food and nutrition and drugs, alcohol and tobacco were placed together and named ingestion and inhalation, and represented children's drawings of substances eaten or taken into the body in some other way. The one key area of

learning which was not reflected in the children’s drawings was sexuality. This may well have been because such a theme would be difficult to draw and not because children did not have knowledge of the area of sexuality. Backett-Milburn and McKie (1999) criticised the d-w technique because it does not always reflect the true extent of children’s knowledge. However this study accounts for this by talking with and listening to children in the next phase of the research, where further information from the children complemented and went beyond their initial drawings.

Figure 4.4 Diagram showing super-ordinate groups and their major categories

<u>Super-ordinate Group:</u>	<u>Category:</u>	<u>Sub-Cat:</u>
A. Body care – personal health	A1: Affecting personal and environmental health	a - k
	A2: Taking or not taking preventative health measures	a - k
B. Physical activity and safety	B1: Engaging or not engaging in exercise and sport	a - f
	B2: Balancing or not balancing recreation and leisure time	a - e
	B3: Avoiding or not avoiding risky situations	a – c
C. Ingestion and inhalation	C1: Concerning eating habits	a - m
	C2: Concerning drugs, alcohol and chemicals	a - e
D. Mental and social health	D1: Affecting relationships	a - g
	D2: Involving or not involving intellectual stimulation	a - c

Note: Sub-categories (Appendix J)

Within each super-ordinate group were the chosen categories as shown in Figure 4.4. Children’s drawings represented behaviours which were reflected in the category name. For example, if children had drawn pictures suggesting that they should have a shower to stay healthy, they were placed into super-ordinate group A, major category A1.

4. 3. 3 Explanation of Categories

Both d-w tasks are incorporated into the same four super-ordinate groups, so that when the sub-categories were chosen they represented both the positive and negative aspects illustrated by the children.

Super-ordinate Group A: Body care and personal health

This super-ordinate group illustrated all aspects of health related to the care and cleanliness of the body as well as the measures that individuals take to protect the body, including protective measures such as visits to a health professional. Thus the super-ordinate group is broken into two major categories.

Major category A1: Affecting personal and environmental health.

This major category included items drawn which illustrated children attending to personal hygiene and oral care. It also involved those aspects of hygiene which embraced the environmental influences on personal health, such as sanitation and good housing.

Figure 4.5 Examples of children's illustrations of major category A1

Year 8 (f)



What makes and keeps me healthy?

Year 8 (m)



What makes me not so healthy?

Sub-categories in this group (A1a – A1k) included drawings which represented children having a shower, cleaning their teeth, washing and brushing their hair, wearing deodorant, wearing clean clothes, putting rubbish away, and living in cramped housing conditions.

Major category A2: Taking or not taking preventative health measures.

This major category included all items drawn by the children which represented the preventative means undertaken to ward off illness or disease, and generally taking action as a means of promoting their safety and well-being.

Sub-categories in this group (A2a – A2k) included drawings which represented children going to the doctor or dentist, taking medicine, not sharing food, eating utensils or spit, care in the sun and from accidents, and getting enough fresh air.

Figure 4.6 Examples of children’s illustrations of major category A2

Year 5 (m)



What makes and keeps me healthy?

Year 5 (f)



What makes me not so healthy?

Super-ordinate Group B: Physical activity and safety.

This super-ordinate group related generally to all aspects of physical health. Children's drawings illustrated all aspects of physical activity, from basic exercise to their taking part in recreational pursuits and general use of their leisure time. The pursuit of risky situations was also contained within this super-ordinate group of three major categories because most children had depicted pictures of themselves in situations which might result in physical harm, such as climbing on to and falling from the roof.

Major category B1: Engaging or not engaging in exercise and sport.

Into this major category were grouped children's drawings which represented their participation or non-participation in formal and informal sports and exercise programmes or activity.

The sub-categories in this group (B1a – B1f) included drawings of children engaging or not engaging in formal and informal sports, fitness and exercise programmes and also pictures which indicated the importance of having enough sleep (Figure 4.7).

Figure 4.7. Examples of children's illustrations of major category B1

Year 4 (f)



What makes and keeps me healthy?!

Year 5 (f)



What makes me not so healthy?

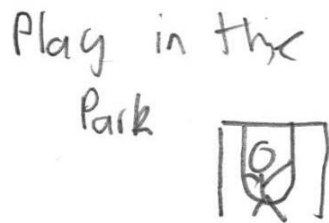
Major category B2: Balancing or not balancing recreation and leisure time.

In this major category were grouped children's drawing which gave their perceptions of recreational and leisure time activity and the need for a balance of the two.

The sub-categories in this group (B2a – B2e) included drawings which showed children watching television, computer games, hobbies, play and having fun (Figure 4.8).

Figure 4.8 Examples of children's illustrations of major category B2

Year 6 (m)



What makes and keeps me healthy?

Year 5 (f)



What makes me not so healthy?

Major category B3: Avoiding or not avoiding risky situations.

This major category considered activities that might be perceived as being risky. It specifically referred, in this instance, to physical activity engaged in by the children that placed them at risk from accident or danger.

The sub-categories in this group (B3a – B3c) included children's drawings of safe or unsafe playing, awareness of safety on the roads and in the swimming pool, climbing trees and onto the roof.

Figure 4.9 Examples of children's illustrations of major category B3

Year 4 (m)



Year 4 (m)



What makes and keeps me healthy?

What makes me not so healthy?

Super-ordinate Group C: Ingestion and inhalation.

This super-ordinate group was named ingestion and inhalation to cover all elements that could be taken into the body by mouth or other means, such as food and other substances as well as drugs and other chemicals.

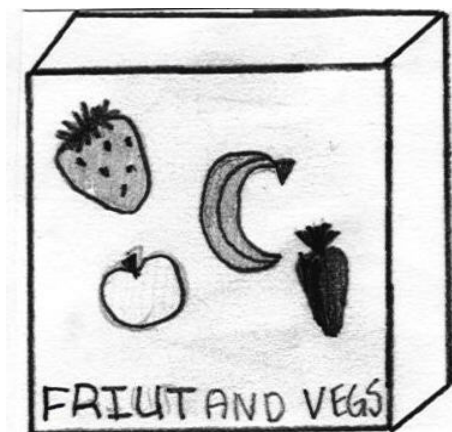
Major category C1: Concerning eating habits.

Into this major category were included all drawings which indicated food, eating habits and diet.

The sub-categories in this group (C1a – C1m) were numerous as it was the subject in which children had most knowledge and to which they contributed most of their drawings. The sub-categories included illustrations of fruit, vegetables and sweets. It also included children's perceptions about eating junk food, fresh food, additives in food, and whether over-eating contributed to being over-weight.

Figure 4.10 Examples of children's illustrations of major category C1

Year 5 (f)



Year 8 (m)



What makes and keeps me healthy?

What makes me not so healthy?

Major category C2: Concerning drugs, alcohol and chemicals.

In this major category were grouped illustrations of drugs, alcohol, tobacco and chemicals (including poisons). The elements in this group represented substances which could be taken orally, injected and inhaled into the body.

The sub-categories (C2a – C2e) included illustrations of the product, or of children engaging in some form of drug habit (Figure 4.11).

Figure 4.11 Examples of children's illustrations of major category C2

Year 6 (m)



Year 4 (m)



What makes me not so healthy?

Super-ordinate Group D: Mental and social health

According to the *Health and Physical Education in the New Zealand Curriculum* statement, the curriculum writers identified mental health as one of the key areas of learning stating that ‘mental health is a broad area, influenced by diverse factors’ (Ministry of Education, 1999, p. 36). In this instance, mental health was chosen as a super-ordinate group since some children had illustrated in their drawings, the importance of family life and relationships with others to their general well-being. In this study it was further decided to include the word “social” in the heading, since most relationships mentioned occurred directly within the social worlds of the children.

Major category D1: Affecting relationships.

This major category included items drawn by the children which illustrated the importance of relationships in supporting their own sense of well-being and personal identity within the group. Also included were children’s feelings, emotions and fears (Figure 4.12).

The sub-categories (D1a – D1g) included pictures which ranged from the importance of people and pets, happiness and love, fear, anger, sadness and grief, helping others, violence and peer pressure and, being concerned about getting old.

Figure 4.12. Examples of children’s illustrations of major category D1

Year 5 (f)



Year 8 (f)



What makes and keeps me healthy?

What makes me not so healthy?

Major category D2: Involving intellectual stimulation.

This major category included children's illustrations of activities which were undertaken, and which challenged the intellect or maintained mental well-being.

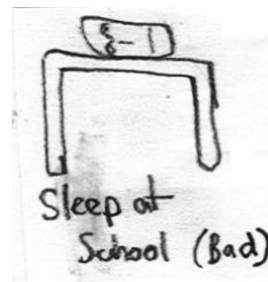
The sub-categories (D2a – D2c) included drawings of the school and classroom, children engaging in learning situations and the importance of having regular employment (Figure 4.13).

Figure 4.13 Examples of children's illustrations of major category D2

Year 7 (f)



Year 7(m)



What makes and keeps me healthy?

What makes me not so healthy?

4.4 Draw-and-write applied only to children in the study

Although drawing has been used for many years, particularly for therapeutic and rehabilitative purposes, the d-w technique was designed for use in schools by its originator Noreen Wetton. As McWhirter, Collins, Bryant et al. (2000, p. 205) explain, it was “devised as a tool for curriculum development” but has increasingly been used by many researchers to find out how children view and think about health. (This was discussed in the literature review chapter). While this study takes into account the views of children and adults, it was children only who took part in these

two d-w tasks. This was a decision made from the outset of the study for several reasons. First, it allowed children to feel that they owned one special part of the research. The children were made to feel important knowing that what they were contributing was important, and that their contributions were valued. Second, teachers did not have the time to take part in any additional activity and parents, particularly those with young families, found difficulty in attending evening meetings. This is not to say however, that d-w could not have been usefully employed with the adults. The researcher has already used d-w with adult tertiary students as a way-in to curriculum study.

As a “way-in” some very rich data were shared by the children. As Pridmore and Lansdown (1997) noted in their research, the pictures themselves were factual, and represented children’s actual knowledge. As stated earlier, the d-w tasks were used as a starting point, and to gain an initial picture of children’s health knowledge in a comfortable and familiar context.

4.5 Results - introduction

As mentioned earlier, this study involved children from six classes, one each representing Years 3 to 8. All of the children from these six classes took part in the two d-w tasks, which, from this point, will be referred to as Task 1 and Task 2. For example

- What makes and keeps me healthy? - Task 1.
- What makes me not so healthy? - Task 2.

Quantitative percentage tables of results allow the reader to see the full results, and observe any differences between boys’ and girls’ health knowledge. Although the quantitative tables provide the frequency with which children drew pictures representing each category, they do not provide the feelings and emotions observed in the drawings themselves. These are described in the following chapters which will give the results and analysis of the small group interviews. The results presented in this chapter provide the reader with the combined results and analysis of Tasks 1 and 2 by year.

The children drew many and varied pictures, but as previously mentioned they were coded into four super-ordinate groups. Commentary on the findings focuses on the main categories into which children's drawings were placed. The results are commented on under the category heading supported by examples of children's drawings. The children's illustrations and their written comments are reported with no changes made to spelling or punctuation. Observations noted about the children's response to the tasks are made followed by general discussion.

4.5.1 Results

There was a reasonable degree of agreement shown through the pictures, of children's knowledge about what made and kept them healthy, or what made them not so healthy. Any differences between boys' and girls' responses are noted, but generally, the following commentary focuses on the combined results. Tables 4.1, 4.2 and 4.3 and Tables 4.4, 4.5 and 4.6 show the frequency with which children drew pictures that fell into the major categories. The tables also indicate the percentage of children drawing those pictures and the overall ranking of each category. Where children may have made multiple responses to certain categories, it was recorded only once. This decision was made since many pictures represented the same thing. To count each individual item may have resulted in a distortion of the final results. A diagram (Appendix K) details the major category results and complements the following tables.

The major factors which children identified in Task 1 were eating habits (C1), engaging in regular exercise (B1) and personal and environmental health (A1). Other factors mentioned were taking preventative health measures (A2) and drugs, alcohol and other chemicals (C2). Sub-categories of special note (denoted by lower case letter following the main category) were pictures some children had drawn showing themselves putting rubbish into a rubbish bin (A1k), getting plenty of sleep (B1a), living in decent housing (A1j), needing family, friends and other relationships (D1a), taking precautions in the sun (A2d), not sharing drink bottles (A2f), overcoming personal fears (D1c), taking a break to relieve mental stress (B2d) and getting out in the fresh air (A2I). These latter factors were generally limited to a few children.

The major factors which children identified in Task 2 were poor eating habits (C1), not engaging in regular exercise (B1), poor personal and environmental health practices (A1) and taking drugs, alcohol and chemicals (C2). Children from Year 6 on were beginning to identify factors such as the wrong balancing of leisure and work time, and their illustrations depicted behaviours detrimental to health, such as watching too much television (B2a), using the computer for too long (B2b) and not having fun (B2e). Relationships (D1) were mentioned by some children from Year 5 on including fear, neglect, singing and talking, sadness and crying (D1c), love, the need for family, friends and pets (D1a), and forms of violence, such as fighting and having tantrums (D1f).

General commentary on Tasks 1 and 2

For Task 1 children in Year 3 generally covered their whole page with pictures of fruit and vegetables and some children squeezed in a caption on exercise and the necessity of brushing their teeth. Only one boy extended his knowledge of hygiene to include the necessity of keeping the face, hair and ears clean.

Year 3 children also had the tendency to label their drawings, whereas by Year 8 many children were providing a statement which often included a rationale as to why that particular factor was important to the maintenance of health. For example, in relation to water and milk, a Year 8 girl wrote “drink plenty of fluid. You should drink 2 liters of water a day. And milk so it helps keep your bones strong”.

The illustrations in Figure 4.14 illustrate the extension of children’s knowledge as they mature. Not only was there a greater variety of factors, but also a clearer understanding of the concept of health and the consequences of certain risky behaviours. One Year 8 girl recognised the consequences of tobacco if smoke was inhaled. She also worked out that rather than cutting out sugar altogether, moderation could be the better alternative. Fruit and vegetables were still recognised as healthy foods, but the Year 8 girl also had knowledge of the vital qualities of a healthy diet, such as vitamins, minerals, calcium and iron. In contrast, the Year 3 girl displayed a knowledge of the names of foods, with the added caption of “eating fruit and veges”, but provided no further information. Just over half, (56.5%), of Year 3 girls drew a

picture of themselves with a smile on their face in response to Task 1, and it was this which accounted for the positive mental health ranking (D1). Researcher's license, supported by the two auditors, was taken with this interpretation, assuming that to be happy was to be healthy.

In responding to Task 2 there was an apparent lack of recognition by most children of the dangers of engaging in risky behaviours. Out of 160 children, only six of them (five boys and one girl) drew pictures which showed them engaging in risky pursuits, such as that illustrated (Figure 4.15). Additional pictures (not shown) were playing in dangerous places, staying in the water for too long and jumping out of trees.

DRAW AND WRITE: RESPONSE PERCENTAGE TABLES TASK 1

Table 4.1 Girls: What makes and keeps us healthy

Category	YEAR 3 (n=13)			YEAR 4 (n=13)			YEAR 5 (n=16)			YEAR 6 (n=12)			YEAR 7 (n=10)			YEAR 8 (n=23)		
	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank
A1	6	46.15	(4)	6	46.15	(3)	14	87.5	(3)	5	41.67	(3)	7	70.00	(3)	18	78.26	(3)
A2	3	23.08	(5)	3	23.08	(4)	8	50.00	(4)	0	-	(-)	3	30.00	(4=)	9	39.13	(4)
B1	12	92.30	(1=)	13	100.00	(1=)	16	100.00	(1=)	12	100.00	(1=)	10	100.00	(1=)	20	86.96	(2)
B2	1	7.69	(6)	2	15.38	(5)	2	12.5	(7)	1	8.33	4=	1	10.00	(7)	2	8.69	(7)
B3	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)
C1	12	92.31	(1=)	13	100.00	(1=)	16	100.00	(1=)	12	100.00	(1=)	10	100.00	(1=)	23	100.00	(1)
C2	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)	4	17.39	(6)
D1	8	61.54	(3)	1	7.69	(6=)	3	18.75	(5=)	1	8.33	(4=)	3	30.00	(4=)	5	21.74	(5)
D2	0	-	(-)	1	7.69	(6=)	3	18.75	(5=)	0	-	(-)	3	30.00	(4=)	1	4.35	(8)

Table 4.2 Boys: What makes and keeps us healthy

Category	YEAR 3 (n=10)			YEAR 4 (n=14)			YEAR 5 (n=9)			YEAR 6 (n=14)			YEAR 7 (n=10)			YEAR 8 (n=16)		
	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank
A1	4	40.00	(4)	7	50.00	(3)	5	55.56	(3)	5	35.71	(3)	7	70.00	(3)	10	62.50	(3)
A2	0	-	(-)	0	-	(-)	3	33.33	(4)	1	7.14	(6)	2	20.00	(5=)	7	43.75	(4)
B1	5	50.00	(2=)	14	100.00	(1=)	8	88.89	(1)	13	92.86	(2)	10	100.00	(1=)	15	93.75	(1)
B2	0	-	(-)	2	14.29	(4=)	1	11.11	(5=)	2	14.28	(4=)	5	50.00	(4)	4	25.00	(5)
B3	0	-	(-)	1	7.14	(6=)	0	-	(-)	0	-	(-)	1	10.00	(7)	0	-	(-)
C1	10	100.00	(1)	14	100.00	(1=)	7	77.78	(2)	14	100.00	(1)	10	100.00	(1=)	14	87.5	(2)
C2	1	10.00	(5)	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)	2	12.5	(7)
D1	5	50.00	(2=)	2	14.29	(4=)	1	11.11	(5=)	0	-	(-)	2	20.00	(5=)	3	18.75	(6)
D2	0	-	(-)	1	7.14	(6=)	0	-	(-)	2	14.28	(4=)	0	-	(-)	1	6.25	(7)

Table 4.3 Combined Results: What makes and keeps us healthy

Category	YEAR 3 (n=23)			YEAR 4 (n=27)			YEAR 5 (n=25)			YEAR 6 (n=26)			YEAR 7 (n=20)			YEAR 8 (n=39)		
	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank
A1	10	43.48	(4)	13	48.15	(3)	19	76.00	(3)	10	38.46	(3)	14	70.00	(3)	18	46.15	(3)
A2	3	13.04	(5)	3	11.11	(5=)	11	44.00	(4)	1	3.85	(6=)	5	25.00	(5=)	16	41.03	(4)
B1	17	73.91	(2)	27	100.00	(1=)	24	96.00	(1)	25	96.15	(2)	20	100.00	(1=)	35	89.74	(2)
B2	1	4.35	(6=)	4	14.81	(4)	3	12.00	(6=)	3	11.54	(4)	6	30.00	(4)	6	15.38	(6=)
B3	0	-	(-)	1	3.70	(8)	0	-	(-)	0	-	(-)	1	5.00	(8)	0	-	(-)
C1	22	95.65	(1)	27	100.00	(1=)	23	92.00	(2)	26	100.00	(1)	20	100.00	(1=)	37	94.87	(1)
C2	1	4.35	(6=)	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)	6	15.38	(6=)
D1	13	56.52	(3)	3	11.11	(5=)	4	16.00	(5)	1	3.85	(6=)	5	25.00	(5=)	8	20.51	(5)
D2	0	-	(-)	2	7.41	(7)	3	12.00	(6=)	2	7.69	(5)	3	15.00	(7)	2	5.13	(8)

Key: n = number of children engaged in task
f = frequency of responses (1 recorded per multiple response)

DRAW AND WRITE: RESPONSE PERCENTAGE TABLES TASK 2

Table 4.4 Girls: What makes us not so healthy

Category	YEAR 3 (n=11)			YEAR 4 (n=13)			YEAR 5 (n=19)			YEAR 6 (n=12)			YEAR 7 (n=9)			YEAR 8 (n=23)		
	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank
A1	2	18.18	(2)	8	61.54	(2)	12	63.16	(3)	3	25.00	(4=)	5	55.56	(3)	14	60.87	(2=)
A2	1	9.09	(3=)	5	38.46	(3)	7	36.84	(5)	3	25.00	(4=)	2	22.22	(5=)	7	30.43	(5)
B1	1	9.09	(3=)	3	23.07	(4=)	16	84.21	(2)	6	50.00	(3)	7	77.78	(2)	12	52.17	(4)
B2	0	-	(-)	0	-	(-)	2	10.53	(7)	2	16.67	(6)	3	33.33	(4)	6	26.09	(6)
B3	0	-	(-)	1	7.69	(6)	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)
C1	11	100.00	(1)	11	84.62	(1)	19	100.00	(1)	11	91.67	(1=)	9	100.00	(1)	23	100.00	(1)
C2	0	-	(-)	3	23.07	(4=)	8	42.11	(4)	11	91.67	(1=)	2	22.22	(5=)	14	60.87	(2=)
D1	0	-	(-)	0	-	(-)	3	15.79	(6)	1	8.33	(7)	1	11.11	(8)	3	13.04	(7)
D2	0	-	(-)	0	-	(-)	1	5.26	(8)	0	-	(-)	2	22.22	(5=)	0	-	(-)

Table 4.5 Boys: What makes us not so healthy

Category	YEAR 3 (n=10)			YEAR 4 (n=15)			YEAR 5 (n=9)			YEAR 6 (n=15)			YEAR 7 (n=11)			YEAR 8 (n=14)		
	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank
A1	2	20.00	(3=)	5	33.33	(3)	1	11.11	(6=)	4	26.67	(4=)	4	36.36	(2=)	8	57.14	(2=)
A2	2	20.00	(3=)	6	40.00	(2)	1	11.11	(6=)	4	26.67	(4=)	1	9.10	(6=)	5	35.71	(6)
B1	2	20.00	(3=)	3	20.00	(4=)	4	44.44	(2)	4	26.67	(4=)	4	36.36	(2=)	8	57.14	(2=)
B2	0	-	(-)	1	6.67	(6=)	3	33.33	(3=)	9	60.00	(3)	4	36.36	(2=)	6	42.86	(5)
B3	0	-	(-)	0	-	(-)	0	-	(-)	4	26.67	(4=)	1	9.10	(6=)	0	-	(-)
C1	10	100.00	(1)	14	93.33	(1)	7	77.78	(1)	15	100.00	(1)	11	100.00	(1)	12	85.71	(1)
C2	2	20.00	(3=)	3	20.00	(4=)	3	33.33	(3=)	11	73.33	(2)	4	36.36	(2=)	8	57.14	(2=)
D1	3	30.00	(2)	0	-	(-)	2	22.22	(5)	0	-	(-)	1	9.10	(6=)	0	-	(-)
D2	0	-	(-)	1	6.67	(6=)	0	-	(-)	0	-	(-)	0	-	(-)	0	-	(-)

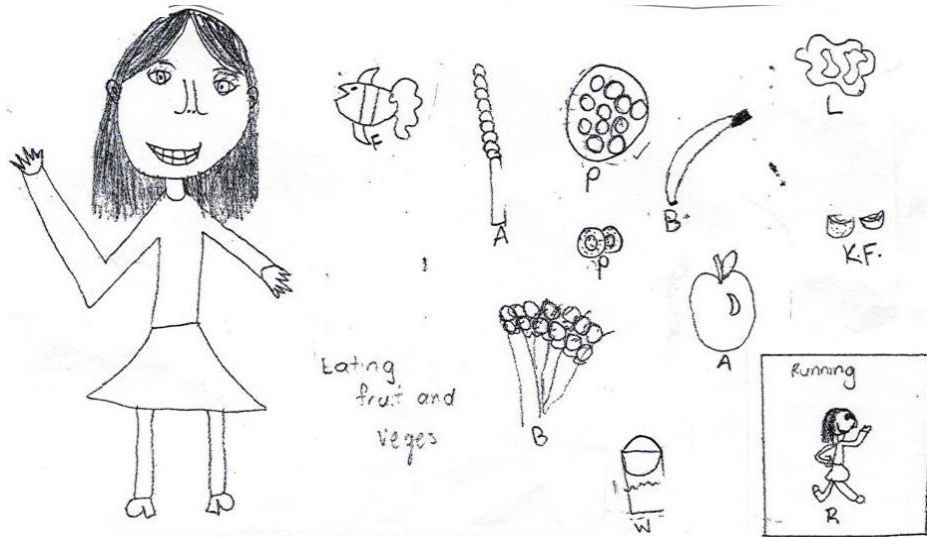
Table 4.6 Combined Results: What makes us not so healthy

Category	YEAR 3 (n=21)			YEAR 4 (n=27)			YEAR 5 (n=28)			YEAR 6 (n=27)			YEAR 7 (n=20)			YEAR 8 (n=37)		
	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank	f	%	rank
A1	4	19.04	(2)	13	48.15	(2)	13	46.43	(3)	7	25.93	(5=)	9	45.00	(3)	22	59.46	(2=)
A2	3	14.29	(3=)	11	40.74	(3)	8	28.57	(5)	7	25.93	(5=)	3	15.00	(6)	12	32.43	(5=)
B1	3	14.29	(3=)	6	22.22	(4=)	20	71.43	(2)	10	37.04	(4)	11	55.00	(2)	20	54.05	(4)
B2	0	-	(-)	1	3.70	(6=)	5	17.86	(6=)	11	40.74	(3)	7	35.00	(4)	12	32.43	(5=)
B3	0	-	(-)	1	3.70	(6=)	0	-	(-)	4	14.81	(7)	1	5.00	(9)	0	-	(-)
C1	21	100.00	(1)	25	92.59	(1)	26	92.86	(1)	26	96.30	(1)	20	100.00	(1)	35	94.59	(1)
C2	2	9.52	(5)	6	22.22	(4=)	11	39.29	(4)	22	81.48	(2)	6	30.00	(5)	22	59.46	(2=)
D1	1	4.76	(6)	0	-	(-)	5	17.86	(6=)	1	3.70	(8)	2	10.00	(7=)	3	8.11	(7)
D2	0	-	(-)	1	3.70	(6=)	1	3.57	(8)	0	-	(-)	2	10.00	(7=)	0	-	(-)

Key: n = number of children engaged in task
 f = frequency of responses (1 recorded per multiple response)

Figure 4.14 Task 1: Comparison between Year 3 and Year 8 knowledge

Year 3 (f)



Year 8 (f)

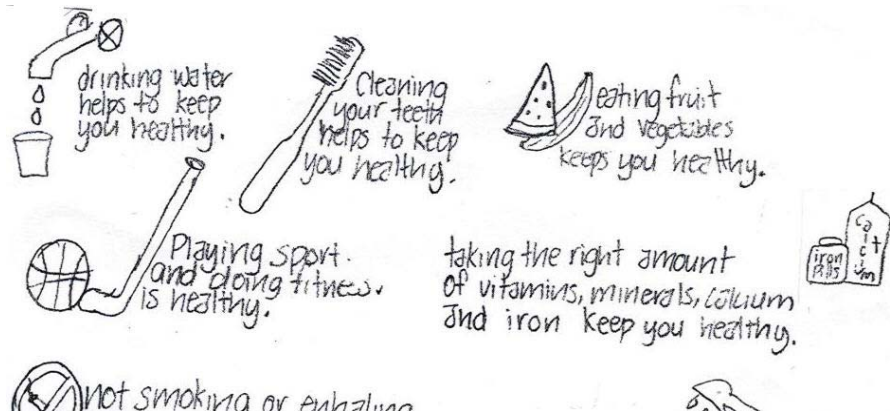
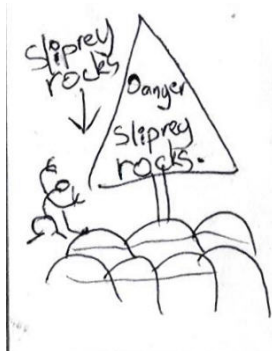


Figure 4.15 Avoiding risky situations

Year 4 (m)



Year 6 (f)



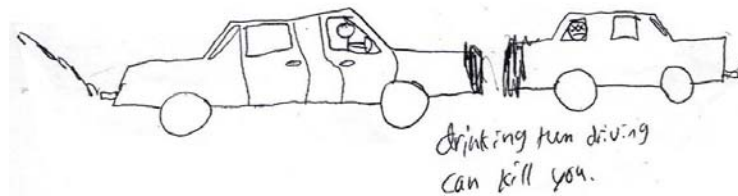
What makes me not so healthy?

Some of the difficulties in coding may account for the results of children's apparent lack of perception about risk. It could be construed that where children drew pictures of drugs for instance, they might have been thinking of risk taking. This is particularly so where children indicated that if you drink and drive you will

crash (Figure 4.16). Similarly, someone climbing on a roof may not, by some, be equated with health.

Figure 4.16 The risks of drinking and driving (B3 and C2)

Year 7 (m)



What makes me not so healthy?

4. 5. 2 Observations by super-ordinate group.

Rather than observing each super-ordinate group in alphabetical order, the comments are based on the results, shown in Tables 4.1 – 4.6 This means that comments follow the rank order of the super-ordinate groups namely C, B, A and D. The tables were constructed after the coding of children's drawings. Illustrations support the observations.

Super-ordinate Group C: Ingestion and inhalation

Both of these two main categories were strongly represented in the children's drawings. Food was by far the most mentioned factor in both Tasks 1 and 2. Drugs and alcohol also featured strongly, particularly in Task 2.

Major category C1: Concerning eating habits: All children referred to food as the major contributing factor to being both healthy or not so healthy. It was quite noticeable that for younger children, the need to eat fruit and vegetables and to drink water formed the basis of their knowledge about food and health in Task 1. Three Year 3 children deviated from the norm and included fish, Weetbix and yoghurt. Younger children filled their A4 sheets for both tasks with foods they should or

should not eat. A greater variety of food types were drawn in response to Task 2. One has to wonder if children hear more messages about what they should not rather than what they should eat. Foods include such items as pizza, and all other types of fast foods, chocolate, biscuits, fizzy drinks and lollies. Year 3 and 4 children illustrated their pages predominantly with confectionary items, whereas older children mentioned caffeine, sugar, fat, and additives such as salt. Nearly all Year 3 children mentioned caffeine, sugar, fat, and additives such as salt. Nearly all Year 3 children recognised that confectionary items (Figure 4.17) contained sugar and that this was detrimental to their teeth.

Table 4.7 illustrates children's written comments about what foods might make them not so healthy and why. In New Zealand schools, children are regularly attended to by a dental nurse, and it would appear that this particular message had made an impact.

Many children from all years, equated food with being fat and this was depicted in their pictures.

Figure 4.17 Year 3 (m) confectionary and dental health



Children from Year 4 upwards provided more information about the foods that were healthy and foods that they should avoid and why. A rationale was often given which indicated a more mature understanding of food. Table 4.8 illustrates children's progressive knowledge about food and eating habits. It should be noted however, that

not all children showed this maturing knowledge. Irrespective of age many children tended to focus on fruit, vegetables and water in both Task 1 and 2.

Table 4.7 Year 3 children's comments about eating and dental health

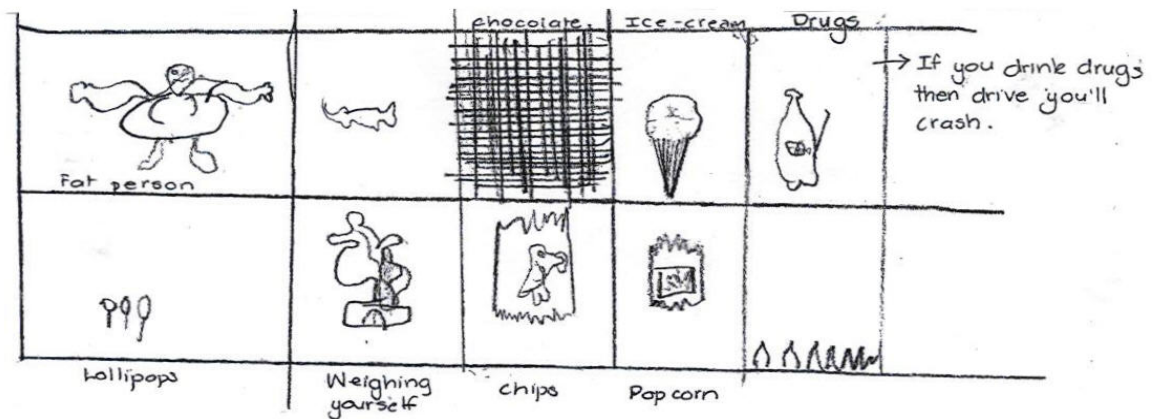
- Don't eat this because your teeth get fillings.
 - Eating all these things will ruin your teeth and you will have to get fillings and get fat.
 - Sugar teeth.
 - Your teeth go rotten.
 - You can get gold teeth.
 - All the sugar goes into your teeth and they go rotten and yellow.
 - The chocolate in M & S my teeth rot.
 - It makes your teeth rot.
 - It makes your teeth go yellow.
 - Lollie teeth.
 - Kills your teeth.
-

Figure 4.18 Equating being fat and eating.

Year 8 (m)



Year 3 (m)



This food makes you fat and not healthy.

Major category C2: Concerning drugs, alcohol and chemicals: As might be expected, the issue of drugs and alcohol held no special significance for children in response to Task 1, but it became a focal issue, especially for older children in Task 2. Children across all age groups drew attention to the issue of smoking and alcohol, but it was

the older children who had advanced knowledge of the harder street drugs such as cocaine and the use of needles. Some Year 7 and 8 boys dedicated a whole page to the issue (Figures 4.19 and 4.20).

Figure 4.20 illustrates just how aware this Year 6 boy was about the many dangers of behaviours involving drugs and chemicals such as sniffing glue, inhaling car fumes and drinking petrol. One has to wonder whether these children had simply been told about these behaviours or whether they had actually been exposed to them at primary school. As revealed in the later interviews, many of these children appeared to be streetwise in terms of teen drugs, hard drugs and the means of access to them. Earlier reference in Figure 4.1 had illustrated how children as young as 9 and 10 years of age were being pressured into taking drugs by their peers.

Table 4.8 Examples of the progression of knowledge about food (Tasks 1 and 2).

Year 3:	Labelled drawings of fruit, vegetables and confectionary (m/f).
Year 4:	I eat all my food to keep healthy (f). Eat lots of fruit and vegetables (m). This food makes you fat and not healthy (pictures of confectionary) (m).
Year 5:	Make sure you eat the right stuff (f). Soda contains sugar that can cause cavities (m). Not eating from the bottom of the packet (f).
Year 6:	Eat at least 3 pieces of fruit everyday (f). Breads got fiber in it. Fruit has lots of vitamins in them (m). Over eating and under eating (f). Fizzy drink has got colouring in it (m).
Year 7:	Eating meat for iron (m). It's important to eat the right foods because if you don't there might be heart trouble or you might get fat (f). Chocolate isn't really healthy because it injects a sugar rush and then it stops (f).
Year 8:	40% free: Nutra grain. Iron man food. Eat healthy food (m). Taking the right amount of vitamins, minerals, calcium and iron keep you healthy (f). Getting your body to rely on sugar for energy (m). Eating food that's past its best before date (f).

Figure 4.19 Examples of Year 8 (m) perceptions of drugs, alcohol and chemicals.

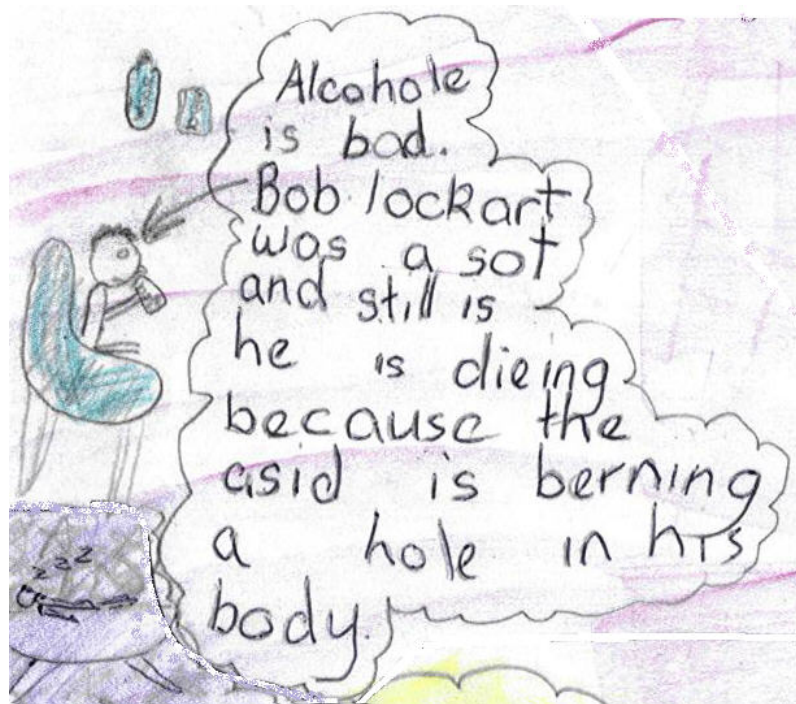


Figure 4.20 Examples of Year 6 (m) perceptions of drugs, alcohol and chemicals.



Most children had drawn pictures of a can or a bottle of beer or spirits. Many drew “no smoking” symbols. The impact of the “drink drive” advertisement seemed to be evident as many children had drawn pictures of a car crash. Drugs and alcohol are high profile health issues in New Zealand. The effects are represented regularly in the news media, and messages highlighted on television, and this may explain the heavy focus by the children. However, a Year 4 girl (Figure 4.21) indicated in her drawing that she had had personal experience of the effects of alcohol within her close social group.

Figure 4.21. Experiences with alcohol - Year 4 girl



Super-ordinate Group B: Physical activity and safety.

Of the three major categories in this super-ordinate group, by far the most strongly represented aspects in children’s drawings were exercise and sport (B1),

particularly in relation to Task 1. The least-mentioned category related to B3 and children's recognition of risky physical activity or behaviour.

Major category B1: Engaging in exercise and sport: All children, regardless of age referred to the importance of doing plenty of exercise, whether through playing sport or participating in organised fitness programmes. After healthy eating, exercise was the most important aspect for Year 3 children in Task 1. Most Year 3 and Year 4 boys depicted themselves with bulging muscles (Figure 4.22), which they obviously equated with health.

Figure 4.22 The importance of exercise for health

Year 3 (m)



As children matured in age, so did their perception of what constituted exercise. Children in Years 5 and 6 had begun to understand the necessity of proper warm ups and fitness programmes to stretch their muscles and thus avoid sporting injuries. Girls, in particular recognised the importance of doing some forms of exercise that were not always specifically sports oriented. They mentioned factors such as taking the dog for a walk, or regularly going for a long walk (figure 4.23).

Figure 4.23 Alternative forms of exercise

Year 8 (f)

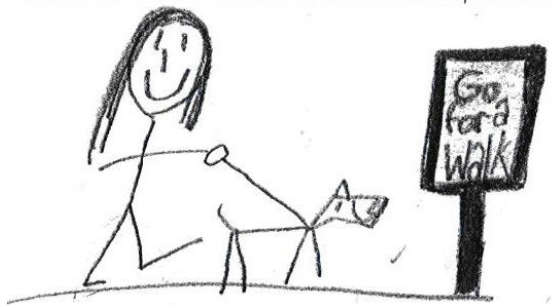


Table 4.7 illustrates children's progression of knowledge about exercise. Of note was the relationship of children's comments to Task 1 rather than Task 2. Exercise and sport seemed to be viewed by most children as being more important in maintaining health. Fewer children had drawn pictures which related to a lack of exercise being possibly detrimental for them. In Task 2 only three children recognised that a lack of exercise might equate to being not so healthy, although others may have recognised it, but did not think to put it down. By Year 4 the number had doubled. By Year 5, 20 out of 28 children drew pictures which suggested that they recognised that a lack of exercise might be detrimental to their health. By Year 6, the boys particularly had also begun to mention factors such as the importance of warm-up exercises to prevent sporting injuries. A variety of exercise programmes was also introduced, such as Tae bo (a patterned exercise programme to music).

Table 4.9 Examples of the progression of knowledge about exercise (Task 1)

Year 3:	run (f) bike riding (m)
Year 4:	I am getting lots of exercise (m). This girl is doing a handstand to stretch her muscles (f).
Year 5:	Stretching keep me healthy (m). Exersize every day (f).
Year 6:	Every weekend, have a bikeride or a walk somewhere (m). Exersize is very good for our health. It keeps us fit and strong (f).
Year 7:	Sport and exercise keeps you fit and healthy (m).

Exercise is good to get the heart pumping and if you have eaten any fattening food you might get rid of it (f).

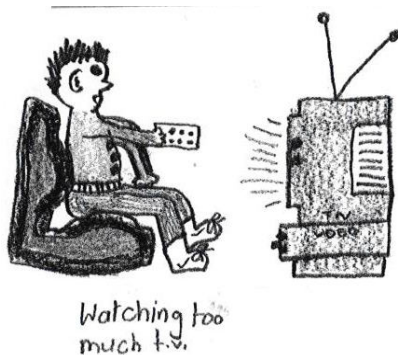
Year 8: Watching too much TV, staying inside all day and not getting enough exercise (m)
Lifting weights or just working out at the gym (f).

Major category B2: Balancing recreation and leisure time: As was suggested in major category B1, more children appeared to recognise their participation in sport and exercise rather than how they might use their leisure time in the engagement of activities of a more recreational nature (B2). Children in Year 5 introduced factors such as watching too much television and playing for too long on the computer (Figure 4.24).

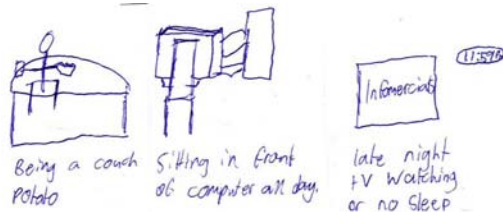
On the whole, more boys than girls mentioned the issues of too much television and computer time. One Year 6 girl mentioned that not having any fun could be detrimental to their health. This was placed within this major category because the picture had involved playing with friends. However, it must be noted that it might equally have fitted under the mental health group. Reading was another activity mentioned by some children, but this was also placed within the second major category of mental health (D2).

Figure 4.24. Balancing recreation and leisure time.

Year 6 (m)



Year 8 (m)



Children may have had some difficulty in recognising that time spent pursuing activity of a more recreational nature might have been beneficial to their health, and this may have been associated with their understanding of the concept of being or not being healthy.

Major category B3: Avoiding risky situations: As noted earlier, this was one of the least-mentioned categories in either of Tasks 1 and 2. It was to be expected that engaging in risky situations might not be mentioned in response to Task 1, but it was surprising that more children did not relate behaviours such as the necessity of wearing bicycle helmets or life jackets to Task 2. One boy in Year 4 suggested that he should not play in the rain, but it was not until Years 6 and 7 that five boys mentioned risky activities such as climbing on the roof, riding on a roller-coaster, waiting at road traffic signals and not jumping out, climbing trees, and not playing on slippery rocks. As mentioned earlier, there was some ambiguity attached to this major category, and other items such as drugs, smoking, drinking, not eating enough or watching too much television may have been coded into other categories. However, this major category was specific to physical activity, and on this basis, children did not appear to equate physical risk with health.

Super-ordinate Group A: Body care and personal health

Major category A dealt with the personal aspects of health. Personal and environmental hygiene (A1) embodied children's understanding of basic hygiene habits as well environmental factors such as living standards and the practice of caring for the environment. The second major category (A2) included the preventative health measures that children have recognised as contributing to the maintenance or non-maintenance of their health.

Major category A1: Affecting personal and environmental hygiene: This was the most mentioned of the main categories in this super-ordinate group, although only ranking the third most mentioned factor recognised by the children in Task 1 and

second highest in Task 2. Most pictures referred to showering, cleaning teeth and washing hands, particularly after playing with pets and going to the toilet. However, some other factors were mentioned, as illustrated in Table 4.10.

Table 4.10 illustrates that hygienic practices ranged from the very basic in Year 3 through to a more perceptive understanding by older children. On the whole, children in Years 3 and 4 referred to basic hygienic practices about which they are constantly being reminded. Oral hygiene was the most significant area of their knowledge. Where in major category C1 children had referred to the sugar in confectionary being the cause of tooth decay, in this instance, they referred to the need for the regular brushing of the teeth. Children in Year 3 had obviously been given a very clear message about dental health, but beyond that, their knowledge appeared limited. From Year 5 children were more aware of bodily hygiene which went beyond washing and showering, to the need for a regular change of clothes and attendance to personal grooming, performing necessary body functions and also the need to use items such as deodorants. They were also becoming aware of the need to care for the physical environment and the effect that some living conditions might have on their personal health.

Table 4.10 Examples of the progression of knowledge about personal and environmental hygiene.

Year 3:	Washing hair, ears and face (m).	(Task 1)
	Losing hair and getting old (f).	(Task 2)
	Biting the inside of your mouth (m).	
Year 4:	Wearing the right seasonal clothing (f).	(Task 1)
	Washing and wearing clean clothes (m).	
	Not cutting nails, not washing properly (f).	(Task2)
Year 5:	Going to the toilet regularly (m).	(Task 1)
	Wearing fresh clothes daily (f).	
	Being hot and sweaty (m).	(Task 2)
	Not wearing the right clothes (f).	
	Putting rubbish into the bin (m).	
Year 6:	Washing yourself regularly with soap and hot water (m).	(Task 1)
	Wash your hands after patting the cat (f).	
	Bare feet in the middle of winter (f).	(Task 2)

Year 7:	Using deodorant (f). Washing, showering, clean hair (f). Clean clothes, particularly underwear (m). Sucking pens and pencils (f).	(Task 1) (Task 2)
Year 8:	A clean environment keeps me healthy (m). Not showering or bathing keeps me not so healthy (f). Living in overcrowded housing conditions (m).	(Task 1) (Task 2)

Younger children equated age with personal health. It is not the intention to surmise what this child had meant when she added her caption “*This man is old so he brushes his teeth*” (Figure 4.25), nor the child who wrote “*losing hair and getting old*”. It may simply have been an astute observation of grandparents and what was happening to them physically.

Major category A2: Taking preventative health measures: Although this major category ranks considerably lower than its predecessor (A1), it was mentioned by a few children across all age groups. In Task 1, Years 5 and 8 children had considered it particularly important (figure 4.26), drawing attention to the fact that visiting the doctor and the taking of medicine might keep them healthy. Also mentioned by them was the need for getting out into the fresh air.

Figure 4.25 Example of age and personal health

Year 4 (f)



In Task 2 it was Year 4 and Year 8 children who indicated that missing doctors' appointments and not taking medication might be detrimental to their health. Also in Year 4, children were showing their concern and knowledge about the need for sun safety and some of them had drawn themselves taking various protective measures, such as the wearing of a sunhat. They had also introduced other factors such as not taking other people's medicine. A few Year 5 and 6 children mentioned vital issues such as not sharing food or sharing drink bottles and seemed acutely aware of the means by which germs were spread. This may have been attributed to the media focus on the high incidence of meningitis in New Zealand at the time they were doing this task. Children in Year 7 and Year 8 had drawn attention to the need for regular check-ups with the doctor and the dentist and also the avoidance of contact with those who were sick

Although the factors which a few children had highlighted were important issues, children generally did not recognise that taking preventative health actions might be advantageous to their personal well-being. It might have been expected that more children would have mentioned sun safety, especially since media coverage and public campaigns had been intensified to encourage the population to take preventative action, such as the "slip, slap, slop" campaign with the message to cover up in the sun. But this was not the case with the children in this study.

Figure 4.26 Preventative health measures

Year 8 (f)



-122-



What makes and keeps me healthy?

What makes me not so healthy?

What the results were indicating was that there was a progression in the knowledge some children had about certain issues. As these children matured, their knowledge was becoming more sophisticated. For example, some children in Year 4 were aware that they should not share drink bottles with others, but in Year 8 some were talking about the possibility of catching different viruses if they shared bottles. Some Year 8 children were also naming viruses, such as HIV and Aids, as well as hepatitis and meningococcal meningitis. This sophistication in knowledge was more evident in some, rather than all categories, and by some, rather than all children.

Super-ordinate Group D: Mental and social health

This super-ordinate group proved to be broad in interpretation and was the least mentioned factor in the children's drawings. Drawings included all manner of social relationships (D1) which took into account the relevance of family, friends and pets. It also dealt with the ways in which children felt pressured into undertaking certain behaviours. Emotional health, such as love and feelings, neglect, abuse and anger were represented. Some children mentioned fighting and other forms of violence. Ageism was another factor mentioned by some children in relation to mental health. The other main category (D2) was made up of factors which contributed to the intellectual stimulation of the individual, such as having a job, going to school, and learning about health.

Major category D1: Relationships: Although relationships were mentioned by some of the older children, it was not a focal aspect in either of the tasks. Year 3 children were recorded as mentioning relationships the most in Task 1. Out of 23 children, 13 drew pictures of themselves with smiles on their faces. Although ambiguous, this

was taken to mean that if children were happy then they were healthy. An alternative explanation might be when you are healthy you are happy. In this case the picture would be the outcome of engaging in healthy practices. It was surprising that more of the older children did not acknowledge the importance of social relationships, particularly at a time when peers and those of the opposite sex were beginning to have a greater significance in their personal lives. Table 4.11 illustrates some of the written statements made by children about social and relationship factors. Figure 4.27 illustrates children's views about relationships.

Table 4.11 Examples of the progression of knowledge about mental and social health: relationships

Year 3:	No mention other than pictures perhaps indicating happiness.	
Year 4:	me and mum doing the dishes (f) No mention by boys.	(Task 1)
Year 5:	To be happy and healthy (f). Friends (f). Mum, family and love(f). Tantrums, kicking and punching (m). Not making any friends (f).	(Task 1) (Task 2)
Year 6:	Family, Mr X and all the other teachers (m). Even being happy is healthy (f). Fighting (m).	(Task 1) (Task 2)
Year 7:	People who care for me (m). Being sad (m & f).	(Task 1) (Task 2)
Year 8:	Love keeps me healthy (f). A happy home environment keeps me healthy (f). Having a happy life – having a good time (f & m). Neglect makes me not so healthy (f). Anger makes me not so healthy (f).	(Task 1) (Task 2)

Major category D2: Involving intellectual stimulation: This major category received scant mention. Again, there may have been some ambiguity in interpretation. Reading and singing were viewed as intellectual activities, but were also recognised as being something that one did for relaxation (B2).

Figure 4.27 . Examples of children’s illustrations about relationships

Year 5 (f)



What makes and keeps me healthy?

Year 8 (f)

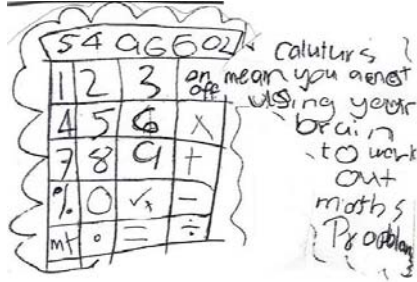


What makes me not so healthy?

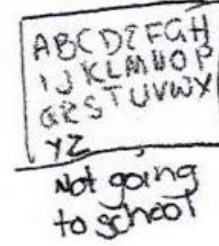
A few children in the older age group drew pictures of themselves reading. Placed into this category were written statements by some children, such as ‘jobs’ or ‘school’. One girl in Year 7 drew a calculator to illustrate the need to exercise the brain and another boy in the same year drew attention to the need to learn (figure 4.28). On the whole, however, children did not seem to associate factors which fell into the mental health area as contributing to health.

Figure 4. 28 Example of children’s views of intellectual stimulation

Year 7(f)



Year 7 (f)



What makes and keeps me healthy?

What makes me not so healthy?

4.6 Discussion

The d-w tasks used were the same as those in a study by Williams et al. (1989). Once the children’s pictures had been coded and analysis carried out, some key issues became clear. It has already been stated that this exercise was a “way-in”. The d-w tasks gave an almost immediate indication as to the extent of children’s existing knowledge. D-w has the potential, a number of research writers suggest, of providing valuable insight into children’s health perceptions and knowledge (Macgregor et al. 1998; Pridmore & Bendalov, 1995; Pridmore & Lansdown, 1997; Wetton & Moon, 1988; and others). Since there was no preliminary brainstorming of the concept of health and being healthy, the responses may not have been as wide as they might have been. In any subsequent study, preliminary brainstorming with children could be carried out to ensure that the younger children particularly understood the concept of health and being healthy. Results in this study, however, may be compared with the above-mentioned studies.

Several issues were identified as a result of the d-w tasks which have indicated both positive and negative aspects of the d-w technique, and these will form the basis of the following discussion.

Negatives

- Was the draw-and-write response entirely the children's own work?
- What had triggered the children's response?
- Did the children understand the language and the concept of health?
- What did children really mean?

Positives

- Draw-and-write as a critical means of informing curriculum.
- The identification of spiral development in children's knowledge.

Was the draw-and-write response entirely the children's own work?

Although the children's illustrations were rich and yielded insight into their existing knowledge, it has to be recognised that the drawings were an immediate response to the task. The introduction to the tasks did not provide the luxury of "thinking" time for the children, although one teacher did ask children to consider what they did to keep healthy and what made them not so healthy before they began their drawings. While not suggesting that the children copied from one another, it was apparent that some children were influenced by what their neighbours were drawing. Some children, noticing the behaviour of their neighbours, put their arms around their own papers to avoid others seeing what they were drawing. Had the children been given more time for reflection, and perhaps a class brainstorming session to get them started, the wealth of information might have been wider and more individual, particularly with the younger children. Backett-Milburn and McKie (1999) also pointed out in their critique of d-w that the originators recognised these anomalies in the technique. However, it must be stressed that as a "way-in" to finding out about children's existing knowledge, the d-w technique had advantages. In particular, it has the potential for extended use by the teacher in the classroom and in informing curriculum, based on the knowledge and sometimes misunderstandings represented in children's drawings.

What had triggered the children's response?

In most cases, children drew pictures about daily health messages they had received from the home or the school. This gave an excellent picture of children's "real" knowledge. When very young children drew pictures of drugs and alcohol, however, it became clear through their use of some captions that these may have come direct from television and radio advertising campaigns. A drink-drive advertisement at the time legitimized the use of a swear word and one has to wonder if it was that which was of more significance for the children than the message itself! Weetbix and Nutra-grain were the only two breakfast cereals mentioned and these, too, had huge television promotional time prior to the data collection, as well as sponsoring children's sporting events. Carlisle (2002) draws attention to the amount of advertising, the type of advertising, and the products and settings used to pressure children into using certain products through high-profile advertising campaigns at peak children's television viewing time. The pictures drawn by children in this study confirmed that certain products and behaviours were extremely high profile on television. Some children were aware of the product but less than knowledgeable about health outcomes for their own well-being.

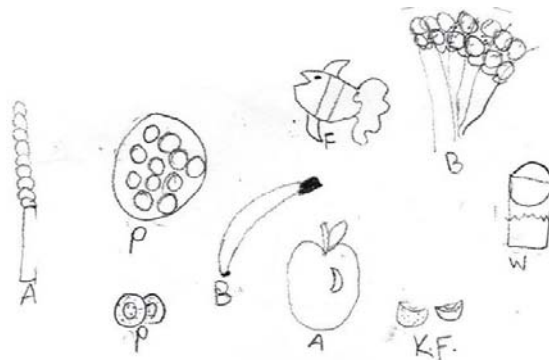
Did children understand the language and the concept of health?

The words "being healthy" and "not so healthy" were difficult concepts for young children to grasp. Pridmore and Lansdown (1997) and Wetton and McWhirter (1998) suggest that care should be given to the use of words in the construction of questions. The use of "well" and "unwell" or, in the New Zealand idiom, "feeling good" or "not so good", may have been words that would have been easier for younger children to understand. Already mentioned is the value of a whole class brainstorm. By employing the brainstorm ahead of the d-w tasks children might have been enabled to recognise and make word associations with a general concept of health. This brainstorm could have remained on the whiteboard for the duration of the task to prompt children who required help. Brainstorming might also have effected a clarification of the health concept for the children and enabled them to make the link between health and their daily behaviours. On the other hand,

children's responses may have been influenced by the answers of others, making it difficult to tell whether the ideas were their own.

Some of the younger children with poor literacy skills were unable to cope with the writing aspect of the task. They could, however, ask the teacher to write for them. Some children took advantage of this, (two children in Year 3 and one in Year 4) whispering to the teacher what it was they wanted to be written. This was a suggested approach by Wetton in Williams, Moon and Wetton (1989) in the original instructions for d-w. Although some Year 3 children did write in sentences, most were brief, with the majority of children simply adding labels to their drawings. This may have explained what the drawn object was, but did little to clarify what the child thought their behaviour might be in relation to the object. Several children merely wrote initials beside each item of food (Figure 4.29). The three examples in Figures 4.29, 4.30 and 4.31 illustrate the developing language skills of children.

Figure 4.29 An Example of Year 3 children's use of language



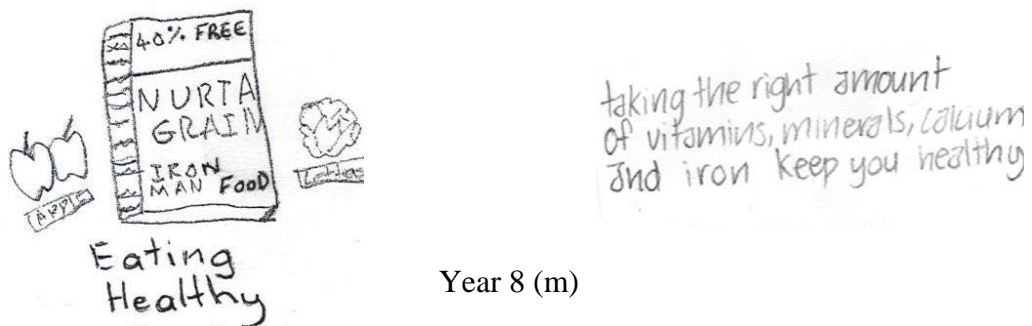
Year 3 (f)

Figure 4.30 An example of Year 6 children's use of language

Too many sweets, medicines that are not needed, drugs, chips & too many sweet afternoon snacks.

Year 6 (m)

Figure 4.31 An example of Year 8 children's use of language



What did children really mean?

There was also the problem of ambiguity in some of the children's drawings. This had the potential for the loss of valuable data where children may have had poor literacy skills, or wrote nothing at all. It is vital that children be allowed to explain their own drawings verbally to either the class teacher or researcher so that the meaning is not lost or misinterpreted. Although the facility was there for children to ask the teacher for this help, only a few of them sought help. The value of the task and the meanings implied by the children were far too valuable to be discarded, but total reliance on the researchers interpretation may have led to misrepresentation of the true meaning implied in the drawing. Backett-Milburn and McKie (1999) and Gabhainn and Kelleher (2002) acknowledged the potential for misrepresentation by the researcher of data collected using a d-w approach. In this study, the children who were involved in the interview phase did interpret what they had drawn and why, and this led to a real illumination of their knowledge. For the remaining drawings, and those which were ambiguous in meaning, there was no attempt to interpret them

beyond the written clues provided by the children. This resulted in a few drawings having to be discarded which may have skewed the results somewhat.

Draw-and-write as a critical means of informing curriculum

As a means of informing curriculum, d-w has the potential to provide a starting point for teachers. As Wetton and McWhirter (1998) comment, it can provide an instant means of assessing where children are in terms of knowledge and thinking about a concept. It can present a realistic view of their knowledge as well as facilitating a “way-in” to teaching and learning. From their basic perception about a given issue the teacher can build with, and extend the children beyond this starting point. It is also possible for the teacher to make critical decisions about what is possible in terms of the direction of their teaching. The teacher is able to assess what is or is not, appropriate at the level of children’s development. It has been strongly argued in the literature that if curriculum which is appropriate and relevant to children is to be developed, the perceptions of the major stakeholders, namely the children, need to be considered (MacGregor et al. 1998; Pridmore & Bendalow, 1995; Wetton & Moon, 1988; Williams et al. 1989).

It was found in this study that as a means of collecting data which gave an indication of children’s existing knowledge, d-w tasks provided a useful starting point for informing curriculum. Arguably, teachers repeat the same health messages year after year based upon external curriculum influences. In New Zealand, health curriculum has been influenced by “panic” issues such as child safety, teenage pregnancy and drugs and alcohol. While these issues are important, there is a tendency to teach and present issues to children based on adult perceptions of their importance. There is a possibility of taking any one issue, leading children into a d-w task with the use of appropriate questions about the issue, and then using the information presented by the children as an entry point to teaching. This could ensure that children’s focus is maintained by teaching at an appropriate level of understanding and interest, addressing children’s questions, and putting learning within an everyday and familiar context.

The identification of spiral development in children's knowledge

One of the key findings from the accumulated data was the spiral progression of children's knowledge between Year 3 and Year 8. It can be described as follows:

- Year 3 and 4: I have some knowledge of the basic health issues
- Year 5 and 6: I have more knowledge and am beginning to ask questions. I want to know more.
- Year 7 and 8: I can now explain and see a reason for some of the health messages I have been receiving, and am beginning to make sense of those messages in terms of caring for myself and those around me.

Children in Year 3 started with a narrow knowledge base. By Year 5 children had more concrete knowledge and by Year 8 and they were aware of and beginning to apply more critical thought (Figure 4.32). As Wetton found in her 1972 and 1983 studies (Wetton & McWhirter, 1998) the d-w approach has the potential for revealing a spiral development of children's health perceptions and knowledge. As has been found in this study, children started with a fairly narrow perception of what made them healthy or not so healthy. In the early years they began with simple pictures which illustrated their knowledge of eating and exercise. With age and maturity, some of the children's illustrations included more social, emotional, and mental health factors.

Younger children were very focused on the self in their drawings, but, by the time children had reached Years 5 and 6 there was a move away from the egotistic and self to an increasing concern for others.

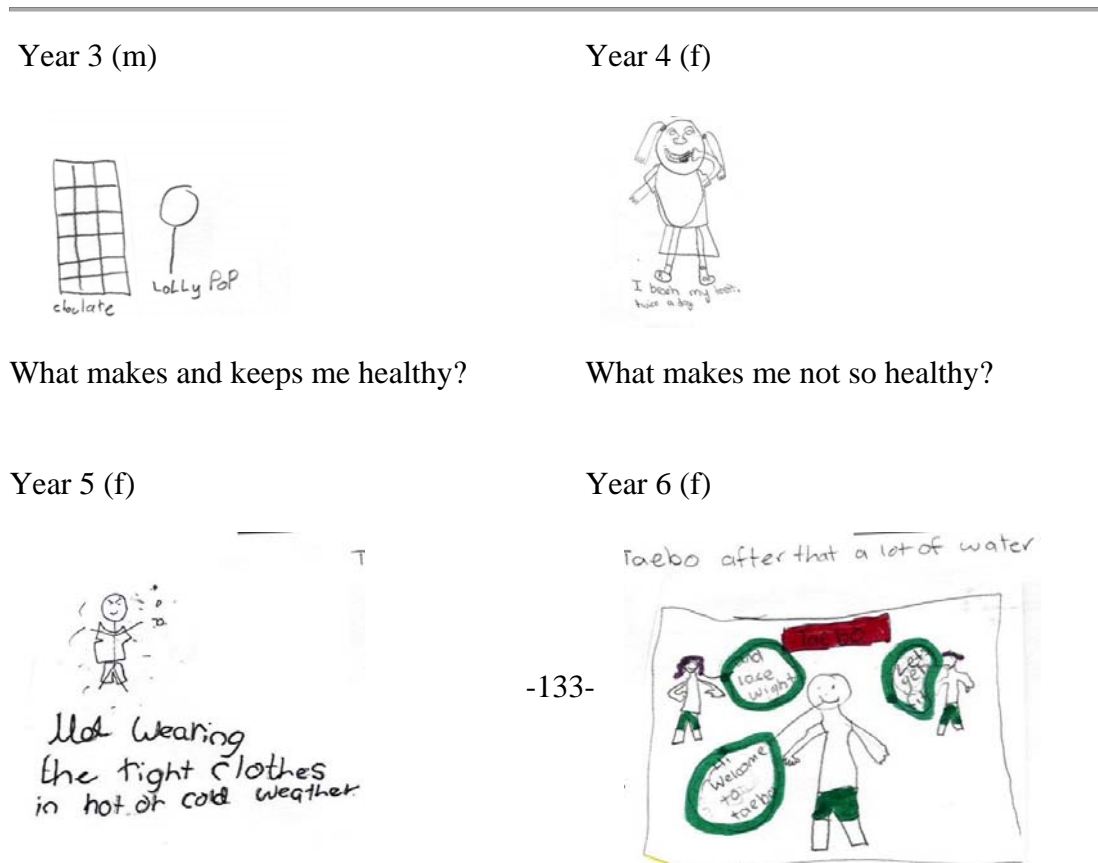
4.7 Conclusion

The evidence from d-w is that teachers could well employ the d-w task in the classroom. Programmes based on children's needs could emerge from the wealth of gathered information. Although the New Zealand health curriculum is structured into eight levels-of-learning which correspond to age-groups, this age-grouping is often

disregarded when “topic” teaching is practiced. The implications inherent in this study, even at this early stage, are that adequate monitoring is vital, so that recapitulation is a means of assessing children’s current knowledge, and then moving forward. The analogy of a jigsaw, where children and teachers would steadily be piecing together the jigsaw puzzle, rather than being stuck with a jumble within the frame, might aptly be used here.

This chapter has described the results of the two d-w tasks undertaken by the children as a way in to this study. The two tasks were a means of having all children participate in the research. It would have been impossible, due to a time constraints, to involve all children in the next phase of the research which was to give children a *voice*. Rather than rely on data from the d-w tasks, these findings are followed up by employing other qualitative research methods, namely, informal and unstructured conversational interviews. The following three chapters provide the results of interviews with children and adults. In particular, children were asked to explain their drawings and encouraged to talk further about their concerns about health and health issues. These concerns and issues are then compared with those of adults closely associated with the children, namely their parents and teachers.

Figure 4.32 Examples of the development of children’s critical thinking

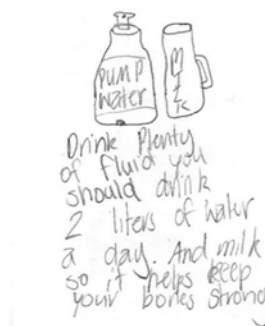
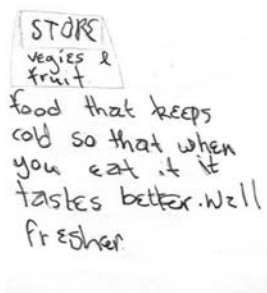


What makes me not so healthy?

What makes and keeps me healthy?

Year 7 (f)

Year 8 (f)



What makes and keeps me healthy?

What makes me not so healthy?

CHAPTER FIVE

Interviews: Theme One

What children know, think and are concerned about:

Results and discussion

5.0 Introduction

The two draw-and-write (d-w) tasks and their analyses provided a stepping-stone into the critical phase of the study in which children, their parents and teachers were invited to talk about health and health education. In these conversational interviews children were able to elaborate about what they had drawn in the two d-w tasks, to raise any issues of concern about their learning, and suggest what they most wanted to learn about. The parents and teachers discussed what they most wanted their children to learn about in health education.

To gain the views of children and adults' about appropriate learning in health education each group was engaged in conversational interviews as described in the methodology chapter. During these conversations the children did not confine their conversations to the data represented in the initial d-w tasks, but provided additional and sometimes, unexpected data.

These subsequent conversations were the key to this study. As has previously been suggested, it could be construed that the taught health curriculum is based largely on what adults think children need to learn rather than on what children, themselves, want to learn. Thus, in the conversation sessions all groups, children, their parents and their teachers' were given the opportunity to express their views about health, and to discuss any issues and concerns they had. These groups identified key areas of learning for the health curriculum. At the conclusion of the adult sessions, both teachers and parents were able to view the children's selected areas of learning for health and determine whether, in the light of what children had said, they might change the health areas they had selected. For the teachers, would what the children had said influence their approach to teaching in the classroom?

5.1 Reporting format

Because of the volume of qualitative data and its relevance to the study, it was felt that reporting would best be spread over three separate chapters, each of which would present the findings, gender and age comparisons and discussion.

To make the communication of the findings more manageable they are reported under key themes, described in Figure 5.1. The theme names arose out of the key questions which children were asked, and also out of the research questions for this study. The results of each of these themes will be explained in this, and the following two chapters.

A discussion will follow each key theme during which links will be made to the *Health and Physical Education in New Zealand Curriculum* statement (MOE, 1999), current literature, research and the findings of others. In this particular chapter, discussion will follow each of the three sub-themes listed in Figure 5.1. Where children's comments are reported they are typical comments from the group.

Figure 5.1 Reporting format of the key themes

Chapter	Theme	Participants
Chapter 5: Theme One.	Children’s knowledge and understanding about health Sources of children’s knowledge Issues and concerns about health	children only
Chapter 6: Theme Two	The importance of health education at school	children and adults
Chapter 7: Theme Three	Important areas to learn about in health education	children and adults

The aim of the first three questions in Theme One (Figure 5.1) was to find out what existing knowledge the children had about what makes and keeps them healthy, and what makes them not so healthy; what their source of information was and what, if any, concerns and issues they might have about health and health education. This was a positive starting point to the conversations with the small groups of children, as it allowed them to interact with familiar information they had already illustrated in their drawings. As the conversations progressed, children began to justify what they had drawn and why. The next three sections outline the results that describe children’s explanations, justifications for their thinking, and the issues and concerns that children had about health matters.

5.2 Children’s knowledge and understanding about health: results overview and discussion

The results for this theme are illustrated in Tables 5.1 and 5.2. The two Tables record the results for the small conversational interview groups. The tables show the numbers of children (by gender) in each year-group, and the major categories they most talked about. Where several mentions of a major category were made by one child, it was only recorded once. Following the result tables and analyses will be

observations made by the researcher, describing the qualitative data taken from the conversations. This sub-theme (a) will conclude with discussion.

For the three most-cited categories an χ^2 test was administered. Chi square tested whether there were any significant differences between the scores of the younger children (Years 3, 4, 5) and the older children (Years 6, 7, 8). The results in Table 5.1 indicate that the topics most mentioned in response to what makes and keeps me healthy were personal hygiene (A1), having enough exercise (B1) and eating the right foods (C1). All children made at least one mention of exercise or eating, whereas, most children mentioned hygiene, with the exception of Year 3 boys and Year 6 girls. Year 3 boys mentioned only two areas of health (exercise and eating) during the initial conversations, while four of the Year 3 girls mentioned the need for oral hygiene and taking a shower (A1). For Year 4, the same three major categories were those most often mentioned. Out of 6 boys, three spoke about the need to keep themselves clean. For example one boy said *“having a bath and lots of sleep makes you healthy.”* One girl in Year 4 introduced the major category A2 by making the statement *“I need to have regular check-ups.”*

By Year 5 some girls (3) and one boy had also introduced ideas which fell under the preventative health category (A2), as well as three children, who mentioned social relationships. For example one Year 5 girl said *“you need your mum and dad to love you”* and a boy said *“when other people look after you it makes you healthy.”* The interview with Year 6 children included boys and girls together, and it was in this group where four of the boys first introduced alcohol and drugs into the area of things that make and keep them healthy. For example one Year 6 boy said that *“you need to know that some drugs, like medicine can keep you healthy”* while another explained that *“you don’t take drugs unless you have to.”*

Table 5.1 Children’s knowledge and understanding: What makes and keeps me healthy?

Frequencies by Year and Gender													
Numbers of children	YEAR 3		YEAR 4		YEAR 5		YEAR 6		YEAR 7		YEAR 8		Totals
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
	(5)	(5)	(6)	(6)	(5)	(5)	(5)	(5)	(5)	(5)	(6)	(5)	

Major category													
A1	-	4	3	6	3	3	2	-	3	3	3	5	35
A2	-	-	-	1	1	3	-	-	-	-	2	1	8
B1	5	5	6	5	5	3	1	2	3	4	6	4	49
B2	-	-	-	-	-	-	-	-	-	-	-	-	0
B3	-	-	-	-	-	-	-	-	-	-	-	-	0
C1	5	5	6	6	5	5	5	5	2	5	6	5	60
C2	-	-	-	-	-	-	4	2	-	-	-	-	0
D1	-	-	-	-	1	2	-	-	-	-	-	-	3
D2	-	-	-	-	-	-	-	-	2	1	2	1	6
Totals	10	14	15	18	15	16	12	9	10	13	19	16	

Key: A1: Affecting personal and environmental health
A2: Taking preventative health measures
B1: Engaging in exercise and sport
B2: Balancing recreation and leisure time
B3: Avoiding risky situations
C1: Concerning eating habits
C2: Concerning drugs, alcohol and chemicals
D1: Affecting relationships
D2: Involving intellectual stimulation

In Year 7 the major areas of conversation centred on the three major categories of A1, B1, and C1, although two boys and one girl also introduced the idea that school was important for intellectual stimulation (D2). Year 8 children focused on the same basic areas as Year 7, although three children mentioned the need to seek medical attention or to take preventative action for good health (A2). One boy said *“you should always wear sun-screen to protect the skin”* and a girl explained that *“if you are sick, medicine will help to bring you back to feeling well.”*

The results (Table 5.1) show that there was general consistency across all age-groups when considering what made them healthy. There were isolated mentions by a few children of other factors such as the one girl in Year 4 who spoke about preventative action, the three children in Year 5 who spoke about social relationships, the Year 6 children who introduced the idea of some drugs having a positive effect on their health, and three children from both Years 7 and 8 who also recognised the need for intellectual stimulation to keep the mind alert.

Table 5.2 gives the frequency with which the children talked about behaviours which made them not so healthy. As with Table 5.1, the results show that not eating the right foods (C1) (children’s words) scored the highest, with only one Year 5 girl

not mentioning food at all. Neglecting their personal hygiene (A1) also recorded a high mention, although not quite as high as shown in Table 5.1. Children in Year 6 did not talk about hygiene at all. Whereas no Year 3 boys had equated hygiene with what makes them healthy, three of them did mention that a lack of attention to personal hygiene could contribute to making them not so healthy. One Year 3 boy explained “*you should look after your body like brushing your teeth.*” All of the Year 4 girls spoke about the importance of not neglecting their personal hygiene. One of them suggested that “*I might play sport and then don’t wash properly*” and the one Year 4 boy explained that “*if you don’t wear clean clothes, you will not be healthy.*”

The third most often spoken about behaviour in relation to doing things that might make them not so healthy concerned drugs, alcohol and chemicals (C2). Out of 63 children nearly half of them (44.4%) mentioned drinking and smoking. Only the girls in Year 4 made no mention of C2 at all. Figure 5.2 illustrates what the children said.

While 77.8% of all children had said that they needed to exercise to stay healthy, fewer talked about the lack of exercise (19%) as contributing to making them not so healthy.

More of the major categories were spoken about in relation to behaviours which might make children not so healthy rather than what makes them healthy, although generally, the results were not that markedly different.

Table 5.2 Children’s knowledge and understanding: What makes me not so healthy?

Numbers of children	Frequencies by Year and Gender												Totals
	YEAR 3		YEAR 4		YEAR 5		YEAR 6		YEAR 7		YEAR 8		
	Boys (5)	Girls (5)	Boys (6)	Girls (6)	Boys (5)	Girls (5)	Boys (5)	Girls (5)	Boys (5)	Girls (5)	Boys (6)	Girls (5)	
Major category													
A1	3	1	3	6	2	4	-	-	1	3	4	3	30
A2	-	-	1	2	-	3	-	-	-	-	4	2	12
B1	-	1	-	-	-	2	2	2	1	-	2	2	12
B2	-	-	-	-	1	-	-	-	1	2	4	-	8
B3	-	-	-	-	1	2	-	-	-	-	1	-	4

C1	5	5	6	6	5	4	5	5	5	5	6	5	62
C2	2	1	4	-	1	1	4	2	3	1	4	5	28
D1	-	-	-	-	-	2	-	-	1	5	-	-	8
D2	-	-	-	-	-	-	-	-	-	-	-	-	0
Totals	10	8	14	14	10	18	11	9	12	16	25	17	

Key: A1: Affecting personal and environmental health
A2: Not taking preventative health measures
B1: Not engaging in exercise and sport
B2: Not balancing recreation and leisure time
B3: Not avoiding risky situations
C1: Concerning eating habits
C2: About drugs, alcohol and chemicals
D1: Affecting relationships
D2: Involving intellectual stimulation

Four children, three in Year 5 and one in Year 8 had recognised that their engagement in risky activities (B3) might be detrimental to their health. A Year 5 boy, who suggested that *“if you don’t wear shoes, you could stand on glass”* and a Year 5 girl made the remark that *“you shouldn’t hurt yourself.”*

Major category B2 was also mentioned for the first time. The results in Table 5.1 had indicated that no children had spoken about the need for balance in recreation and leisure activities for staying healthy, but Table 5.2 shows that eight children had equated the lack of balance in their recreation and leisure time activity to making them not so healthy. In particular, four out of six boys in Year 8 drew attention to this factor. One boy suggested that *“it is bad for your health to sit and watch too much television.”*

Figure 5.2 Examples of children’s conversations illustrating major category C2

Year	Gender	Conversations
Y3	girl	You shouldn’t drink and drive.
	boy	Lion Red and smokes are bad for you.

Y4	girl boy	No mention Smoking isn't healthy for you.
Y5	girl boy	Smoking is bad for you. You shouldn't smoke because it's not good for you.
Y6	girl boy	You don't take drugs unless you have to. Smokes, beer and spirits make you not so healthy.
Y7	girl boy	Smoking and drinking can be dangerous for your health. smoking stuffs up your lungs , and drinking can poison your body and kill you.
Y8	girl boy	Like smokes, because the ads on T.V tell you what it does to your lungs. Smoking does damage to the lungs and body.

Generally the results in both Tables 5.1 and 5.2 indicate that there was no real difference in the areas talked about by younger (Years 3-5) and older children (Year 6-8). In Table 5.1 the three dominant factors with regard to making them healthy were spoken about by most children, although healthy eating (C1) recorded a higher mention than either of A1 and B1. For A1, the computed Chi square was less than the tabled value of 3.841 at the 0.05 level, and therefore the difference of frequency due to age was not significant. For B1 the Chi square was significant at the 0.05 level ($\chi^2 = 6.92$, df 1, $p = < 0.05$). C1 was not significant at the 0.05 level.

In Table 5.2, the results indicate that nearly all children related poor eating habits (C1) to making them not so healthy, and nearly half of the total number of children recognised that poor hygiene (A1) and engaging with smoking and drinking behaviour (C2) contributed to poor health. Chi square tests were applied to A1, C1 and C2 as the three most frequently mentioned areas. A1 and C1 were not significant at the 0.05 level, but for C2, the result was significant ($\chi^2 = 7.01$, df 1, $p = < 0.05$). This result indicates that older children were more likely to talk about drugs.

In both Tables, Year 8 children are shown as having a wider perspective on factors affecting their health. An important result is the small number of children across all year groups who spoke about major categories D1 and D2. Few seemed to equate relationships (D1) or intellectual stimulation (D2) with health.

5.2.1. Overview of results

The first question required all children to engage in a descriptive task, talking about their pictures and what the pictures meant. This proved to be quite illuminating and provided a basis for further conversations. Table 5.1 and Table 5.2 show results but do not give a real indication of the depth of knowledge that children had. The two Tables indicate the health areas that these children had represented in their pictures but during the conversations, children were able to justify, with explanations, why they had drawn the picture and what it meant for their health. In the previous chapter it was indicated that the pictures most often drawn in response to both Tasks 1 and 2 concerned healthy or not so healthy eating, having plenty of exercise and looking after their personal hygiene. So too here, the conversations initially centred around those three major topics. However, during the conversations, children were also able to explain their importance. For example, in relation to eating, a Year 3 girl explained *“if you eat some fruit and vegetables and you go to the mirror, you will see that your teeth don’t go as yellow as if you eat sweets.”* A Year 7 girl suggested that *“sometimes eating salt can lead to cancer,”* and other children brought in the value of food for providing protein, iron and calcium for bone strength, maintaining energy levels and heart health. This adds weight to the debate about whether d-w should be used as a stand alone method.

The results showed several key points. As mentioned earlier, factors for maintaining health for boys (n=32) and girls (n=31) across all age-groups were eating and food (C1) (b=29, g=31). Out of 63 children, 49 of them (b=26, g=23) had related exercise and sport to health (B1), and 35 children (b=14, g=21) mentioned hygiene (A1). Almost the same number of children had associated poor eating habits with making them not so healthy (b=32, g=30) followed by a lack of hygiene practices (b=13, g=17), and alcohol and smoking (b=18, g=10).

By Year 5 some children, mainly girls were introducing other factors such as going to the doctor and taking preventative health measures, and not sharing drink glasses to avoid the spreading of germs (A2). Also, a few isolated remarks were made by some Year 5 children about relationships (D1), such as the need for love, family

and friends. For example, one Year 5 boy said “*You need your mum and dad to love you.*” This kind of comment was isolated, rather than being an explanation of what these children had drawn in response to the two d-w tasks.

Some comments from four boys in Year 8, one boy and two girls in Year 7 and an isolated comment from a boy in Year 5, suggested that these few children knew about the need for balance in their lives regarding leisure type activities. A year 7 boy made the comment that “*holidays can relieve your stress.*” One boy in Year 8 and one boy and two girls in Year 5 introduced the topic of risky activity (B3) and the need to avoid playing in dangerous places, the wearing of life jackets or cycle helmets and guns and violence. Again, while few children had illustrated “risk” in the d-w tasks, the two boys were quite vocal about the need to take precautions in situations which could endanger their health. The Year 8 boy suggested activities of risk as “*being on a roller-coaster, on a boat, the road or other dangerous places.*”

Some key observations were noted while the children were in conversation. For many of the younger children in Years 3 and 4, the health knowledge was not necessarily their own. Some of the younger children latched on to the conversations of others, often adopting the knowledge as their own. This same age-group focussed largely on health habits, motivated by the common messages they often heard at home or at school, such as washing hands before eating, and eating plenty of fruit and vegetables (according to parent comments). Although young children were knowledgeable about healthy eating, hygiene and exercise, their knowledge was generally a repetition of the health messages they most often heard, and their focus seemed to involve the more tangible factors about which they received daily reminders. A key point here is that children demonstrated their learning which had been gained by listening to adults, peers and various forms of media.

During their conversations, it appeared that children were more likely to talk about the negative rather than the positive aspects of health. This may be attributed to the language used in the messages given to them. Many boys in particular, had picked up on the sensationalism depicted in some television and poster campaigns, where the inevitable outcome of non-adherence to the message would be death such as

“smoking stuffs up your lungs, and drinking can poison your body, and drinking and driving will kill you” (Year 8 boy).

As conversations developed it became evident that many children, particularly from Year 5 onwards, were quite knowledgeable about health issues. As the children in this study became more involved in their conversations, a spiral development of health knowledge became evident. Spiral learning can be described as progressive learning as children move upwards through their school years, but continue to interact with the same area of learning. At the lowest level children acquire basic knowledge. When the subject is revisited recapitulation is done to find out what the children know, before an introduction of further knowledge. This continues throughout the years of learning. This spiral development demonstrated that as children matured in age and life experience, most of them were developing a growing interest in, and wider understanding of many of the health concepts. This has implications for the teacher when considering health implementation plans for teaching and learning in the classroom.

5.2.2 Discussion

The use of grounded theory produced unbiased data which were artistic and narrative constructions of how children in this study viewed health and health issues. Discussion is based on the following five key points which emerged as the researcher interacted with and interpreted the qualitative data provided by the children.

- The knowledge spiral – increasing complexity
- Major focus of knowledge
- Negativity
- Consequences
- Emergence of an interest in topical issues
- Limitations of draw and write as a stand alone method

The knowledge spiral – increasing complexity

An attempt to find out children's knowledge and understanding about health might have appeared to be a recapitulation of the d-w findings. This was more apparent with the younger children in particular, where most Year 3 children had simply described what they had drawn. However, some conversations which developed from Year 5 onwards reflected a spiral of progressive maturity in their learning. Wetton and Moon (1988) in their research also referred to spirals of development of children's perceptions as children became older, and McWhirter, Wetton and Williams (1996) refer to the spiral curriculum in planning for health curriculum development. These present results appeared to indicate that Year 3, and most of Year 4 children, knew about health behaviours, particularly those about which they were constantly reminded; Year 5 and 6 children were becoming more aware of health behaviours and were beginning to ask for more information, and Year 7 and 8 children were beginning to recognise that actions had consequences and that a personal level of responsibility was required. Many children in the older age-groups were beginning to become interested in health issues which could affect them or the local community, such as meningitis and other communicable diseases. They had some information but were seeking more, and they wanted answers to their questions.

In terms of their knowledge, many children in Year 3 and 4 had a tendency to adopt the knowledge of others as their own. In Year 3 one girl was particularly vocal, and as she gave her perspective, the other girls adopted it. This same behaviour was patterned by the Year 3 boys. The children were demonstrating a positive learning technique in this instance. They were also reinforcing the argument that listening to others is helpful in planning curriculum and classroom activities.

Many of the Year 3 children also appeared, initially, to focus on just one aspect of health. This is consistent with the findings of Mayall (1993), who, in a study of children's, parents' and teachers' views on the health care of primary school children found that younger children seemed to focus on only one aspect of health whereas, the older groups of children introduced many more aspects. Similarly, in this study, the older children, seemed able to present various aspects of health knowledge, and were more likely to substantiate them.

Major focus of knowledge

The major focus of knowledge for all children about what made them healthy seemed to be about food and eating. This applied equally to what made them healthy or what made them not so healthy. Exercise, personal hygiene and drugs and alcohol were also focus areas of their knowledge. Other researchers (Gabhainn & Kelleher, 2002; McGregor et al. 1998; McWhirter et al. 1996; Pridmore & Bendelow, 1995; Pridmore & Lansdown; Pridmore, 1996; Wetton & Moon, 1988; 1997) found that children in their studies identified similar areas. These four areas of knowledge are now explained.

Eating habits and food

Quite a few of the younger children in this study, in particular the five boys and five girls in Year 3, exclusively described names of food. A conversation from one boy went, *“Healthy... um, water, fish, grapes, pipis, oranges and um, not so healthy... lollipops, ice creams, chocolate, milk-shake, candy floss.”* Both boys and girls appeared to be knowledgeable about the names of foods, particularly those they should or should not be eating. This proved to be more superficial than substantial knowledge, as they did not appear to know what the qualities of the foods were. Backett and Alexander (1991) in their study of children’s health beliefs and behaviour also found that when they drew pictures of fruit, they knew the names, but not the positive qualities of the fruit. In this study children had drawn pictures of fruit because they were constantly told that fruit was good for them, but they did not know why it made them healthy. More knowledge was divulged about food by some of the older children. For example, one Year 5 boy described healthy sandwiches as being made up of lettuce, tomato and meat *“with a little bit of salt, but not too much.”* When asked the reason for using only a little salt the boy replied, *“because it makes your heart slow down and the arteries go hard”*. When asked why fruit and vegetables were the major source of their answers about healthy food, one Year 8 girl replied *“because they contain proteins and iron, and protect the bones.”*

When talking about types of food, most children referred to them within categories. For example fruit and vegetables were described as “good food”; hot

chips, pizza, hamburgers, McDonald's, Kentucky Fried Chicken, milkshakes and fizzy drink were described as "fast foods or junk food"; chocolate, lollies, packet chips, sugar, fatty meat, biscuits and popcorn were named "fat foods" or "bad food." In their study of young people's conceptualisation of food and eating Watt and Sheihan (1997) found that children had identified the same categories. In this study, most children commonly referred to the categories rather than the food itself, such as one Year 5 boy who said *"You shouldn't eat too much junk food, it's bad for you."*

Exercise and sport

Most of the younger children (Year 3) related exercise to playing sport and games rather than other forms of exercise, whereas in Year 4 and upwards, some children identified factors such as going to the gym, weight-lifting and exercise programmes such as Tai-Chi and Tae-bo. A few of the older children also recognised the value of regular exercise or the possible consequences for a lack of exercise. However, many children talked about sport only as a fun activity, and made no reference to its potential health benefits. A Year 6 boy stated that *"We should have more P.E because it is fun."* This is consistent with the findings of Mulvihill, Rivers, and Aggleton (2000) in a study of children's views of physical activity, where many found it to be enjoyable and fun. Year 7 and 8 girls, more so than boys, viewed physical activity as a means of maintaining a positive body image and feeling good. Some of the younger children often saw the benefits of physical activity as being to enable them to lose weight. Mulvihill et al. (2000) found that teenage girls were motivated to exercise to lose weight, but in this study, several boys and girls as young as 9 years-of-age mentioned exercise to avoid getting fat. A Year 6 girl stated, *"That picture there is of a treadmill which represents that you should exercise so that you don't get all bloaty and fat."*

Personal and environmental hygiene

This was the third most often mentioned health factor across all year groups, and it was the area which most obviously revealed children's spiral progression of knowledge. When hygiene was mentioned by the younger children it was

predominantly about dental hygiene and in relation to the type of food eaten. For example nine out of ten Year 3 children talked about teeth going rotten when too many sweets were eaten. *“I put sugar for the not so healthy, because that’s bad for you, and it makes your teeth go all yellow and rots your teeth.”* Several of the older children, while brushing teeth was still a major factor, also recognised the importance of maintaining body cleanliness as both a safety and social issue.

By Year 4 a wider perspective of hygiene was recognised when the issue of germ containment was mentioned by two girls, and one boy recognised the importance of maintaining a clean environment. Others failed to equate this with health and had questions. For example in response to what makes us healthy:

Girl 1: Washing my hands, exercising, brushing my teeth, washing the dishes, drinking and eating...

Girl 2: How does washing the dishes help to make you healthy?

Girl 1: It keeps the plates clean and helps to keep away the germs off the plates.

There is a suggestion that this particular Year 4 girl is beginning to recognise that there are consequences here, such as the possible spread of germs to others whereas most of the other children were still largely concerned about self. Another Year 4 boy introduced factors which involved the environment and the relevance of hygiene and his relationship with others.

To keep you healthy you have to have heaps of sleep to keep you strong, and you have to put your rubbish in the bin, eat healthy foods and you have friends and play lots of sports. And the not so healthy, you don’t put your things in the bin, eating and drinking bad food and you don’t wear clean clothes.

By Year 8, three of the girls and four boys were conscious of the need to bathe and shower regularly so that they looked and felt good. One boy and two girls were also conscious of using a deodorant for their personal hygiene. Two of the boys also saw the relationship between housing and living conditions and hygiene safety.

Alcohol, smoking and other drugs (DAS)

A recent British newspaper article (*Daily Express*, March 16th, 2002) reported that by the age of 13 years, 21% of children had been offered glue and other solvents; cocaine 8%; crack 9%; heroin 7%; ecstasy 7% and cannabis 23% (Department of Health). In New Zealand this knowledge about DAS may well be attributed to the high profile of advertising on television in the past few years, and the fact that many children live in environments where adults engage in DAS behaviours. This concurs with an American study (Hahn, Hall, Rayens, Burt, et al. 2000) of kindergarten children's knowledge and perceptions about alcohol, tobacco and other drugs (ATODs). It was found that out of 126 five to six-year-old children, more than half of them were knowledgeable about ATODs.

In this study, at the younger level, three out of ten children mentioned drinking and smoking. By Year 8, nine out of eleven children spoke in depth about access to hard drugs and alcohol, and several had already acquired the smoking habit. What may be deduced from these findings is that some very young children have experience of, and knowledge about, drugs, alcohol and tobacco, whether it be from their peers, older siblings, parental habits or other sources, such as television and other media. Casswell, Gilmore, Silva, and Brasch (1988) found in a New Zealand study that children aged eight and nine years of age had very clear concepts about alcohol, and that television was a prime source of their information. Porcellato, Dugdill, Springett, and Sanderson (1999), in their study of primary children's perceptions of smoking in Liverpool (UK), found, that although many children aged between four and eight years-of-age had a negative disposition toward smoking, they had already developed the attitude that it was an adult behaviour. Many had experienced smoking if family members smoked, and it was likely they would also become smokers in the future. This begs the question about the appropriateness of current drug and alcohol programmes in schools, particularly the level at which they are introduced. This matter will be taken up again in themes three and four. Research by McWhirter et al. (2000) aimed to bring about "a change in the way drug education was delivered". Above all, it was recommended that a new approach to drug education was due which started with what children knew and what they had already

experienced within their own social context. Concluding their study, Porcellato et al. (1999) agreed that intervention strategies concerning smoking needed to change since attitudes and beliefs about smoking had already been established and experimentation under way with many very young children. Currently, prevention programmes in drug education in most New Zealand primary schools tend to be delivered to children as late as Years 7 and 8.

In this present study, a total of seven boys across Year 7 and 8 were talking about hard drugs, being in vehicles when drugs and alcohol were present, being at parties and night clubs, where pills were slipped into drinks, and of the pressures exerted by their peers and older people. A Year 7 boy stated:

My cousin had only just got his driving licence and he was going out to a party, and he invited me along, but I said no cause I was scared that I was going to get drunk and also, he was going to be driving the car after drinking.

Some of the Year 7 and Year 8 girls were very aware of teenage drugs which were being marketed, and had already been pressured into trying them by their peers. A Year 8 girl stated:

Like, you can walk into this shop and there's all these different types of smokes. It's like alcohol. They are getting these new things like Stingers and KGB, and they are like, the kids our age, just love them and think they are so nice, but really they are not good for us.

The findings in this present study have some similarity to those in a study by Porcellato, Dughill and Springett (2002). They found, as did this study, that the rationale given by children for not smoking varied within each year and gender group. Some differences were noted between the two studies though. While Porcellato et al. found that children generally focussed on the physical rather than the social effects of smoking, this study found that a few children were recognising the social consequences and some were beginning to debate the social issue. For example a Year 3 boy pointed out that it was “*alright for dads to smoke, but not mums. It is not good for mothers to smoke*” (Year 3 boy).

The finding in this study that many children from Years 3 to 8 were making some reference to DAS is a very serious issue. This certainly has implications for the curriculum and at what level the teacher and parents might begin to introduce drug awareness education.

Prevalence of negative health messages

It was found in this study that children were more likely to emphasise the negative health message rather than recognise the positives. Several children made comments like *“They are going to kill us”* (girl, Year 8), and *“Don’t eat junk food and don’t smoke, they are bad for you”* (girl, Year 7), or *“Smoking is bad for you”* (girl, Year 5), or *“If you sit on the couch all day you will be lazy, and you won’t be laughing and you won’t be happy”* (girl, Year 3), or *“Don’t watch too much TV cause its bad for your eyes and bad for your skin”* or *“Drinking and driving can kill you because it makes you all stupid. Smoking stuffs up your lungs. Drinking... because it can poison your body and kill you. Chips and all that, because they have lots of salt”* (Boy, Year 7).

This is not to say that some children did not make positive statements. For example, some children by Year 7 were definitely beginning to recognise the value of positive relationships. One boy, when asked about the value of social relationships responded *“Because you really need friends and family. Like, when you are playing sports, and you see them on the sidelines, you just try harder. Makes you feel good.”* Another boy said *“When I want to talk or say something, I always go round to my mums. She always listens to me.”*

These findings of negativity agree with those of Backett and Alexander (1991) who also discovered that the children in their study were more likely to be aware of the negative affects of certain health behaviours. In this present study children identified far more factors which were likely to make them not so healthy rather than to recognise the positive aspects of health. This could be attributed to the fact that children are far more likely to hear messages that contain the word ‘Don’t’ rather than receiving positive health messages, which not only have implications about the way in which teachers teach, but also about the language of communication in

general. Another aspect of negativity is that many children were picking up on the message that if they did not adhere to the rules, the consequence was death, which not only stresses negativity to the children, but also instils fear (Hillman, Adams & Whitelegg 1990).

We have created a world for our children in which safety is promoted through fear. The message of campaigns such as 'one false move and you're dead' is one of deference to the source of the danger.

Understanding the consequences

Many children, particularly at the younger level, while they gave an indication of their health knowledge, appeared to have little perspective about possible consequences. For example, a conversation with a Year 3 girl in relation to drink driving is illustrated here

Girl: *And I wrote, don't drink and drive*

Res: *Well done. Where did you get that idea from?*

Girl: *Well... on the advert it says, "If you drink and drive you're a bloody idiot". I wasn't going to write that because that's something you shouldn't write on work, so I just wrote, you shouldn't drink and drive.*

Many children cited the above words, and it was the language used which was more prominent than the message communicated. Like the above example, most children knew that they were not supposed to swear, but it seemed to be legitimate in this setting. Many children, across all age-groups, pointed out that they should not smoke, drink or take drugs, but only one boy throughout the study actually pointed out what it could do to the body. Williams et al. (1989) and other researchers since, have pointed out that drawing, writing, and talking to children can provide valuable insight into children's knowledge and perceptions about health. This study concurs with these comments, but also realised the limitations. If questions were not framed in the right way, children did not always reveal their greater depth of knowledge or perception.

By Year 5 and upwards, many more children were beginning to rationalise their health behaviours and recognise the possible consequences, both immediately and for the future. One Year 7 girl said:

For the healthy I put food and nutrition because it's important to eat the right foods, because if you don't, you might get heart trouble, or you might get fat. Exercise is good to get the heart pumping, and if you've eaten any fattening food you might get rid of it. And school... education is good because it exercises your brain and you learn new skills. It's important to have a good night's sleep because otherwise, you will get tired and your brain won't function properly. Fun... if you don't have fun you will be boring and dull. If you overcome your fears you will be a better person because you will be terrified that you'll be getting more, and if you don't overcome them... if you overcome one fear it will give you more confidence. Bath and showers... if you don't have a shower regularly you will smell, and the germs that you get each day will make you sick.

Another boy (Year 6) commented *"If no one told us about what's healthy and not, people might die and everything, because they might eat chocolate and get really fat and everything, and like the man who was really big, and he was so big and he died."* This statement raises other issues, such as the many misconceptions children have, and refers back to the negativity of many of the health messages they receive.

Emergence of an interest in topical issues

By Year 8 children were beginning to take an interest in controversial issues and were questioning some of the simple health messages they were receiving. They were beginning to weigh up some of the consequences of some behaviours which might affect their health, and were starting to take responsibility and make decisions about their actions. For example, one girl brought up a very real social issue saying *"You shouldn't share drink bottles and lip balm because you can catch hepatitis."*

Many children by Year 7 and 8 had concerns and questions for which they were seeking honest answers and explanation. Others were beginning to debate the merits between certain choices they might make about their health care. In Year 8 for example, the girl who raised the issue between alternative health remedies as opposed

to conventional medical care was beginning to question the appropriateness of messages they had grown up with. The boy in Year 7 who showed concern about the consequences for a girl who became pregnant while still at school was beginning to realise that certain actions might have consequences. Similarly, the Year 7 boy who raised the issue of suicide was looking beyond the act itself, and considering the repercussions for and feelings of the wider family group who might be affected.

Issues such as those which affected larger school communities were also of interest to some of the older children, such as the implications for those involved in large scale school massacres, which had been witnessed in some American schools. Similar large scale shootings, although not in schools, had been witnessed in New Zealand. They had implicated communities and families, and some children (2) had alluded to these when mentioning the need to have guns for protection. It was the older year groups who were becoming interested in topical issues, but even the younger children identified with the drink-drive issue, dangers of drugs, and one Year 3 boy raised the issue of needing a gun so that he could protect himself.

Aggleton et al. (1998) in their study of young people's beliefs about health found that 15 to 17 year olds were concerned about meningitis. In this study it was found that as early as Year 4, some girls were beginning to become interested in high profile issues such as meningitis and its dangers within social groups. Interest about meningitis by younger children in New Zealand may well be because school children are often reminded about the dangers of swimming in hot water pools. Meningitis is one virus which may be contracted from such a location.

Limitations of draw-and-write as a stand alone method

As has been said earlier, it is recognised that in this study there were limitations to the employment of the d-w tasks as a stand-alone method in order to assess what knowledge children had about health. Backett-Milburn and McKie (1999, p. 393) argued that asking children to draw pictures of what makes them healthy and what makes them not so healthy might produce a "more conventional and limited picture of health than might be discovered by other methods". Similarly, other researchers such as Gabhainn and Kelleher (2002), MacGregor et al. (1998), and Pridmore and

Bendalov (1995) have also recognised these limitations. In this study, subsequent small group conversations with children both enhanced and extended children's thinking about their knowledge and views about health. Backett and Alexander (1991) took an approach similar to that used in this study in their research, when they used d-w as an ice-breaker, and then followed this by talking with children. The results here demonstrate that what children were raising in their conversations went beyond the information they had initially presented through their drawings. This raised further questions similar to those raised by Backett-Milburn and McKie and Gabhainn and Kelleher such as:

- Were children simply carrying out an exercise to please their teacher?
- Was the project treated as a one off exercise by the children because they were asked to do it?
- Were some aspects of health too difficult to draw?

The above limitations were recognised in this present study but should not be seen as a criticism of the d-w method. Employed in tandem with other methods, d-w proved to be useful, providing an entry point into the research and into further planning for teaching. As a result of the exercise, several of the teachers recognised its usefulness for accessing children's existing knowledge about specific health issues, and fully intended employing d-w in the classroom as a teaching tool.

5.3 Sources of children's knowledge: results overview and discussion

Children were asked from where they had gained their health knowledge. Results were obtained by recording the children's conversations and noting the frequency of the sources. A rank order of the sources was achieved and the results illustrated in Table 5.3. Chi square testing was applied to the results to see whether there was any relationship between the results of the younger and older children. Comments made by the children will illustrate the discussion.

5.3.1 Overview of results

The results show television to be the major contributor to children's source of knowledge. From 63 children, 56 (b=30, g=26) of them identified the television as a most likely source for obtaining health messages. The only children not to acknowledge the television as their source of knowledge were the Year 3 girls and two Year 4 boys. Chi square testing found no significant difference in younger and older children's scores at the 0.05 level.

Year 3 girls all cited their mothers as being their major knowledge source, whereas, in Year 4, all children (b=6, g=6) said that the teacher was the major contributor. The teacher was the third most quoted source (b=21, g=17) with mothers ranking second (b= 18, g=21). Year 7 girls and all children in Year 8 did not rank the teacher at all. Neither of the differences in scores were found to be significant. Quite a few children (21: b=9, g=12) explained that self-knowledge was important. Of those 21 children, nearly all of them also mentioned the importance of television for their knowledge. Year 3 children said that the messages they received were stored away in their 'bottle of knowledge'. This they explained was a store-house in their brain, to be tapped when needed.

Table 5.3 Frequency of children's most likely source of knowledge

Numbers of children	Frequency by Year and Gender												Totals	Rank
	YEAR 3		YEAR 4		YEAR 5		YEAR 6		YEAR 7		YEAR 8			
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls		
	(5)	(5)	(6)	(6)	(5)	(5)	(5)	(5)	(5)	(5)	(6)	(5)		
Source														
Television	5	-	4	6	5	5	5	5	5	5	6	5	56	1
Self-knowledge	5	2	-	-	1	2	3	4	-	4	-	-	21	4
Teacher	5	3	6	6	1	3	4	5	5	-	-	-	38	3
Mum	5	5	4	6	-	1	-	-	3	4	6	5	39	2
Both parents	-	-	-	-	-	-	3	5	2	1	2	2	15	6
Other family members	-	-	3	2	-	-	-	-	-	-	2	2	9	7
Health professionals	-	-	1	1	-	-	-	-	-	-	-	-	2	9
Friends	-	-	1	-	3	1	3	3	4	-	-	5	20	5
Sports coach	-	-	-	-	1	-	-	-	-	-	-	-	1	10=
Community workers	-	-	-	-	-	-	-	-	-	-	5	1	6	8
Internet	-	-	-	-	-	-	-	-	-	-	1	-	1	10=
Totals	20	10	19	21	11	12	18	22	19	14	22	20		

Key:

Self-knowledge:	The children in Year 3 referred to this as their 'bottle of knowledge'. A place (brain) where they stored knowledge until it was needed.
Other family members:	Members of the family other than parents', siblings, grand-parents and other relations.
Health professional:	Doctors, dentist, health nurse, alternative health carers.
Community workers:	Those who run youth organisations, church or community houses.

There were two isolated incidences from a boy and girl in Year 4, who said that they often gained health information from a health professional like the doctor or the dental nurse. One boy in Year 8 mentioned his sports coach as being a useful source of knowledge about fitness and training programmes. Five boys and one girl in Year 8 also said that they regularly sought health advice from the local community worker. Although mothers as a source of knowledge had ranked high, those children who sought information from other family members was relatively small. However, nearly a third of the children cited friends as being a valuable source, particularly the girls in Year 8.

Overall, the results show that television, mothers, the teacher and self-knowledge were the most common sources of health knowledge.

5.3.2 Discussion

The results in this study were consistent with those found by Bendalov, Williams, and Oakley (1996), Hamblett (1994), Mayall (1993), Porcellato, Dugdill, Springett and Sanderson (1999), Turner, Zimvraiki, and Athanasiou (1997), Wetton and McWhirter (1998). Most of them found that children gained their knowledge from a variety of sources, but the most prevalent were television and other media, teachers and parents. The results in this study indicated the same order of likely sources. The discussion will focus on the following key aspects noted in the analysis of data:

- the prevalence of television as a primary knowledge source
- the essential role of mothers as a knowledge source
- school and teachers as a knowledge source, and

- the move from egotistic (self-knowledge) to a wider knowledge source.

The prevalence of television as a primary knowledge source

Television was the most frequently quoted source for children's health knowledge across all of the age groups. For example, in response to the question as to where he had gained his information a Year 4 boy replied "*I get it from the doctor and dentist, and I listen to the teacher when she's talking about health, but I get most of my one's from the T.V.*" In a study seeking children's knowledge and beliefs about cancer, Bendalov et al. (1996) found that although children drew on numerous sources of knowledge, television and other forms of media were the most prevalent.

They also found that some of the favoured programmes were daily or weekly soaps, because those programmes often put health issues into a context so that they were easily understood. Such a programme on New Zealand television is the local medical drama, *Shortland Street*. This television soap appears to be popular with children because it deals with issues in the New Zealand context, and is generally more culturally appropriate to these children than those programmes from other countries. Several of the children identified issues which had been dealt with in *Shortland Street*, such as, teenage drinking, teenage pregnancy, youth suicide, anorexia and self-image.

Conversations with the children revealed that most of them spent a great deal of their time at home with the television switched on, whether they were watching or just using it as background noise. Many of the older children actually cited that watching too much television was not healthy for them, but did acknowledge it as a modern social necessity in their lives. Advertisements, such as those targeting food which appeal to children are used constantly during daytime television. A report in 2001, from the National Alliance in Britain, found that children were exposed to between two and three times more food advertising than adults during prime time television, and the foods most likely to be depicted were high fat, high sugar or high salt foods (Carlisle, 2002). Personal observation of local prime time television (afternoon and early evening), reveals there is generally an emphasis on drink driving advertisements, mental health (telecom anti-bullying and relationships with

others), foods, body image and aggressive behaviours such as abuse, and fair play in sport. Late night and early morning television seems to concentrate on diet and American fitness programmes. In this study, the advertisements most often quoted by the children were often those which graphically illustrated dangerous behaviours, such as the drink-drive promotions, or those which depicted some of the national sporting personalities most known to them. Those least referred to were those which were specifically written for children, such as the New Zealand Telecom advertisements about bullying and relationships with others.

When the children were asked what they had learnt from the television a Year 3 boy said *“If you drink and drive you’ll be a bloody idiot.”* This was a recurring theme throughout and shown in both the children’s drawings and conversations. For example:

Boy: *Like drinking ads like... if you drink and drive you’re a bloody idiot!*

Res: Does this have an influence on you?

Boy: *Yep, it does on me.*

Others: *“Yep”..*

Res: How exactly?

Boy: *... cause when you grow up and go to parties and stuff like that, you should call a taxi or have a safe driver.*

A Year 6 girl pointed out that if you drink and drive then *“you get covered in blood.”* The implications here are that children were being frightened by images of blood and gore rather than receiving the positive message that, if they were sensible and made the right decisions the scenario described by this girl could easily have been avoided. The negative messages received were further reiterated by a Year 8 boy who said that he got all his information from the television and cited *“all those drink-driving ads, and smoking... like smoking does such and such to the body.”* Casswell et. al. (1998) found in their study that drink-driving promotions were often the most mentioned by children.

Other issues which had been sourced from the television and mentioned by several children were body image and diet. A Year 7 girl said *“I saw it on T.V that everyone should tune up like... 168 kilograms per day.”*

The most popular food advertisement promoted the breakfast cereal *Weetbix*, which showed other children giving out nutritional facts about wheat-based cereal. This was also the most often drawn breakfast cereal. Many Year 6 children indicated that it was the television promotion that had encouraged them to eat *Weet-bix* for breakfast. *Weet-bix* is also a sponsor for an annual children’s marathon which gains much television coverage. Some Year 8 boys also mentioned the *Nutra-Grain* advertisement which depicts muscular male life-guards. This raises the issue as to whether the boys admired the athletic images portrayed rather than hearing the message about the product.

When asked what television advertisements taught them, a Year 6 girl suggested, *“Don’t drink and take drugs unless they help you. Like, if you have headaches... Panadol and stuff.”* Children often received incorrect information about health from the television, because they often took the sensational aspect of the story as the truth rather than heeding the sometimes hidden, but real message. A Year 5 boy indicated this when he said, *“I watched this programme one night about a guy who was so fat they had to get a crane to lift him out of his house cause he’d died.”* The programme had actually been emphasising the prevalence of a poor diet and obesity in the South Pacific region, but for this boy, the need for a crane to rescue the man seemed to be of more interest and significance.

One promotion of increasing interest for Year 5 boys in particular was that of fair play on the sports field.

Boy 1: *And things like, when you are playing sport and you get rough and things like that. Things like good and bad sportsmanship.*

Boy 2: *Like this boy was sent off because he was pushing in soccer and arguing with the ref.*

While many of the television promotions were hard-hitting and appeared to have had an impact on the children, many sent mixed messages. Often, children were missing the message altogether. Those promotions most often cited, were those which were aimed at an adult audience, but were remembered by the children because of their graphics and the language used.

The essential role of mothers as an knowledge source

Although 15 children cited both of their parents as being their source of information in this study, half of all children said it was their mother who had taught and provided most of their health knowledge. Turner et al. (1997) in a study of children's understandings about fat in the diet, found the mother to be the most important source of information about food and healthy eating. This may be understandable since, for most children, the mother is seen as the nurturer and carer. The home was identified as the major location for learning health knowledge (Mayall, 1993). Children interact with television, and other media tools in the home, but primarily, home is where health messages are heard and positive habits learned, with the mother being the instigator.

In this present study, when asked where they had got their health information from, many Year 3 children, particularly girls, put themselves first and stated that they *"just knew it"* or *"I figured it out for myself"* or *"I store it in my bottle of knowledge and when I need it, I just think it up."* Mothers were begrudgingly acknowledged as possible knowledge sources. One girl, when asked what she might learn from her mother replied, *"Oh well, she doesn't say much because she doesn't know much... cause she keeps on learning, but mostly she, well, I tell the stuff to my mum."*

A Year 4 boy said *"I get a lot from my mum, and sometimes I'm just watching T.V and out pops an ad about stuff, and I listen to it to find out info, cause I might need it at school and I will know the answer."* A Year 5 girl suggested that they pick up information from their mothers because *"like at home, mum says don't eat this or don't eat that."* This suggested that mothers were constantly providing a hidden curriculum in regard to what is or is not healthy, and their children were picking up

on these constant reminders. Female teachers also had an important role to play, particularly where children might live in a single male parent environment. One Year 5 boy in particular quoted his female teacher constantly as his source of information.

Eight children in Year 6 referred to their parents as a source of information rather than their mothers, but in Year 7 and Year 8 it was very noticeable that mothers or older female siblings were being referred to. A Year 7 girl, when asked who it was who had provided her with health information, said, "*My mother... yes, she won't let us have junk food. She keeps telling me it's not good for me.*"

At a time when questions were surfacing about puberty and change, boys and girls from Year 7 and Year 8 said that it had been their mothers who had explained the facts to them. Some said though, that embarrassment led them to tell their mothers that they already knew the facts, "*then we go and talk to brothers or sisters or our friends!*" A Year 7 boy said, "*My mum, like, started it, but she hasn't told me everything yet, not about sex.*"

Year 8 boys were particularly interested in personal health issues and a long discussion centred on how they would nearly always go to their mothers as the person whom they could trust. Five out of six boys acknowledged the important role of the mother, although they also said, that if they wanted to be sure of absolute confidences and were too embarrassed to talk to their parents, then they were more likely to seek the sympathetic ear of a local community worker.

As Mayall (1993) suggests, the importance of mothers as a key source of health education information could be because of their role as the carers and nurturers in the family. Conventional belief is that in most New Zealand families, mothers are the ones who feed, clothe and nurse children, take them to the doctor, fill their lunch boxes, attend to hygiene needs and are most likely to be heard saying: "*Don't do this or that. Eat this, it's good for you. Have you cleaned your teeth? Brushed your hair?*" Mothers, also usually attend school meetings and coach junior sports teams. It is hardly surprising that they should be seen as an important knowledge source. In the case of the dysfunctional family unit or one without a mother, children were more likely to seek answers from, or talk to, female relations, female siblings and female teachers, or other females they could trust.

School and teachers as a knowledge source

Although teachers and school were the children's third most identified source of knowledge, they were not seen in the same sense as mothers. Whereas mothers were the people to whom children were more likely to take their questions, worries and concerns, teachers were more likely to be those who inadvertently provided the rules for health. Children were conscious of the constant reminders at school about hygienic practices, to sit quietly and eat their lunch and to change for physical education. They were also conscious of good manners. These aspects were seen as being part of normal school life rather than being associated with the health curriculum and "real" health knowledge. Mayall (1993, p. 475) comments "[S]chool can be described as not recognising children's competence and knowledge about health knowledge."

In this study when children mentioned information gained from the teacher it was most likely to be associated with preventative programmes which ran periodically and separately to the curriculum. Such programmes were *Keeping Ourselves Safe* (KOS), *Drug and Alcohol Resistance Education* (DARE) and *Understanding Changes at Puberty*.

The move from egotistic (self-knowledge) to a wider knowledge source

During their conversations some of the younger children constantly used the first person in their speech. They seemed to assume that their knowledge originated from themselves. They did not appear to recognise their health knowledge as coming from other sources; for instance, one Year 3 girl said "*I just know it.*" Most of the Year 3 boys said that they got it from their "brain". They did concede though that they had a store in their heads called "their bottle of knowledge" and that other people might contribute to this store. Porcellato et al. (2002) also refer to young children's egocentrism in their study about children's perceptions of smoking.

By Year 4 and Year 5, many children had begun to accept that family, teachers and television provided their knowledge, apart from the three children who thought that they (themselves) were their only source. Year 6, 7 and 8 children seemed to

have more of a world view, and cited a variety of different sources. Some children in Year 8 recognised that there were many sources of information and influences on their health, and that they required skills to deal with this information and, sometimes, misinformation. They had also begun to realise the value of discussion with their peers. One Year 8 girl said *“We sometimes talk to mates, like if you’re being bullied, we’ll talk to mates about issues like that.”*

In Year 7 and Year 8, some children were beginning to assimilate the information they wanted and were becoming discriminating about what they should learn and when. In a conversation about information of a sexual nature, one Year 7 boy said, *“Well it’s got to come sometime hasn’t it. But you learn it in high school... we’re too young.”* Another said, *“When the time is right my parents will tell me.”* These boys knew enough to satisfy them, and were confident that they would know when they needed more information.

As was the case with the d-w tasks, the conversational interviews were showing a distinct progression in children’s learning about health, health information and desire for more knowledge as they got older. This was similar to the findings of other researchers, but in particular Wetton and Moon (1988), Wetton and McWhirter (1998) and Williams et al. (1989).

5.4 Children’s issues and concerns: results

In the last of the three questions in Theme One children were asked if they had any issues or concerns about health. Table 5.4 illustrates the results with qualitative data about these concerns or issues by age and gender. The qualitative data comprise comments made by individual children, but generally typifies the feelings of the small conversation groups. During the analyses, any variation between boys and girls is noted. Discussion and implications for the curriculum conclude this phase of the research.

5.4.1 Overview of results

With the exception of Year 5 girls, Year 6 boys and Year 7 girls most children made some mention of drugs, alcohol or smoking as a real issue. Three Year 8 boys

referred to drugs in conjunction with other issues. One boy explained, “*We see so much violence, sex and drugs on the television and at the films that we ought to learn more about them at school in health.*” Some of the younger girls (Year 3) had questions about smoking and drugs and some of the Year 4 boys saw the need to learn and know the names of drugs so that they might avoid them.

A few Year 6 girls wanted more information on what drinking and smoking actually did to the body. By Year 7, several of the boys focussed their conversations around the types of drugs they might encounter at social events. They also wanted more information on the use of needles. Year 8 girls were particularly interested in the way in which teenage drugs were being targeted by retailers and through the media.

A few children were concerned about what to do in situations of violence. For instance, some Year 3 boys and Year 5 girls brought up the issue of bullying and knowing what they ought to do should they find themselves confronted by such a situation. A Year 5 boy wanted to know how to deal with the aggressive behaviours of others and a Year 7 girl pointed out that they ought to learn how to be more assertive when they found themselves being pressured by others. Two boys, one in Year 3 and the other in Year 7, were so concerned about violence that they wanted to learn about guns as a means of protection. Another boy in Year 8 had also alluded to the need for more learning about skills for personal protection against violence. On the whole more boys than girls seemed concerned about aggression and violence.

Table 5.4 Children’s issues and concerns about health

Year	Boys	Girls
Y3	<ul style="list-style-type: none"> What the consequences are of drugs, drink and smokes? How do you deal with bullies? What were really healthy foods for? 	<ul style="list-style-type: none"> Why smoking and drugs are bad for you? Why did they need to exercise? Why we have to avoid some foods? Why do we have to be healthy?
Y4	<ul style="list-style-type: none"> We need to learn how to protect ourselves. How to deal with pressure to take drugs. What happens when we don’t drink water? How to deal with inappropriate approaches by strangers. 	<ul style="list-style-type: none"> What if parents give them alcohol? What is meningitis and its affects? How germs are spread.

Y5	How to deal with the aggressive behaviour of others. What will happen as you get older if you don't look after your health? Is there a correct way to exercise?	What U.V. rays are and how they affect you? How should they take care of the senses? How do they deal with feelings, other people's behaviour and relationships? Who could they talk to if they had problems and who could they trust? What should they do if they are being bullied?
Y6	How could sleep really help them to stay Healthy? How could they keep the body in shape? What do fizzy drinks do to the body?	What the different diseases are and their effects What are the differences in importance of different foods? What are the effects of smoking, drinks and drugs on the body? What should they do to keep the body in shape? Information about personal hygiene.
Y7	Why did drinking and drugs not improve their lives? The consequences of using dirty needles The consequences of teenage pregnancy, teenage suicide, affects on the family and who to talk to.	Body image and the effects of dieting. Learning to be assertive when dealing with pressure. Knowing how to relate to people with medical conditions and disease. Knowing who you can trust.
Y8	Only being told some things and not those they really want, like, sexual information, safe-sex and sexually transmitted infections. Who can they ask?	Information about conventional and alternative health treatments. The media and retail involvement in targeting Drugs for teenagers. Only getting the main points, not the big picture.

The results indicated that few children were concerned about healthy eating when dealing with concerns and issues about health. Two children, a boy and a girl in Year 3 did mention the need for them to know about healthy foods, or which particular foods to avoid, and one girl in Year 6 wanted to know about the important difference between the food groups. One Year 4 boy was concerned about the need to drink water and a Year 6 boy raised the issue of the negative qualities of fizzy drinks.

Several of the older children, one girl in Year 6 wanted more information on how to keep the body in shape and a Year 7 girl was concerned about some of her peers who were dieting inappropriately. She explained that she wanted to learn about body image and the right way to keep the body in shape. This girl commented:

A lot of girls think that all there is being skinny to look good. But you also have to know when to stop dieting, because some girls get carried away, and keep trying to lose weight, even though they don't need to.

The issue of keeping the body in shape was further alluded to by a few children who had expressed a desire to learn about the correct way to exercise (Year 5 boy), why there was a need to exercise at all (Year 3 girl), and the correct way to warm up before exercise Boy (Year 7).

Some girls in years 4, 6, 7, and 8 wanted to know more about different types of disease and viruses such as meningitis. They asked about the effects of different conditions, the manner in which they might be transmitted to others, contamination by germs and the ways in which they should relate to people who might have a particular disease or medical condition. One Year 8 girl also wanted to debate the issue between conventional and alternative treatment remedies.

Only one child out of 63 raised the issue of stranger danger. A Year 4 boy thought that they ought to learn more about how to deal with inappropriate approaches made by strangers. However, there were other issues raised by individual girls in Year 5 and Year 7 and a boy in Year 7 and another in Year 8. They all spoke about the need to know who they could trust and who they could talk to should they wish to talk about personal and confidential problems. These included issues such as teenage suicide and teenage pregnancy.

There were further isolated concerns across the age and gender groups. A Year 3 girl asked “*why do you have to be healthy?*” A Year 5 boy was concerned about “*what happens to you as you get older if you do not maintain your health?*” A Year 6 boy wanted to know about the necessity of sleep and a Year 5 girl asked about the real damage that could be caused by the sun and ultra-violet rays. Another Year 5 girl was concerned about feelings, both personal and other people’s feelings. She thought that they ought to learn about how feelings might affect relationships. A Year 6 girl thought that they should learn more about personal hygiene and how a lack of it might also affect relationships. Concerns were also raised by three Year 8 boys who wanted far more information about sex, sexuality and sexual relationships.

Some of the Year 8 children summarised this section by suggesting that they were only ever told what teachers thought they should know, but not what they really wanted to know (Year 8 boy), and the girls further commented that they were only ever given the main points about anything. They felt that they were never given the full picture.

5.4.2 Discussion

Evidence in the results throughout Theme One have pointed to the progressive knowledge of children as they moved up through the age groups. An analogy may be made between the developing negative and the final clear photographic image. The picture which has been emerging is that of basic, sometimes cloudy knowledge of some of the younger children and the emergence of critical thinking for some of the older children. Similarities have been reported by researchers such as Wetton and McWhirter (1998). In this final question of Theme One children were asked to identify and talk about any concerns and issues they might have about health. Children in the younger age range found it difficult to distinguish between questions about health, and their concerns and issues whereas many children in the older age groups were beginning to identify some critical issues for which they were seeking answers. Many older children, too, were beginning to recognise health issues within the lived experiences of their own and others' lives.

Another key factor during the conversations with the children was that many of them were raising issues which had not been depicted in the d-w tasks. This was alluded to earlier in this chapter, but was particularly evident in the discussions about children's issues and concerns. Similarly, Pridmore and Lansdown (1997) earlier had reported in their London study of children's perceptions of health that while drawing pictures gave rich and valuable data, it should be supported by children's dialogue.

The conversations, particularly with children from Year 6 onwards, raised issues and concerns that were most revealing. The school used in this study had full primary status, and it could be speculated that these children in Years 7 and 8 (in a smaller school) would be less worldly than some of their peers attending a larger Year 7 and 8 Intermediate School. This proved not to be the case, and some of the issues raised by Years 7 and 8 children, such as teenage suicide, access to street drugs, concerns about sex and sexuality and personal issues, might have been more expected from high school students.

It was difficult to separate the issues, but the key conversations focused around the following issues:

- Exercise
- Eating habits, food and diet

- Pressures and queries about drugs, alcohol and tobacco
- Personal and environmental hygiene and the transmission of disease
- Sex information and sexual behaviour
- Safety: Mental health issues including suicide, violence, guns and aggression
- Concerns about the manner in which health is taught.

Issues about exercise

Issues about exercise were raised by Year 3 girls and Year 5 and 7 boys. One of the Year 3 girls asked why it was necessary to do exercise, and why did they have to play sports? Children constantly received messages that they should do regular exercise and that playing sport was good for them, but the children intimated that they were never told why. Gard and Wright (2001) alluded to discourses about physical education which very rarely mentioned the social and fun aspects of physical activity. In this study, a boy in Year 5 mentioned the need to exercise properly in this way:

Like what will happen to when you grow older? Like, in the old days they used to do lots of bouncing stretches that's bad for your bones, and when you stretch like this, not go right down to here, because it hurts your back.

Another boy in Year 6 suggested that it was a real concern that young children did not understand the need for warming up. He pointed out:

You should know the effects, because if you don't do it you're going to be stuffed. Like once, I couldn't be bothered stretching or warming up and I pulled a muscle in my leg and couldn't play sport for days, so I always warm up now.

These issues concern the teaching of physical education, and the messages passed to children through the omission of elements other than the actual participation in the activity.

Issues about eating habits, food and diet

Various concerns were raised by some children in Years 3, 6 and 7 about eating habits, food and diet. For the younger children, central issues were knowing which foods were not good for them, which foods made them fat, and which foods made their teeth go yellow and rotten. This is consistent with the findings of Watt and Sheihan (1997) that in conceptualising food and eating children were worried about foods which caused fattening, acne, and tooth decay.

One boy in Year 4 was concerned about always being told that they should drink plenty of water but did not really know why. He was assisted with helpful explanations by his peers in the group.

Boy 1: *What happens if you don't drink water?*

Boy 2: *You hydrate and get very dry*

Boy 3: *Just like Craig Barrett, when he couldn't keep on walking, and he just fell down and he couldn't get back up... (Craig Barrett is a NZ athlete)*

Boy 2: *It's like having sleepy legs, and you get all floppy,*

Boy 3: *It's like your muscles break down and don't work any more...*

Boy 2: *It's like you try to walk straight and you can't.*

Boy 3: *Sometimes it's like there's a desert inside your body cause it's so hot.*

Of some concern too, were the number of occasions that foods were referred to as “*bad foods that made you to get fat*” (Year 3, girl). Several Year 7 girls talked about “*fattening food*” in relation to anorexia and bulimia and indicated their concerns about the behaviours of some of their peers. In response to concerns about dieting, one girl said, “*You should only diet like, sometimes girls eat too much and they get fat.*” Several other researchers have found the same attitudes in children towards food, diet and body image (Blissett, Lysons, & Norman, 1996; Gard & Wright, 2001; Watt & Sheihan, 1997). Blissett et al. found in their 1994 study about dieting behaviour, that over-weight children, especially girls were particularly concerned about diet and the need to be thin. They found that over 50% of 100 children aged 6-9 years thought that it was healthy to be thin, and that 20% had missed meals in order to lose weight. Some researchers such as Burrows, Eves, and

Cooper (1999) and Mulvihill, Rivers, and Aggleton (2000) have found that many girls, in addition to dieting, will engage in physical activity because they see this as an additional means of losing weight. This was also true of some children in this study, particularly girls, who mentioned looking good and having a good body shape.

The media, advertising, film, video, models and shop window displays all depict the body beautiful as being the acceptable norm today. To be thin is to be acceptable and, when children are not seen as fitting the perceived norm there is potential for ridicule by peers. A possible consequence is that there are some children in primary school who are becoming very conscious about their bodies. Several researchers have found, when undertaking studies of children's attitudes to food, that weight control was one of the factors to be considered when making choices about which foods to eat (Blissett et al. 1996; Watt & Sheihan, 1997). Thatcher, Reininger and Drane (2002, p. 76) found that self-perception and a dissatisfaction with their bodies led adolescents to engage in "[D]isordered eating behaviours such as bulimia and anorexia, and an increased desire to change body weight through excessive exercise and diet pills." Their research indicated that these behaviours were also associated with adolescent attempts at suicide.

Issues about pressures and queries about drugs, alcohol and tobacco

Drugs, alcohol and smoking (DAS) were mentioned in conversation by many children and appeared to be a high priority in children's health concerns and issues. With the younger children the high profile of DAS in a variety of media may have played a significant factor in their interest. For example the conversation, already cited, by a Year 3 boy revealed that television was a factor. In an American study Hahn, Hall, Rayens, Burt et al. (2000) also found that children were knowledgeable about DAS because of the high media profile, and, also because of their use in the home. Children in this present study seemed aware that tobacco was a drug, and they also often referred to close family members who they saw daily practising the habit of smoking. Close association with those who smoked cigarettes or drank alcohol seemed to prompt concerns by some children, such as why people did it. They were also aware of marijuana, because as one boy stated, "*Smoking is drugs, and... there*

are these other kinds of smokes.” This raises the question of when is the appropriate time to raise the more sophisticated issues surrounding drugs.

Children were also aware of and concerned about the pressures on them to engage in drug behaviour. One Year 4 girl worried about what to do if a parent offered you a drink and a Year 4 boy said *“Like, when you are a teenager, people, like, some other teenagers will try to get you to try drugs or things like that.”* Some Year 8 boys were particularly concerned about peer pressure and drugs. One boy suggested *“At high school you get offered lots of drugs like marijuana and dope”*, and another suggested that a lot of pressure is exerted by high school students on younger children, even before they get to high school. Year 8 is a time when the transition to high school is imminent, and these conversations indicated that these children were well aware of what they were likely to be confronted with in the near future, and were concerned about how they would deal with these pressures from older teenagers. A British study by Porcellato et al. (1999) revealed the influence of parents on young children’s drug perceptions and behaviour, which later became superseded by peer influence. Taylor (2000) found that a successful method for dealing with adolescent health issues and concerns was through the use of drama. Such issues as DAS could be put into context, and issues and concerns recognised and addressed. Mentioned earlier in the first section, it was found that many children indicated the many negative messages they received about health, and the issue of instilling fear into children. This was also found by Roberts et al. (1993) who suggested that since many of the preventative programmes taught in school dealt with the major killers, such as DAS, children were picking up the message of fear. This may require careful consideration in the future when selecting appropriate programmes for use with children.

The findings of Orme and Starkey (1999) in exploring young people’s views on drug education in schools were that adolescents do have drug related concerns and issues, but are often unwilling to talk to parents about them. Children, as young as Year 5 in this study revealed that they were unsure of talking to adults they knew because they did not know whether they could trust them, and that most certainly, they would get into trouble. A Year 5 girl stated:

Who to talk to... if you've got huge problems and you can't talk to your parents because you're too scared to, and all your friends might take it the wrong way, and you think that if you talk to your teacher, then the teacher will tell your mother, and then you will be in trouble or the teacher will take it to your parents. So, who can you talk to?

Some of the parents and teachers of the younger children expressed their surprise to see issues of DAS raised at such an early age, and did not think that it really came within their personal experience. Year 3 and 4 teachers made the observation that these issues were not really a part of a young child's repertoire, and they blamed television. However, in a New Zealand study, Thomson (1997) commented that young people at school in their teens actually talked from experience, not from information gained from the media. Similarly, McWhirter et al. (2000) suggested that medical and other drugs feature prevalently in young people's life experience today, and information and access to them may well come from a variety of sources.

Only one boy in this study actually revealed that he had already acquired the habit of smoking, and an issue for him was how to stop. This was a valid point, since most programmes currently taught in schools are preventative in nature, and do not recognise that many children may already be addicted to some form of drug behaviour. Denscombe (2001) in a study on smoking cessation among young people, identified the need for intervention programmes in schools. Thomson (1997, p.10) found that some of the young people interviewed in a New Zealand study had never had any drug education during their school careers at all.

The findings in this study suggest that there is a need for a continuing commitment to drug education in the primary school, but that any programmes should not merely employ the preventative approach, but also intervention. Any programmes have a need to be appropriate for age and circumstance (Starkey & Orme, 2001), and above all, that children are consulted and their voices heard (Thomson, 1997; Backett & McKie, 1999; Starkey & Orme, 2001).

Issues about personal and environmental hygiene and the transmission of disease

Personal hygiene was very rarely mentioned by the children, although it had been repeatedly alluded to in the d-w tasks. However, the spreading of germs as a result of unhygienic practices was mentioned by Year 4, 6, 7 and 8 girls. Year 4 and Year 6 girls brought up the issue of the possibility of catching meningitis as a result of sharing someone else's drinking glass. They wanted to know what type of virus meningitis was, and why it was possible to die from the virus. There were some sceptics among the teachers, who suggested that, had there not recently been a meningitis scare, then it was highly unlikely that the virus would have been mentioned. However, Boyes and Stanisstreet (2001) found that young people really did want more information about conditions, particularly those which might affect their peers. In their study of young peoples' views about the nature, causes and consequences of asthma Boyes and Stanisstreet found that while young people in Years 7 – 11 appeared informed about the condition, there were some gaps in their knowledge. They also found that they would generally like more information about the condition and suggested that more information could be given to all students at school.

There were others in the older age group who were interested not only in meningitis, but germs and viruses, such as hepatitis, and HIV/ Aids. Comments made by some of the adults might suggest that children's concerns and questions were viewed as unimportant, and that adults would determine what the children should and should not learn in health education. Researchers with a particular interest in the social world of the child (Alderson, 1995; Christensen & James, 2000; James & Prout, 1997; Kiddle, 1999; Smith, 1997; Waksler, 1991) and others have emphasised over the last decade, that if we want to know what children think then we need to ask them and listen to them. Having done this, we should not treat what children have said with contempt, but acknowledge that what the children are saying may be providing a platform for teaching and learning. Children in this study wanted to know more about diseases, how they were transmitted, how might they (individually and collectively) be affected, and how might they avoid them. Some points of use for informing the curriculum and teaching were made by some Year 8 girls.

Girl 1: *And like, if there is a disease, don't just tell us the name, tell us what we would feel like and how we can deal with it.*

Girl 2: *Like, they just tell us about them and what they can do, sometimes they don't tell us the bad things, and they should, 'cause we need to know!*

Issues about sex and sexual behaviour

Some Year 7 and Year 8 children raised issues pertaining to personal and sexual relationships, sexual orientation, safe sex, teenage pregnancy and access to counselling services. It was unspoken, but indications were that some of the more mature Year 8 boys may have been sexually active, and that they wanted information, and saw the conversations as an ideal forum. There were others, particularly two boys, who were less physically mature, and who had absolutely no interest in the conversations about relationships. The differing levels of maturity within one class group could pose problems for teachers, and a careful assessment may be necessary to ensure the appropriateness of sex and sexuality education taught in the classroom. Jordan, Price, Telljohann, and Chesney (1998, p. 296) suggest that during the early years of adolescence “education and skills-based training in recognising, defining and taking the proper actions regarding their sexual behaviour should guide the sexual health programmes.” It was clear in this study, that although some were ready for this approach, there were others, particularly boys, who were barely approaching puberty.

One Year 8 boy suggested that he was interested to know about sexual protection, because “*you see these ads and movies about sexual protection and that is a very important area that we need to know about.*” The Year 8 girls spoke about learning about relationships, and being able to talk through relationship issues. There was a big difference between some girls in Year 8 who were more concerned about social issues and the boys, three of whom continually emphasised the physical acts of sex.

Another Year 8 boy brought up the issue of sexual orientation, same sex relationships and the issue of HIV/Aids. Confusion about identity was raised by one boy, and the humility of dealing with comments like “*You're gay*” and “*If you are*

doing it with someone who has got Aids, you can get Aids.” Some misconceptions were evident during the conversation of same sex partnerships. These misconceptions were also often resolved by the children themselves during the ensuing conversations. For example:

Boy 1: *But you don't need protection for same sex because there is no chance of getting pregnant.*

Boy 2: *Do you think the only reason you have safe sex is to prevent pregnancy?*

Boy 3: *Safe sex is probably more important to prevent the transmission of disease...*

Boy 1: *Can gay women get pregnant?*

If children's misconceptions were not resolved within the group the researcher interjected with further information. If not resolved, and if appropriate, the researcher passed on the need for the teacher to clarify issues with the children. It did have to be noted though, that the confidentiality of the children had to be respected.

A Year 7 boy said that they should learn about the consequences: *“Like if you get yourself pregnant, like if you are 15 and you're pregnant, what um... how can it affect you?”* This was a deviation from thinking about self, to thinking about the consequences for others. Lawlor et al. (1999) identified that there needed to be more time given to sex education in the curriculum, the need for appropriateness, cultural appropriateness and the need for sexual health counsellors in schools. The point made by both Year 7 and 8 boys indicates that maybe there is a need for sexual counsellors even at the primary school level. Taylor (2000, p. 169) found that young people in early adolescence required information about “access services [and] emergency contraception... .”

A problem in providing sex education in a primary school is that teachers may be reluctant, due to the presence of very young children in the school. Most primary school teachers are not trained to teach sexuality, and do not feel comfortable about teaching it. Sieg (2003) found the same to be true in her study, where teachers talked of the barriers to teaching sex and relationship education. As a consequence, there

may be a reliance on public health professionals visiting and teaching. The programmes are, therefore, seen as something outside of the curriculum; they may be missed if the school programme is too full, and, because of the one off nature of the programme, a child may be absent on that one day. There is a real need to deal with children's questions, to allay some of their fears and to work through many of the misconceptions they may have. In a recent article about the continuing obstacles for sex and relationship education (SRE) in English schools Sieg (2003) argues that if "the prevalence of teenage pregnancies and sexually transmitted infections" is to be reduced, then a more adequate programme of SRE needs to be offered in schools. Sieg further points out that schools are considered safe environments where young people can...

Clarify their knowledge, values, attitudes and skills in relation to sexuality, love and sexual relationships, thereby encouraging them to adopt sensible and mature positions from which to make their sexual decisions and relationship choices (p. 36).

The concerns which some of the Year 7 and 8 boys were raising in this present study suggests that they wanted to be given more information about safety for when they were in a sexual relationship, and about the moral dilemmas of relationships. However, some felt that teachers rarely gave them the full picture, or indeed, what they really wanted to know. Sieg (2003, p. 39) points out that SRE has the potential to become "an education for life that not merely warns young people about risks of HIV, STI infections and unplanned pregnancies, but also assists them in developing healthy and rewarding sexual lifestyles and relationships."

Confidentiality

During the conversation with the Year 8 boys, one had wanted it confirmed that their conversations were confidential and that what they might say was not reported back to the teachers. It became evident as they were speaking, that by Year 8, some of these boys were already sexually active and had many questions as to where they could acquire information without their queries being reported to their

parents. Lawlor et al. (1999) also found that young people were concerned about confidentiality, and Jordan et al. (1998, p. 295) suggested that some students in their study may not have been truthful in the information given because they feared that their “anonymity and confidentiality may have been compromised.”

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Issues about safety: (including mental health issues including suicide, violence, guns and aggression)

This issue is discussed, not so much because of what children said, but because of what they did not say. Very rarely were situations of physical risk identified by any of the children. It might be construed that participation in drug-related behaviour might be perceived as engaging in risky behaviour, and although most children referred to the inadvisability of drinking and driving they did not identify it as a risky behaviour which might actually compromise their safety. Stranger danger, and the inadvisability of talking to strangers, was briefly alluded to by one Year 4 boy. This concurs with one teacher who had stated that young children usually relate to experiences with which they were familiar. One boy in the school had had a frightening experience during the same term as the interviews.

The issue of violence was a focus for some boys, but this was not generally common to the study. Gumpel and Meadan (2000) conducted a study of children’s perceptions of school-based violence, but did not explore their concerns and issues. They found that boys and girls differed in their perceptions of violence, a result similar to the findings in this study. Some boys were more likely to focus on violence and aggression, whereas girls generally only referred to bullying when talking about violence. One boy in Year 3 raised the issue of guns when asked about health concerns. The issue might have been prompted by the recent televised programme on the school massacres in the United States. The issue of a seven-year-old raising the question of guns was concern enough, but during the course of the conversation it also became apparent that this same boy considered it appropriate to deal with violence with even more violence. This could well provide the teacher with scope for teaching and learning in the classroom. Another boy had at one stage interrupted the conversation saying “*Guns have got nothing to do with health.*” The issue resurfaced

in Year 7, when a boy suggested that since the world was becoming increasingly more violent, and because, in many New Zealand homes firearms were common place, perhaps they should learn about firearm safety.

Further to the issue of violence, a Year 5 boy thought that people often became verbally aggressive, which could lead on to physical violence and this, for him, was a worry. The boy said *“Sometimes if you have bad behaviour, like swearing, and then when you get older, you could beat someone up.”* When asked by another boy what he really wanted to learn about he replied, *“Like if, somebody gets smart to you, not to react and say bad things.”*

The issue of safety from violence, aggression and other forms of abuse may give rise to concern for the health educator, and calls for a positive approach to the manner in which this is dealt with in the classroom.

During another conversation with Year 7 boys the issue of stress was brought up, which led one boy to introduce the issue of suicide. The boy suggested that there were those amongst their peers who felt that *“their life isn’t any good.”* Another boy said, *“I don’t know how guys can do that to themselves, killing themselves.”* Another boy picked up on the idea of problem solving, suggesting that:

If you were just on the edge of committing suicide, and you don’t, you can go and help other people around the community that feel the same way, and like, solve their problems as well. So... people can solve your problems, and you don’t have to die.

When it was suggested to the boys that this issue was totally different to the issues they had initially drawn, the response from one of them was *“Because you don’t really think that these things come into health until you start talking about it”*. This comment draws attention to the matter of content taught as health in the classroom. Thatcher et al. (2002) in an examination of adolescent suicide made the suggestion that basic prevention techniques should begin well before children go on to high school.

Aside from the theme of violence, some children were well aware that they received the constant message that they should cover up in the sun, but were concerned that they were unaware of the real damage that ultra violet rays might

cause. A Year 5 girl said that everyone needed to know about the ways in which they could protect themselves and learn about the real causes of sun damage.

Also, children all seemed to recognise the daily health messages about food, hygiene and exercise, but, it became clear that many of them were not able to associate mental health aspects such as stress and suicidal behaviour as being a part of the health curriculum. This raises another issue that if children do not themselves recognise the above issues as matters about which they can talk at school, then their concerns are not spoken of by them and not heard by adults. In the words of Smith, (1997, p. 3) “children’s issues are often invisible and neglected.”

The manner in which health is taught

Several of the older children in this study referred to the manner in which health was taught and indicated that this concerned them. Some said that they realised that health education was a “*big programme*” (Year 5 girl) and that “*teachers should listen to what we have to say, like, I mean, you might want to learn about food and nutrition, but there are certain other things that you want to know.*” Similarly, a Year 7 girl suggested that many of them didn’t see the importance of some of the less obvious health issues because they were never addressed at school. A Year 8 girl also raised a similar issue, suggesting that because food is always being talked about at school, many of them have come to think of health only in terms of good nutrition, and that they actually wanted to go beyond that “*to the other stuff that we really want to learn.*”

Some of the other children picked up on the negativity of health messages that they were continually confronted with, something which had been previously noted in the children’s drawings. One Year 8 girl pleaded “*Instead of telling us what not to do, tell us why.*” Another Year 8 girl pointed out that “*teachers don’t actually ask us what we know, they just tell us what to do.*” This suggests that health knowledge and messages continue to be delivered to children in a traditional manner. Such a method concentrates on the delivery of facts and the obeisance of rules. According to Jensen

(2000, p. 146), traditional health knowledge on its own “increases students’ worries and feelings of powerlessness within the health area.”

What many of these children were intimating was that health education, in its present state, was not addressing their real needs and interests. School health content was still seen as that selected by the adult and delivered to the child. A final conversation with Year 8 girls summed up this section well. The girls were asked if they viewed health as being just exercise, food and smoking?

Girl 1: *No, I see it as like, school, and relationships, as well as changes at puberty.*

Girl 2: *Like everyone when they think of health, think of food...*

Girl 3: *Like all of us do, because the teachers don't really tell us anything else... so we think fruit and vegetables...*

Girl 1: *... And we need to look beyond that to the other stuff that we really want to learn. They should tell us, not just the main points about health, but the other points as well.*

Children have indicated in this study that they had a wider concept of health than was thought. The above conversation illustrated that children, by the age of 9-10 years, may well have been dealing with some very real issues, and they had questions which needed addressing. They were also beginning to recognise that these issues could affect their personal health. One Year 5 girl revealed “*People who have had trouble may not be able to tell anyone, so they might keep it inside and it all builds up and you can start coping with it in difficult ways.*” As Jensen (2000) and others have suggested, if the purpose of health education is to enable children to deal with issues within their own lives, then we have a need to hear what they are saying, and incorporate real issues which are of concern to them, and facilitate the learning of skills and strategies so that they may be able to intervene in their own lives and take positive action. Gadin and Hammarstrom (2000) pointed out that children should be more “active participants in the democratic decision making” about health curriculum content.

5.5 Conclusion

This chapter showed how children had engaged in conversation about their health knowledge, the sources of that knowledge and had shared their issues and concerns about health education in the classroom. The children had shared their experiences of health and expressed their viewpoints. The rich data, freely shared by the children, emphasised the importance of engaging in dialogue with children. The findings reported indicate that children's knowledge and understanding went beyond that initially depicted in the d-w tasks. The findings were that as children matured in age they were developing a more critical understanding of health issues. Children from all year groups were able to express concerns about specific health issues and concerns which they felt affected them and others. As children matured many were able to indicate the consequences of health risk behaviours. It was also found that a great deal of children's health knowledge was sourced from the television. Indications were that children were more likely to take notice of messages they received from television promotions rather than the messages received from teachers at school or from the packaged programmes such as *Drug and Alcohol Resistance Education* (DARE).

The overriding message received from some of the older children was that they were only ever given a minimal amount of information, and that the information was often not what they really wanted. This again indicates the importance of talking with children and hearing what they are saying.

In the next chapter both adults' and children's responses are sought about the importance of health education in the classroom.

CHAPTER SIX

Theme Two

Children's and adults' views of the importance of health education: Results and discussion

6.0 Introduction

The previous chapter gave the results of children's knowledge, the source of their knowledge and their issues and concerns about health. This chapter provides the results, analyses and comparisons between children's and adults' views about the importance of health education at school. Following the results will be an overview of the findings and discussion.

All participants were asked how important health education was at school and to justify their answer. For the children, the question was placed at the end of the session. For the parents, it was an opening discussion. Those parents who responded to the questionnaire were asked to indicate the importance of health education and then to write a statement of justification. Teachers were also asked to state and justify what importance they gave to health education in the curriculum.

All participants were asked to rate health education in school using the following criteria: very important, important, not sure, some importance, and, not very important.

Children placed a tick in the appropriate box on a large sheet of paper, and the parents did the same except for those parents who responded to the questionnaire, in which case they put a ring round one of the listed criteria. Teachers responded verbally during their conversation sessions with the researcher. The responses for each group were totalled to obtain a result. All groups were then asked to explain their response.

6.1 Theme Two: results

Table 6.1 illustrates the results for all groups of participants. The children's results are shown by year and gender, while parents' and teachers' results are shown by the year group they represent. The totals for each of the criteria are given immediately after the results for each participant group. Chi square testing was applied to the results to find out whether there were significant differences in the results of children and adults (to the 0.05 level), but there were none.

Health education was considered important by 18 children, 13 of whom were girls. Also of note was that it was not until Year 5 that 11 children had recognised the very real potential of health education. Like Year 5, children in Year 7 thought health education was very important. Of the seven Year 7 children, five of them were girls. There were 11 children who considered that health education was only of some importance. Of these children almost a half of them were Year 6 boys. This point will be discussed later, since it may have been the dynamics within the group which affected the result. The Year 8 result, where five out of six boys considered health to only be of some importance is worthy of note.

Just over half of the 62 parents also considered health education at school to be important. There were 18 parents who thought that health education was very important, and three who considered it to have some importance. These three thought that health messages would be better coming from the home and did not consider it a school responsibility.

Unlike the parents and children, most teachers thought that health education was very important. Only the Year 3 teacher thought it of slightly less importance, but did acknowledge that overall she thought health education was incidentally brought in to most areas of the school curriculum anyway.

6.1.1 Overview of the results

The following overview is based on the results as well as the qualitative data from the conversations. The comments are made by year group, and incorporate both children's and adults' views.

Year 3

Although many children (n = 10) thought that health education was important one boy did record that he was not sure. He did however state why he was undecided about the status of health education. In the girls group, one girl seemed to appoint herself as spokesperson for the group. This produced a snowball effect from the rest of the group. Porcellato, Dughill, and Springett (2002) also found this to occur during their focus group interviews, where an idea may have been posed which then inspired contributions from others in the group. The group contributions in this present study were aptly summed up by the self-appointed leader of the group who said *“if we learnt more about health then we would be better able to look after ourselves better.”*

The boys' group was very different to that of the girls. Each boy seemed to have an opinion which they shouted out with little regard for the others in the group. One thought that health was important because *“you can get a better job and you might get a good career when you are older, and you won't get bullied so much.”* Another boy explained that health education was important *“so that I can get smart.”* Another thought that *“if you don't get healthy you will be fat and lazy”* and yet another commented *“you learn much more, and it encourages you not to be a bully, and you will know what things are wrong and, how to stand up for yourself.”*

Similar to the Year 3 children, eight of their parents (n = 9) also thought that health education was important. Their justifications however, were quite different. Whereas most girls had seemed to link their justifications to the skills they might learn to keep themselves safe and healthy, and the boys considered what it was they could get out of health education, the parents generally appeared to see health education as a back-up to what they had already told the children at home. Many of the females thought that the education acquired at home and that taught at school should be complementary. One male offered the following explanation:

It's a shared job, coming from the home and then followed up at school. It's just as important as the other curriculum subjects. It might be argued that it's not a core subject, but it's as important as social studies and things like that.

Several of the parents also agreed that often children were more likely to listen to other adults and the teacher rather than taking notice of their parents, and this made health education at school important. Another female parent thought that children should learn the consequences of not carrying out simple hygienic practices as early as possible.

I think that if they do it when they are young... I know with my home based children, before we even eat we wash our hands. And when we've been to the toilet, or touch something, we wash our hands. They've got it in their minds... okay, we're going to have morning tea soon, we'll go to the toilet and wash our hands, and then we can eat. I think if you role model when they're quite young and carry it on... (interruption by another parent).

Five of the nine parents had responded via the questionnaire and did not justify their rating of health education. Most of the qualitative data for Year 3 parents relied on comments which had been made by the four parents who attended the interview session. It would therefore be difficult to recognise these comments as being truly representative of all Year 3 parents.

Out of the six teachers, the Year 3 teacher had rated health education in the curriculum as being of less importance. The other five teachers had considered health education to be very important. This did not mean that the teacher did not recognise some real potential in the health curriculum, but explained *“What the home does in terms of personal health and stuff, and motivation to others, is a lot more important than just what we teach in a classroom. Although we do try and teach it.”*

Year 4

All children in Year 4 (n = 12) rated health education as being important. The girls were by far the more vocal, wanting to give their justifications and explain their stance. By contrast, the boys offered no justification for their rating of health education at all. Of the many explanations given by four of the six girls, one said that she thought that it would be good to be taught things like health, although she did not

specify what those things might be. Before she had a chance to respond another girl interrupted her line of thought, suggesting that it would be good to learn about what to do and how to cope in an emergency. She said *“If you didn’t know what to do in certain situations the outcome might not be very good.”* Yet another thought that if they were given the skills then it might help also teach them to identify poisons. The final comment made was that health lessons at school would serve as a timely reminder to make regular visits to the dentist. Justifications made by these girls illustrated that most of them recognised the practical value of health education and the skills which they could acquire.

Three Year 4 parents (n = 5) indicated health education as being important, while one thought it very important. Since no parents had attended the interview the results for Year 4 were reliant on the questionnaire for data. There were however some clear qualitative justifications given by the five respondents. Of particular note was the female who wrote *“Without health education in the classroom many children would never get the opportunity to discuss health issues.”* Another female indicated *“If the schools ideas are different from home that’s good also, because it should bring about discussion between the parent and child.”* In the main it was the females who recognised the social advantages of regular health education. The two males seemed to be more focussed on the need to learn more about good basic cleanliness and hygiene habits.

The Year 4 teacher considered health education to be very important. In support of her rating the teacher explained *“Health education teaches children to become physically and mentally healthy members of society.”* She, like the Year 3 teacher acknowledged though, that health was a very difficult subject to fit into an already crowded curriculum, and they would only ever be able to scratch the surface.

Year 5

In Year 5 (n = 10) seven out of 10 children rated health education as very important, with the remainder believing it to be important. Three of the five girls gave justifications which were perceptive and provoking. For instance, rather than stating single issues, one of them explained health as being a big programme and something

that they really wanted to know more about. Two other girls added their agreement, one of them suggesting that health education could provide information about health they did not generally know. For example, one girl said that although she might know all about the food pyramid she still had unanswered questions, such as “*How does the body use these foods, vitamins and nutrients?*” Another girl added ‘*and what do they do to you that makes you healthy?*’ Although not all girls gave any justification, they did express their agreement with what had been said.

The conversations seemed to suggest that three out of five girls were saying that although there were many issues which could be covered in health education they were largely ignored by teachers. These girls were beginning to form opinions about their learning in health education, but seemed to be claiming that teachers continually repeated the same material every year. One girl argued that:

This is quite a big programme, because at school Mr X or other teachers should listen to what we have to say. Like, ‘look Mr X, we’ve done this activity about seven hundred times. Can we do something different’. I mean, you might want to learn about food, but there are certain other things that you might want to know. There are things you don’t know about.

The boys seemed to find it more difficult to justify their rating, but three out of the five boys did think that health education was very important. The remaining two rated health education as important. One of the boys who thought it very important suggested that health education could remind them about health practices such as:

Wash your hands before you eat and don’t wear dirty clothes. When it’s raining, don’t play outside, playing things like rugby or soccer, because you could get sick, and um... cold or flu, and wash your hands after you’ve been to the toilet.

Another boy pointed out that prior to learning some useful health messages both he and his friends had often engaged in unsafe practices which had had the potential to compromise their health. He explained, “*When we were small we used to*

write our names on our hands and stuff, and if you cut yourself and use vivids... we used to cut ourselves and draw a vivid line down the vein, and it left a blue mark.”

Since no parents had attended the interview session their results were taken from the questionnaire only (n = 11). Six of them thought health education to be very important, four considered it important, and one of them rated it only as being of some importance.

Similar to some of the Year 4 parents, many of these parents said that health education was important because for many children health information was not provided at home. One female wrote that health education was primarily a role for the family and the home, particularly with regard to sexual and contraceptive advice. Another female parent believed:

Children today are well aware of health in all aspects. I believe that health education should be a number one factor, important because a lot of children love to look and feel healthy, either by what they eat, their sporting activities and keeping fit with daily exercise as well.

The male teacher for this Year 5 class thought that health education was very important to teach. The teacher recognised health education as having equal importance and status as other curriculum subjects, and said that it deserved a permanent position in the classroom curriculum. This teacher also made the point that generally within their school, health education was only taught because it had to be. This, he explained, was because of the lack of time to come to terms with the very wide concepts of the health curriculum, and this seemed to be a major barrier. The teacher believed that it would be much easier to teach if a needs-based approach were to be used. He explained:

A structured programme doesn't always cater for children's needs. I think that it would be good to have specific topics covered, and those were part of the curriculum. But, if a need arises, then that needs to be addressed in class.

This teacher also believed it important that children learn about all aspects of living, and further, that children were given the relevant skills to deal with health

issues most likely to affect them. A consequence of watching children attempting to cope with personal issues in their lives, such as family or relationship break-up had made this teacher determined to address mental, spiritual, physical and social aspects of health with his class. The teacher wanted children under his care to learn the elements of living and care, the holistic aspects of health, and an awareness of self and others.

Year 6

All of the boys in Year 6 (n = 5) thought that health education rated only as having some importance in their overall learning at school. This particular group of boys demonstrated some behavioural problems such as attention seeking. They attempted to monopolise the session with negative interjections, particularly when the girls were speaking. This could have produced results which may not be representative for all Year 6 boys. By contrast, nearly all girls (n = 5) in the group had rated health education as being very important.

Whereas some girls justified their response, it appeared that none of the boys were prepared to offer any justifications at all. Some of the girls comments were:

Girl 1: If no one knew about health and there were no doctors, then everyone would get sick all the time.

Girl 2: If no one told us about what's healthy and what's not, people might die.

Girl 3: Like, if you're sick, you might not be able to help yourself.

Another girl thought that if she didn't have health education then she probably wouldn't eat so much fruit, but instead *"I'd probably only eat junk food."*

The parents (n = 10) were all women and therefore represented female views only. The majority of them (7) thought that health education was important, two thought it very important. One parent believed health only to be of some importance.

Similar to some parents from the previous three classes, four of these parents thought that health education at school should support what is taught at home. They believed that the school could provide a good knowledge base, and that many children were more likely to take seriously what teachers were saying.

I think that, yes, it's important because it's amazing how much school influences children in a big way. And even though they might learn something at school, they'll come home and talk to you about it, and I say, well it might not be that, they say 'Yes it is, because my teacher said it was!' So I think it's important because it's coming from an area where it's really hitting home. They do take it seriously what teachers are saying.

Further comments from these parents suggested that some of them believed Year 6 to be the appropriate time in a child's development for the more personal issues to be addressed, such as being informed about how their bodies work. These parents were looking beyond children learning about basic hygiene practice to a better understanding of puberty and the changes that were beginning, for some, to happen to the body.

A personal view that health education for the younger child was the responsibility of the home made one parent believe that health education at school only rated some importance.

The Year 6 teacher thought health education to be very important, but also explained that much health teaching was incidental rather than planned. The teacher stressed that at the Year 6 level health education was very important for instilling in children a positive sense of self-worth, allowing them to talk about their physical, emotional and social needs. The teacher also pointed to the contribution that health education could make in helping children to develop positive relationships with peers and others. The teacher explained:

I've just had problems with girls who are directing comments about their race, and they are being quite nasty to each other, and so we talked about how we are all made differently, like sometimes, because of religion and beliefs, we might eat certain things. Also, the way we are brought up is sometimes different. We have talked together about that.

Like the Year 5 teacher, this teacher explained that there was a general concern about how they could possibly fit everything into an already crowded curriculum. The suggestion was made that *"If the objectives for health education were to be broken*

down into manageable chunks and fitted into other unit work” then it might be possible to include health education within the core curriculum.

Year 7

All of the girls in Year 7 considered health education very important. There was a slight difference between the boys and girls, with two boys saying that health education was very important with the remaining three boys regarding it as important.

All girls in Year 7 (n = 5) stressed the importance of health education. One girl pointed out that it was as important as language education explaining *“It is as important as learning to write and stuff, because it’s the same, up the top with language and spelling and that.”* Many of the girls thought that learning about health was of particular importance because of its usefulness in their lives, but complained that the health education they received at school very rarely included issues which were relevant to them. One girl pointed out, *“Like the things we talked about today, they come up and seem important, but we don’t think they are because it’s not really taught in school”*.

The justifications made by the boys (n = 5) tended to be a little rushed as the session had run over time. However one did say that he thought that a very important aspect of health education at school should be to teach them about the ways in which the use of drugs and alcohol might affect them. Another boy thought that personal health should be addressed and he explained that health education could provide an important forum for discussing issues such as suicide.

Like several parent groups, Year 7 was represented by females only (n = 11). The eleven parents all considered health as an important aspect of their children’s lives. They generally considered Year 7 as a period of change. They thought that since many children were changing physically that school had an important part to play in educating children to cope with social relationships, health issues such as sex education, HIV and Aids, and making the right choices about drugs, alcohol and smoking. One parent pointed out that many parents had difficulty addressing some issues with their young adolescent and suggested that *“for those parents who don’t feel comfortable talking about the ‘birds and the bees’ sex education at school is very*

important. It is also very relevant that children learn it correctly and do not get the wrong idea.”

Another parent talked about the importance of health education to enhance children’s feelings about their bodies, pointing out that adolescence was that time when boys and girls were worried about their body image and the way in which their peers might view them. One parent made the comment, *“My son stands in his room saying that he doesn’t want to be fat.”* Another parent said that her daughter would not take a banana to school for lunch because *“You know mum, it looks like a boy’s you know what, and you get teased because you take a banana.”* Several parents acknowledged that children of 11 years of age were beginning to be sensitive about what others said to them, and believed that these issues could be dealt with during health education in the classroom.

The male teacher of this Year 7 class believed that health affected every aspect of life, and therefore health education should be treated as being of extreme importance, and incorporated into all aspects of the curriculum. This teacher also regarded the teaching of health education as a means of guiding children by means of facilitation, discovery and questioning. While it was recognised that the health curriculum had not at that stage been fully implemented, it was considered as being potentially useful.

Getting along with others and personal relationships, awareness of and dealing with stress and the importance of personal hygienic practice were considered important areas of learning by this teacher. It was also mentioned that most Year 7 children had, by this time, acquired a great deal of knowledge from various sources and that they now required life skills so that they could use this knowledge. However, while the teacher acknowledged the importance of health education he also pointed out that it actually rated fairly low in terms of time commitment. The teacher hoped this would change in the near future.

Year 8

Five boys (n = 6) in Year 8 thought that health education rated only some importance, with only one of them rating it as important, while four of the girls (n =

5) generally rated health as important, with one of them rating it some importance. This girl was a newly arrived Indian immigrant, which may have had some bearing on her rating.

The girls made some perceptive comment, similar to those made by Year 5, 6 and 7 girls. Some statements made by these girls were:

“Teachers never talk to us about really important things.”

“I did this programme where we were told, this is what you should be eating, but not why we should be eating it.”

One girl pointed out that although they were conscious that health education was important, it rarely touched on issues that were relevant to them. Another explained that she had once been asked to fill out a fact sheet about what she had for breakfast. This, she considered, did *“not really tell you much about what you should eat and what you shouldn’t eat. It just tells the teacher what we do eat.”* A boy also made the comment *“Sometimes these are things that you want to know more about.”*

For three of the boys it was difficult for them to focus on the actual question, although they did raise some issues which were important to them. The issues they raised had more relevance to what they wanted to learn rather than their view of the importance of the subject.

The Year 8 parents (n = 10) generally thought that health education was important. Four of them said it was very important with the remainder rating it important with the exception of one parent who only rated it some importance.

Many of the females pointed out that teachers were trained to teach health education, and for some children, school health education may be the only opportunity for them to learn about relevant health issues, particularly issues of a sex and sexual relationships. One male thought that children were more likely to live healthier lifestyles if they were interested in health from childhood, and that the teacher could foster this interest.

The most popular justification for health education at school among Year 8 parents was that of preparing children for the future as teenagers and then adulthood.

This factor was alluded to by seven of the parents. One parent wrote in the questionnaire, *“Health education is important to give a good grounding and information to hopefully take young people through life.”*

The female Year 8 teacher considered health education very important. This teacher perceived the importance of health education lay in introducing children to the social aspects of health, and in developing the whole person. Health education was seen as being an opportunity for teenagers embarking on adulthood, to deal with the issues of:

- Relationships (including personal and relationship problems).
- Peer pressure, and very often the pressures teenagers place on themselves.
- Cleanliness and personal hygiene.
- Talking to others and accessing resources.

Although this Year 8 teacher regarded health education as being very important, it was also recognised that there were difficulties because some children in this age-group preferred to have their personal issues and problems dealt with on a one-to-one basis. It was mentioned that generally within the school, teachers were prepared to talk with, and listen to, children if they had personal issues and problems. The teacher also pointed out that a great deal of incidental teaching took place in the school, where all children were constantly reminded about choices, and *“Children know that it’s all about taking responsibility for their actions and solving their own problems.”*

6.1.2 Summary of children and adults results

These results show that as children get older they are beginning to develop a more critical view about the importance of health education as a means of enabling them to make decisions about factors and behaviours which may affect their immediate and future lifestyles and well-being.

Most parents agreed that school had a large part to play in educating children about important health practices and issues. Most believed that the teacher could complement and reinforce what children had already learnt at home, and, provide

support for those children who received no such help from the home. Most believed that school was the right forum for health education and hoped that what was taught as health at school would provide their children with the skills to enable them to make the right decisions and choices regarding their health behaviours.

Teachers also rated health education as being important. There were, however, some important factors raised which seemed particularly relevant to them during a period of general curriculum upheaval and they cited the following difficulties. Lack of time; a limited understanding of the *Health and Physical Education in the New Zealand Curriculum* (1999) document; difficulty with the concept of the amalgamation of two curriculum areas; personal values and sensitivity about teaching some issues, and health as incidental rather than planned teaching.

6.1.3 Comparisons between children, parents and teachers

There were some commonalities as well as differences between the views of children and their corresponding adults.

Both children and adults considered health education to be of importance within the school curriculum. However, some points of dissension were cited by children from Years 5 to 8. They had intimated that there were still unanswered questions for them, and that what was taught as health education in school did not adequately account for what they really needed to prepare them for life. Further, children wanted to be able to question, and they were seeking answers.

Adults, particularly teachers, suggested that they focussed much of their teaching on the needs of the children. This was not recognised by the majority of children. The question arises as to what children expect and want as part of their learning, and what teachers and parents think they need. Children are at the centre of their own culture. They are more aware of the intense pressures exerted upon them by adults, other children, the media and society in general. By Year 5 most children seemed to be very aware of these influences and knew and acknowledged the pressures which were being exerted. By contrast, most adults, particularly parents, continued to view children as young innocents, and presumed to know what it was they needed by way of learning in health education.

Most parents had seen the school as providing a positive forum for the teaching of health education. They also felt that teachers could complement what had been taught in the home. The teachers, pressured by the many curriculum changes, felt that they had made an attempt to incorporate some health issues into their teaching, but acknowledged that what they were doing was still inadequate. The teacher of the younger children (Year 3) had seen the home as being the important influencing agent, whereas the teachers of older children felt that they should be able to deal with children's issues and needs. The teachers felt that health education presented opportunities to them to help prepare children for life, equipping them with necessary life skills. By contrast, many children had suggested that they would prefer to talk about health issues with people they could trust, and did not perceive school as providing this forum. A year 5 child had talked about trust, and said that it was most unlikely that they would talk about personal issues whether they were at home or at school. A Year 8 boy had, prior to giving any information, asked if what they said was in confidence, and an even younger child had said, "*You don't tell the teachers things because they talk about you in the staffroom.*" On this basis, whereas adults considered school as a positive forum for addressing health issues, the children did not. The lack of trust by the children indicated that it might be unsafe to bring up the issues they really wanted.

Some parents viewed the school as an excellent influencing agent, although some children disagreed. Many children had indicated in Theme One, that they had gained much of their information from television and other media. Of relevance to this was the point made by the child who had commented that health was boring and repetitive. This was borne out since all adults had repeatedly emphasised the need for children to learn about nutrition, exercise and hygiene, and these were, consequently, the most often taught topics across all age groups. The point made by the children here was that health was boring because it was repetitive. Teachers repeatedly gave children the same information, but never told them why. Teachers did not answer the children's real questions. Some of the more perceptive children felt that they were being left out of the bigger picture.

Both adults and children had emphasised the need for appropriateness. The commonality ended here, since what adults perceived as appropriate did not agree with what children thought. Children said that they did not want constant reminders about what not to do, but wanted to know why. An example was illustrated by a year 8 boy who wanted to know more about drugs.

Not only that it destroys your body, but how it does that. Like, when you get on a high and you don't know what you are doing. Like, when you ask the teachers, they say it makes you do stupid things, but they don't actually say how it affects your body. They just say it's bad for you, so don't bother trying it! But... there are some good drugs aren't there?

Similarly, a Year 5 boy pleaded “... and don't tell me not to smoke, teach me how to stop.”

Many children were pointing to the deficiencies in the health education they received at school. They indicated the importance of health education, but did not necessarily consider that their needs were being met. Parents, in the main, seemed confident that the school was providing vital health information for children while some of the teachers realised the limitations to providing an adequate health curriculum.

6.2 Discussion

In their research into children's and adults' views about health, Wetton and Moon (1988) suggested that there is often tension between the parties involved in planning for the health curriculum. They suggested that children may want one thing, parents another and teachers something altogether different. In this study it was found that each group had their individual expectations, and it was this that determined their rating about the importance of health education.

- Most children, particularly from Year 5 on, rated health education as important, but had expected that health education might answer their questions and respond to their needs.
- Most parents viewed health education as largely important and expected that the school would provide their children with healthy routines and messages,

particularly in the early years. They also expected health education to complement the health messages given in the home.

- Most teachers expected that health education would provide children with the necessary skills to cope with the pressures of everyday day living, but because of time constrictions, had to resort to a quick fix approach. This was similar to the findings in a study by Aggleton et al. (2000).

Children in this study had recognised the importance of health education, but pointed to the fact that their perception of it as a curriculum area was coloured by the lack of status it appeared to have against other subjects. They generally regarded health as being about food, exercise and hygiene because that was what they heard about most often. During the course of the conversations, several children intimated that they now realised that there was more to health education, and this, for them, left many questions unanswered. Some of the older children said that issues such as behaviour, social issues, mental health issues such as grief, loss and suicide were not previously recognised by them as a part of health education, because they were never spoken about at school. Some researchers, such as Aggleton et al. (2000, p. 102), have pointed to the importance of the role schools can have in providing children and young people with “relevant knowledge and skills, and encourage attitudes and behaviours that may have benefits for their future lifestyles as adults.” In providing knowledge and skills, however, it would be useful to listen to children so that contextual learning is facilitated and children’s needs addressed. As Smith (1997, p.3) points out:

While we talk a lot about what is in the best interests of the children, we often do not give children themselves much of a chance to participate in decisions in their lives. It is usually adults who decide what is in the best interests of the child. If we recognise that children have something genuinely important to say and are prepared to listen, it helps them to develop their own identity and grow into thinking, participating human beings.

McWhirter et al. (2000) in a critique of the health curriculum in England suggested that when health was seen to be helping children to deal with the many social issues, it would be more constructive within a whole school approach to health. This would enable children to work through many of the issues, and witness some of the learnt strategies in action and context.

Many parents and some of the teachers thought that health education was important to enhance the messages given in the home. Wetton and Moon (1988) and others have emphasised the same point. This raises issues of negativity and responsibility. As discussed in Theme One, children were very conscious of being told what not to do, but not why. Children heard far more negative messages about health, so that, as Hillman et al. (1990) pointed out, we are in danger of instilling fear into children, rather than promoting a positive response.

Regarding the issue of responsibility Mayall (1993) points out that in the home children are encouraged to do things for themselves whereas at school children must conform to a set of rules. Messages can also be conflicting, in that parents may emphasize the choice of certain healthy foods, and yet at school children have to eat whatever is served up as a school meal. In New Zealand many children buy their lunches from the school canteen, and the choices available often conflict with messages from home and the classroom.

Neither of the two issues already discussed suggest health education in the school is appropriate to the needs of the children. Children are our future and it is important that schools, teachers and parents get their education right, and present curriculum which is both appropriate and serves the needs of its clients – the children. Health education will have a large part to play in terms of the way children view the world and those in it. This is supported by Raphael (1998) who recognised that health education could well go beyond the curriculum and embrace the whole ethos of the school. Rather than viewing health education as a process of behavioural change, it could provide teachers with a means to involve themselves in the issues that had so much influence on children. Similarly McGregor (2002, p. 4) described how one New Zealand school had recently been working towards making health education the cornerstone of the whole curriculum, suggesting, “If we encourage a positive attitude

and marry that with values such as honesty and integrity, we're going to get more well-balanced children.”

Collins et al. (1995) in the United States of America, McWhirter et al. (2000) in England, and Rowling (1996) in Australia have pointed out the importance of health education, which has now been recognised as an essential learning area of their respective national curricula in those countries as in New Zealand. It is now essential that what is served up as health curriculum be appropriate to the needs and interests of the children.

6.3 Conclusion

This chapter summarised results of the importance given to health education at school. It has illustrated that although the majority of children and adults considered health education to be important, they held some different viewpoints about why. The key findings in this chapter point to the tensions that exist between children and adults. What children consider as appropriate to their health learning was not always shared by parents and teachers. Children felt that the importance of health education should be to answer their questions. Parents expected that healthy messages be transmitted and healthy routines encouraged. Teachers wanted to provide children with the necessary skills for everyday living but found that timetabling restrictions prevented this. This has implications for the taught curriculum and once again, points to the importance of listening to the voices of all parties who have a stake in the health curriculum in the classroom.

In the final theme participants were asked to consider what they would like included within a health education programme. These are described in the following chapter.

CHAPTER SEVEN

Interviews: Theme Three

Children's and adults' choice of learning areas for health education: Results and discussion

7.0 Introduction

This chapter provides the results, analyses and discussion about what children and adults think is important to learn about in health education. Chi square analysis was used in order to determine whether there were any significant differences in the results between older and younger children, adults with children in the younger and older classes, and between children and adults. Finally, the results are supported by qualitative data from the conversational interviews.

7.1 Results for children, parents and teachers

Table 7.1 provides the frequencies with which children mentioned the areas of learning they each considered should be included as essential learning in health education. This Table indicates all areas selected, but Chi square was only applied to those areas where the results suggested that there might be significant differences between younger (Year 3, 4, 5) and older (Year 6, 7, 8) children. These areas of learning are noted in the table by an asterisk. Other areas were not tested for statistical significance as the raw scores were too low. A level of 0.05 was chosen as the significance limit.

There were no significant differences (Chi square) between the older and younger groups of children for exercise and fitness, food and nutrition, relating to others, mental and emotional health, personal protection and disease and medical conditions. However, it was found that older children (22) were more likely than

younger children (14) to mention DAS (drugs, alcohol and smoking), a result that was statistically significant $\chi^2 = 4.77$, df 1, $p < 0.05$).

Table 7.1 Selected areas of learning by younger and older children

Major learning items	YOUNGER (n=32)				OLDER (n=31)			
	Year 3	Year 4	Year 5	Total	Year 6	Year 7	Year 8	Total
*Food and nutrition	4	1	0	5	1	5	1	7
*Exercise and fitness	10	0	0	10	2	2	3	7
*Aspects of safety	3	6	2	11	0	0	0	0
*DAS	7	6	1	14	3	8	11	22
*Mental and emotional	0	0	6	6	0	1	3	4
*Sexual health	0	0	0	0	0	8	7	15
Body and self-image	0	0	0	0	0	5	4	9
Sports injuries	0	0	1	1	0	0	0	0
Being healthy	2	0	1	3	3	0	0	3
Disease and medical	0	5	0	5	4	3	3	10
*Personal protection	2	1	0	3	0	1	0	1
*Relating with others	0	0	1	1	0	4	0	4
People you can trust	0	0	1	1	0	0	1	1
Suicide and risk	0	0	0	0	0	3	0	3
Importance of sleep	0	0	0	0	1	0	0	1
Leaving home	0	0	0	0	0	1	2	3
First Aid	0	0	0	0	0	1	2	3
Personal and oral hygiene	0	0	0	0	0	1	2	3

Key:

DAS	Drugs, alcohol and smoking
Mental and emotional	Feelings, moods and stress
Aspects of safety	Road, water, cycle, and sun safety
Disease and medical	What disease is, effects and consequences, transmission, and other medical conditions
Personal protection	Stranger danger, bullying, having a gun
Medicines and poisons	Awareness of difference between medicines and poisons, not taking medicine meant for others, finishing prescribed medicines
Relating to others	Relating to friends, family members, older people, and people with disabilities
Leaving home	Social aspects of looking after yourself after leaving home and taking responsibility for self

* = learning areas chi square tested

Table 7.2 provides a comparison of frequencies of mention in the different learning areas selected by adults with children in the younger and older age-groups. Chi square was applied to eight of the learning areas. Results for food and nutrition, DAS, mental and emotional health and making lifestyle choices showed that the

Table 7.3 provides a comparison of frequencies of mention of the major learning areas selected by adults and children. It was found that the results for exercise and fitness were not statistically significant, although more adults (25) than children (17) recognised the importance of exercise as being essential to learning about health. This was a surprising result since in the draw-and-write tasks children had indicated that having plenty of exercise was one of the major aspects to keeping them healthy. The results for learning about aspects of safety was also found not to be significant. There was very little difference between the frequencies of mention of adults (9) and children (11) about any aspects of safety.

Table 7.3 Major areas of learning by adults and children

Major learning items	YOUNGER		OLDER	
	Children (n=32)	Adults (n=28)	Children (n=31)	Adults (n=34)
*Food and nutrition	5	17	7	26
*Exercise and fitness	10	11	7	14
*Aspects of safety	11	7	0	2
*DAS	14	4	22	10
*Mental and emotional	6	10	4	17
*Sexual health	0	10	15	24
*Disease and medical	5	3	10	2
*Personal protection	3	7	1	6
Relating with others	1	4	4	2
*Personal and oral hygiene	0	21	3	15

The results for food and nutrition ($\chi^2 = 17.48$, df 1, $p < 0.001$), emotional and mental health ($\chi^2 = 7.82$, df 1, $p < 0.01$), sexual health ($\chi^2 = 7.36$, df 1, $p < 0.01$), personal protection ($\chi^2 = 4.76$, df 1, $p < 0.05$), and personal and oral hygiene ($\chi^2 = 27.92$, df 1, $p < 0.001$) were statistically significant. In these five learning areas adults were more likely than children to realise their importance to health.

The results also indicated that children were more likely to stress the importance of learning about drugs, alcohol and smoking (DAS) ($\chi^2 = 8.88$, df 1, $p =$

< 0.01) and disease and medical conditions $\chi^2 = 5.0$, df 1, $p = < 0.05$). Both results were statistically significant and gave the message that for children they were the current topical issues. Therefore, there were differences between children and adults in their choice of selected learning areas for health education. The following conversations, however, reveal why children and adults made their choices, and reveal the real educational significance.

7.1.1 Overview of children's and adults' results

The following overview takes into account the results noted in tables 7.1, 7.2 and 7.3. It was felt that the overview would be easier to understand if taken by individual learning areas mentioned by children and adults.

Food and nutrition

Adults were more likely to suggest that learning about food and nutrition should be part of health education at school and they generally supported the notion that children should be taught about the essentials of eating a balanced diet. Many children however, appeared to be more conscious of specific issues to do with the effects of some foods and their own eating habits. They referred to diet and medical conditions, and some children were concerned about diet in relation to body image and the extremes some of their peers would go to to fit in with a perceived social norm of thinness. Examples of this were explained by many children in their justifications about the issue. In the younger age-group, a girl in Year 3 explained “*We need to know why we have to eat some foods.*” Another girl followed this line of conversation suggesting that rather than being told to eat vegetables and fruits, they should also be told why, and what the effects were of eating too much of one type of food, such as sweets. A boy in Year 4 commented that they were always being told to drink water, but “*We need to know more about why we have to drink it, and what will happen if we don't.*”

In the older age-group a Year 6 girl thought that it might “*be useful to know the real effects of junk-food because of its content.*” This girl also asked “*What, and how*

much food should we actually eat?” This line of discussion ensued because the girl explained that she had a friend who had recently been diagnosed with sugar diabetes *“and that was because she ate too much junk-food.”* This also prompted another girl in the same group to add *“We should learn more about how much we should eat because some people, they have heaps of chocolate a day, and we should learn about how much of that we should have each day.”*

The girls in Year 7 did not specifically mention learning about food, but alluded to it in much the same way as the girls in Year 6. One Year 7 girl pointed out *“A lot of girls think that looking good means being skinny, so they should know about diet and anorexia. And, we need to know the consequences of dieting to be thin.”* All five of the Year 7 girls agreed that learning how to look and feel good should be an important element of health education. These girls had also made the link between how they felt and the need to balance their food intake, and it was something they thought could be addressed in health education.

By Year 8 many of the girls brought up issues about nutrition, suggesting that *“It is important to not only learn about what we should be eating, but why we should be eating it.”*

During each of the group discussions, irrespective of age-group, it was mainly girls who raised the issue of nutrition and diet.

The parents, as mentioned previously, generally focussed on children learning the basics of healthy nutrition with the following typical comments from parents with children in the younger age-groups:

Year 3 (m) *Although children know about food, they also need to know what it means to have a healthy diet.*

Year 4 (f) *Children should learn the basics of nutrition.*

Year 5 (f) *Diet is a key factor in attaining and maintaining good health.*

Parents of older children thought it essential that they learn about healthy eating practices and diet. A Year 6 parent (f) came very close to matching what children had been saying when she commented:

I think that when you get to Year 6 level, kids are after something different. To start off with, you learn about a healthy body, eating good foods and the importance of regular exercise. They're not interested in that any more. They've branched off from that and they're interested in the implications of not having good food and what it actually does to your body.

Generally, both teachers and parents were consistent about what children ought to be learning about nutrition education. The teachers of Years 4, 5, 6 and 8 children explained that children generally needed to learn the basics of healthy nutrition. The teacher of younger children (Year 4) thought that children required constant reminders about what they should be eating. The teachers of older children all agreed that the emphasis should be on children being made aware of having and maintaining a balanced diet.

Exercise and fitness

A minority of children and adults mentioned the need to learn about some of the various aspects of exercise and fitness. The differences were not statistically significant between adults and children, nor between older and younger children.

Younger children, particularly the girls in Year 3 wanted to know more about the importance of swimming whereas some of the boys simply named the sports they were interested in. An interest in the importance of swimming by the girls may have been connected to the on-going fund raising activities to build a swimming pool at the school. Many of the younger children did not seem to differentiate between exercise and playing games for fun.

By Year 6, the older boys wanted more physical education and sport and some of the Year 7 boys had begun to link exercise with the need to warm-up properly before they played sport. One boy in particular was concerned that everyone should be aware of the consequences of not stretching and warming-up adequately.

In Year 8, both girls and boys recognised the importance of exercise as being the way of retaining their body size and shape. One girl made the point "*We should*

be doing programmes that help us keep in shape” and a boy said “We need to be aware of the consequences of being overweight, and do heaps of exercise.”

Parents offered no real justification other than to say that exercise was important and that children should be made aware of the basics of exercise and fitness. One Year 3 parent did make the point *“We are often aware of it, but don’t do enough of it.”*

The teachers of younger children observed that physical health was of importance and should be a regular feature of children’s learning (Year 3) and that children should know the reasons for exercise in relation to good health (Years 4 and 5).

With the exception of some of the older children who had made links between exercise and body shape and weight, most adults simply wanted children to have regular exercise at school as part of their physical education programme.

Aspects of Safety

This proved to be the most diverse of all items mentioned as essential learning in health education. The results in Table 7.1 indicate that only younger children mentioned aspects of safety.

Some factors mentioned by older children may have been placed in this learning area, but the subsequent conversations with the children indicated that they were mentioning the factors for reasons other than safety. While some younger children occasionally referred to road, cycle, pool and sun safety, many older children mentioned aspects which were more complex. Some children in Years 7 and 8 wanted to know about safe-sex, which is discussed under the umbrella of sexual education. Similarly, such issues as knowing what to do when someone drinks poison was linked to first aid; wanting to learn about how germs were caught and spread, was placed under the umbrella of disease and medical conditions, and the consequences of taking medication which was not their own was placed under medicines and poisons. A girl in Year 5 wanted to know about taking care of the senses and a girl in Year 7 thought that they should learn first aid. As the girl explained, *“We might have to deal with emergencies at home or with elderly people.”*

Many of these issues were not really discussed by the larger group but emerged as isolated statements by individuals.

Some of the younger children expressed an interest in learning about pool safety (girls), while some of the boys in Year 3 and girls in Year 5 were interested in learning how they could stand up for themselves, particularly against children who might be bullies.

All of the boys in Year 4 (n = 6) thought that they would like to learn more about stranger danger. No real justification was given, although when asked, one boy quickly countered “*Can I draw a picture now? I’m going to draw a picture of not talking to strangers.*” A recent occurrence of a child being stopped on the way to school by a stranger, may well have triggered this response.

Two boys, one in Year 3 and another older boy in Year 7 made isolated mentions of wanting to learn about having a gun for personal protection. While the older boy pointed to the dangers of firearms, the younger of the two believed that he, personally, needed a gun with which he could protect himself.

The difference between adults’ and children’s frequency of mentions of aspects of safety was not statistically significant. Nine adults mentioned various aspects of safety. Three parents with children in the younger age-group thought that road safety should be taught. One of them pointed out that “*As [children] start walking to school they need to cross roads.*” Most of the female parents implied that personal safety meant learning about road, water and sun safety, disease and the transmission of germs, while some male parents (Year 3 and 5) specifically wanted their children to learn about stranger danger and safe touching.

Year 3 (m): *The stranger danger one, as a dad, worries me because you are very protective of your daughters and sons.*

Year 5(m): *Stranger danger should be taught at a younger age, probably kindergarten, but... I don’t want my child to be frightened to say hello to you. But I do want them to know the right touch and the right words.*

Three teachers (Year 4, 5 and 7) also linked safety to the *Keeping Ourselves Safe* (KOS) programme, which has been mentioned earlier, and is largely concerned with recognising stranger danger and abuse. This they believed should continue to be a regularly taught programme in the school.

The results indicate that children and adults all had their individual agendas for having safety education taught, while children appeared to have more ideas about safety than adults did. Children included engaging in risky activity during their daily activity and when relating to others, while parents focussed on road, cycle and sun safety and stranger danger only.

Drugs, alcohol and smoking

As reported earlier, drugs, alcohol and smoking (DAS) as an area of learning yielded a significant difference between older children and younger children. More adults with children in the older group (10) also considered that aspects of DAS should be taught, although the result was not statistically significant. The difference between all adults and all children (Table 7.3) was found to be statistically significant (0.05). A greater number of children (36) mentioned their desire to learn about DAS as opposed to adults (14). The difference between adults and children was probably the result of children having a personal involvement with DAS in their daily lives, knowing peers and family members who were involved in some form of DAS habit, and the high profile DAS receives through all forms of media to which children have access. This is discussed later.

All of the girls in Year 3 had at least one question about DAS. One girl said “*We want to know why people take drugs.*” Others asked “*Why smoking was bad for you?*” and “*Why do dads smoke?*” The Year 3 boys simply asked that smoking and drinking be added to the list of things to learn about.

By Year 4 many boys had specific questions, such as how much alcohol could they drink, whether it was safe for teenagers to drink alcohol and could they learn how to say ‘no’ to drugs. Three boys commented that they needed to know how to avoid those people who might force them to take drugs. One boy in Year 5 talked about learning how to stop smoking.

Many of the conversations of the older children went beyond alcohol and smoking. A Year 6 girl made the point *“You shouldn’t take drugs unless they help you, such as medical drugs. We need to know this.”* This girl had worked out the distinction between recreational and medicinal drugs. Another girl believed that it was important for them to learn about the many consequences of drinking-and-driving. Another general comment was that they should learn about the reasons for, and the ways in which cigarettes could affect the lungs. One girl explained *“We need to know why people who make smokes put all that yukky stuff, like tar, in smokes and then sell them.”* This led to an intense debate about the ethics of those cigarette companies who promoted smoking and sold a product that had the potential to do so much damage. One of the findings with the Year 6 girls was that most of them were concerned with the effects, the consequences and the responsible choices they ought to make. One of the girls summed up the feelings of the group pointing out *“People are always saying that you shouldn’t drink, and we shouldn’t smoke and everything. But, we should know what it does to us.”*

DAS was commented on by both girls and boys in Year 7. One girl thought they should learn assertive strategies in order that they might deal with the pressure to take drugs. During their conversations some girls explained that because drug education was taught at school on alternate years and it was easy for some children to miss out. Another girl further emphasised the point that drug education should be taught on a regular and on-going basis. One of the boys pointed to an important safety issue commenting *“I reckon that drinking and drugs are the most important, because if you use a dirty needle that might affect you.”* This was the first mention of the hard street drugs, which had been depicted in many of the children’s pictures in the d-w tasks. Up until this point most of the children’s conversations had focussed on drinking and smoking. However the hard street drug issue was continued by some of the Year 8 children, particularly the boys. The Year 8 girls drew attention to another perspective which has been previously discussed, of drugs being sold to teenagers which resembled the real thing. All of these girls felt that these issues should be discussed in health education rather than them always learning about adult drugs. They also suggested that they should learn how to recognise different drugs such as

Marijuana and Ecstasy, because they were aware that they would be pressured into taking these drugs when they started at high school the following year.

Many of the Year 8 boys talked about the same issues as the girls, but they also said that they ought to learn about the different effects drugs and other chemicals could have on the body.

Some parents also thought that DAS should be taught at school, but they did not place nearly as much emphasis on the issue as the children had done. Parents with younger children felt that they should learn to make positive lifestyle choices about smoking and drinking. Two parents of older children (Year 6) mentioned that children should learn about the negative effects of smoking and drug habits, and some parents with children in Year 7 and Year 8 considered drug education to be the *“biggest thing at this age.”*

The teachers of the younger children did not even mention DAS. It was not until Year 5 that the teacher felt education about DAS was important. This teacher thought that the periodic teaching of programmes like *DARE* should be supported by on-going curriculum programmes in the classroom as a regular part of health education. There was no mention of DAS by the Year 6 teacher, but the teachers of Years 7 and 8 children recognised the need for a comprehensive DAS programme. The Year 8 teacher also recognised that children needed to practice strategies which would enable them to make more positive choices about any involvement with drugs.

To summarise, many children seemed to place an emphasis on the various topical issues about drugs which were part of their personal life experience, and some children and parents thought that intervention programmes should be taught. Teachers, however continued to support preventative programmes for the older children, with no importance placed on DAS at the younger level. According to the Year 3 teacher DAS was not really perceived as being relevant to the young child's life experience.

Sexual health

There was a statistically significant difference at the 0.05 level between children and adults, with more adults (34) having the expectation that children (15) should learn about various aspects of sexual health.

Some adults with children in the younger classes wanted them to learn about the changes that would gradually occur in the body. Three female parents (Year 3) mentioned learning about the changing body while one male and one female commented on the importance of young children knowing about the private regions of their bodies in relation appropriate and inappropriate touching. None of the children in Year 3 had mentioned any aspect of sexual health or stranger danger at all.

One parent of a Year 4 child mentioned the changing body and the need for children to learn that "*It is supposed to happen.*" This parent felt that children in Year 4 should be prepared for their adolescent years during health education at school. The teacher explained that children should learn to care for their bodies, but also felt it important to learn about peer relationships. By contrast, children in Year 4 generally appeared completely unconcerned about sexual education.

Like the Year 4 children, those in Year 5 did not mention any aspect of sexual education. However, adults concerned with Year 5 children did. Almost half of the parents thought that learning about bodily change, sexuality and sex education should definitely be taught. These parents also believed that aspects of emotional health and keeping themselves safe should be a vital component of any health education programme for their children. The teacher was not quite so supportive of what the parents were saying but did think that the *KOS* programme should be continued.

Children in Year 6 made no mention of relationships or sex education, but their parents did. Four female parents thought that their children should be learning about pubertal change and general sex education. There was a differing of opinion among some female parents, with three of them questioning the place of sex education at the Year 6 level. The teacher, however, believed that pubertal change and other aspects of physical and emotional change were appropriate for children in Year 6.

By Year 7 a very different picture was emerging. In Year 7, eight children (n = 10), and in Year 8, eight children (n = 11) wanted to know about what really

happened to the body during puberty, about periods and hygiene, safe-sex, teenage pregnancy and about HIV and Aids.

The girls in Year 7 wanted to discuss the issue of relationships, some of which were sexual, such as the different types of relationships within families. One girl thought that they should learn *“the difference between casual affairs and flings.”* Three boys engaged in a heated debate about safe-sex, the consequences of having unprotected sex and the issue of teenage pregnancy. When asked what they knew about sexual matters the following conversation ensued.

Boy 1: *My mum started it, but she hasn't told me everything yet, not about safe- sex...*

Boy 2: *But you don't want to learn about that at primary school.*

Boy 1: *You could because you don't want twelve year olds screwing.*

Boy 3: *But twelve year olds can have babies.*

Boy 2: *That's stupid. Why do they want to fall pregnant at twelve years of age?*

Boy 3: *Just by warning them that there could be an accident and things like that.*

Boy 2: *If you do, then you will have to leave school, and when you grow up you will have no education.*

One girl (Year 8), supported by her peers, commented *“We need to know that it is alright to ask questions,”* while two boys felt that *“We need to learn about protection and safe-sex.”* Another boy raised the issue of sexual orientation and the embarrassment of being gay.

The adults of these children also wanted them to learn about male and female sexual behaviour, HIV and Aids and other sexual matters. Five of the Year 7 (n = 8) parents felt that it was important for children to learn about the wider aspect of puberty and sexual behaviour. During the interview two parents suggested that children should also learn to relate to one another and respect other people's ideas and feelings. Others, particularly those parents who had responded to the questionnaire, felt that children should be learning about menstruation, the use of tampons, safe-sex, condoms for boys and sexually transmitted infections. One parent also thought that Year 7 children should be learning parenting skills.

The teachers (Year 7 and 8) both agreed that sexual health was important and the Year 7 teacher gave the following reasons.

It's what they are starting to learn, and unfortunately, for some of them, it's what they are seeing all around amongst their peers, on video and television. It's better for them to know about it and then make their choice. I don't think that we can turn away from it, and I certainly wouldn't want to. I don't think it's something we teach at this stage, but it's something we have to teach I think.

These results showed that adults generally were more concerned than children about teaching sexual health at the younger age level. The reasons for this may well be found in the number of parents who also believed that stranger danger programmes should be taught to young children so that they were aware of inappropriate behaviour from older peers and other adults. By the time children reached Year 7, all groups, children and adults appeared to have been more in accord. It does however need to be recognised that not all children in the older classes were as sexually mature as some of their peers.

Emotional and mental health

The subject of emotions, including feelings, and mental health were another area of learning thought to be important by parents in particular. Table 7.3 illustrated the differences between children and adults, and showed that many more adults (27) than children (10) thought that learning in this areas was important, a difference that was statistically significant.

The subject was not mentioned by children until Year 5, and then, only by one girl. However, three boys in Year 5 did suggest that they might like to learn how they could prevent being aggressive and using aggressive behaviour, particularly during sporting activity. This may well have been triggered by recent television advertisements showing the down-side of aggression being used on the sports field. It was also quite noticeable that, whereas some of the boys had associated feelings with aggressive behaviour, the girls were more likely to emphasise personal feelings such as happiness and sadness, and dealing with loss within the immediate family.

Several of the older girls (Year 6) intimated that they needed to know about various diseases and medical conditions, and this they linked to emotional feelings. One girl commented *“There are children in the classroom who have them, and we need to know how we should treat them or react to them.”* Similarly, some of the Year 7 girls thought it would be useful to learn about disease and dying, because *“We might have to deal with it in the family.”*

By contrast, many adults with both younger and older children, raised a range of issues dealing with feelings and relationships, and emotional and mental health. Learning about morals and values was also linked to feelings by a Year 3 parent, who said that she wanted her child to learn about health because *“It’s all about well-being and feeling good about yourself, and being happy with who you are. Talking things through with people, and knowing the rights and wrongs in your society.”*

Several Year 5 and 6 parents mentioned mental and emotional health, and some Year 7 parents made the link between the age of the child to the onset of feelings, emotions and mood swings. One of them commented *“Children are moving into puberty at this age and are so sensitive and easily hurt.”* Three Year 7 parents thought that children should learn about relating and listening to each other and respecting their own, and others’ bodies. One pointed out *“It is important that children know how to relate to one another and feel good about doing that, and to respect someone else’s ideas and feelings.”*

The Year 3 teacher talked about the need for children to learn how to be a good friend, and about compromise and loyalty, because it was felt that young children were constantly falling out with each other and getting into conflict situations. The teacher explained:

I just put down things like forming relationships with others, settling conflicts. That’s a biggie. How do you deal with conflict situations, because, at this age life seems to be one big round of little conflicts of varying degrees. If you are lucky you get through the day with very minor conflicts like “I’m not playing with you at lunchtime” to “he’s got my pencil” and “you picked up my rubber off the floor” and it’s just a constantly on-going round of conflict. So, how do you deal with those, it’s all to do with feelings isn’t it?

The Year 4 teacher also wanted to include feelings as an area of learning, because she explained *“At Year 4 level it’s a time when friendship niggles start to happen. You’ve got jealousy, and his friend and her friend, and you’re not going to be my friend.”* Conflicts were also identified as being dependent on situations occurring on a day-to-day basis. As the teacher pointed out *“You’ve got to be able to give children the skills to be able to cope with that, so that they don’t get put down.”* This teacher was also aware that there were often children in the class who might be experiencing hurt and insecurity because of disharmony at home, and explained that it was often necessary to remind other children to show more consideration towards their peers. There were many issues surfacing at any given time, such as children who did, or did not, wear the appropriate designer-labelled clothing to school. For example the teacher said *“I’ve already had a little girl this year not wanting to come to school because her clothes were not up to scratch. So, it’s important to teach children about feeling good, self-esteem and coping with put-downs and hurt.”*

The Year 6 and Year 7 teachers also wanted children to learn about respecting one another and considering individual needs. It was felt that health education was the ideal forum for this, as well as to instil in children some self-worth and self-respect. Similarly, the Year 8 teacher felt that there were always going to be incidental issues to deal with, and these were often an unknown quantity until they actually happened. These, the teacher explained, were sometimes dealt with on a one-to-one basis, or alternatively, might result in a series of class sessions.

In summary, although adults seemed more likely than children to include feelings and emotions as an area of essential learning in health education, it was more likely that some issues would be addressed as they happened rather than as an on-going taught programme. Of note was that adults, particularly teachers, seemed to want to deal with feelings between children and their peers whereas the children were more likely to mention feelings in relation to the family and wider social group. Children also raised feelings in relation to illness, grief and loss, something not mentioned by adults.

Personal and oral hygiene

Just over half (n = 35) the total number of adults (62) involved in the research believed that basic hygiene habits ought to be taught at school. Of note was that during the general conversation with all age-groups of children, not one of them mentioned any aspect of hygiene or oral health at all even though the issue was continually referred to in the draw-and-write tasks. In their conversations children appeared to indicate that hygiene was something they had to do as a part of daily living, and was viewed as a daily chore rather than having much to do with health. This aspect of learning is not discussed here as the results clearly showed that adults were more likely than children to mention the subject. When personal hygiene came up in adult conversations it was only to reiterate that children needed to learn the basics.

7.1.2 Other learning areas

The list of items which children and adults included as essential learning in health education went beyond the seven areas already discussed. Further areas of learning are noted in Tables 7.1 and 7.2.

Many of these areas of learning were incidental mentions by a few or individual children and adults. Of particular note were those mentioned by one group and not the other. For example, eight adults, one representing younger children and seven representing older children thought that they should learn about making lifestyle choices. Children did not specifically mention lifestyle choices by name, but certainly implied it when they said that they should learn to say 'no' to taking drugs. The implication is that some children had considered the aspect of lifestyle choice and decision making in their conversations and selection of learning areas. Many adults who had listed lifestyle choices referred to making healthy food choices and making the right choice regarding drugs, alcohol and smoking. Similarly, when children mentioned the need to learn about various factors, such as alternative versus conventional medicine, they too could have been implying that they had a choice about certain behaviours and practices.

There were isolated references by some adults to the need for children to learn about the more topical health issues affecting their communities and age-groups. Children too, had implied that they should learn about issues such as meningitis, medical conditions and suicide. These issues were topical for children, but were rarely recognised by adults.

Whereas many of the learning areas were incidentally mentioned by adults, some children went into great detail. The only girl who mentioned the need to learn about alternative health practices described her reasons for this by citing a personal experience. *“The doctor said it would take six weeks to get the virus out of my body. My mum took me to the Health 2000 shop and they gave me antibodies, and it was out of my system in two weeks.”* Once mentioned, several other girls in the same group became engrossed in the topic, agreeing that they really ought to learn all about different medical practices, so that they could make their own choice.

One boy in Year 7 raised the issue of suicide when others in the group were having a conversation about dealing with personal problems. A conversation between two of the boys developed along the following lines:

Boy 1: *I think that learning about suicide is important...*

Boy 2: *If you feel like that you should go and see someone about solving things...*

Boy 1: *Because if you commit suicide you don't know what is going to happen to your family afterwards. Like, they might break-up or something like that, and I couldn't do that stuff.*

Again, many issues were inherent in this conversation that were not included in the overall results. For instance, Boy 2, who had interrupted during the previous conversation, talked about feelings and seeking the help of external agencies. The boy who had initiated the conversation had considered relationships and other family members, referring to the experience of emotional trauma. Another boy in the same group believed that stress was a factor, and he believed that they should all learn the correct techniques for relieving emotional tension.

From Year 4, many children, particularly girls, wanted to learn more about various diseases and medical conditions. This was mentioned previously in relation to eating habits and the incidence of diabetes. However, in this case, five girls thought that they should learn more about *“what all those other diseases are and what happens to you if you get them, and how you get them”*(Year 4). These five Year 4 children talked about the transmission of germs, sharing drink-bottles and bodily fluids. Other discussions about disease and medical conditions included learning about class-mates who may be on Ritalin for hyper-activity (Year 6), asthma (Year 5) and meningitis (Year 4 and 7). Another Year 7 girl wanted to know about cancer, and explained, *“We need to learn about diseases like cancer because we might have to deal with it within the family.”*

Relating to others was another factor which received attention from some children (5) and some adults (6). Several parents and teachers had suggested that children needed to learn to get along with each other. When children mentioned relating to others the emphasis was quite different. Linked to the previous discussion about disease, two girls in Year 7 felt that they should learn more about different medical conditions so that they might be of assistance if it was required. One of the girls included HIV and Aids, pointing out that they should learn the truth about the condition and how it was contracted, so that the many misconceptions could be righted and they would not be so afraid if they were around those who might be affected.

When relating to others was mentioned by some boys, it tended to be about aggression and violence. One boy in Year 6 suddenly made the suggestion, *“You need plenty of sleep, otherwise you will get bad tempered.”* This boy had made the link between tiredness and irritability which could also affect his relationships with others.

Personal protection and the need to own a gun was introduced by a boy in Year 3 and another in Year 7. The younger boy explained *“We need to know how to protect ourselves, so we need to have a gun.”* The older boy also considered it important to learn how to protect themselves, but he had further recognised the

dangers of owning a gun, and believed they should learn about firearms safety at school. This issue will be considered again in the discussion section.

7.1.3 Summary of the results

The results show a variety of health issues were nominated by participants that they thought should be learnt in health education. In the results there were both differences and similarities in the learning areas nominated by children and adults. Where these similarities did occur, it seemed more likely to have been in the identification of the learning area name rather than in the content of the learning area.

As was found with the previous themes, the gradual development in perception and knowledge could be seen in both children's and adults' nomination of learning areas. The emerging pattern was that many younger children and adults with younger children were more concerned about basic health messages and routines, whereas older children were wanting to learn about issues which affected their lives and their futures. Some adults with children in Years 7 and 8 wanted them to be educated about the consequences and effects of some of the activities in which young adolescents might engage or be pressured into.

Many of the older children had started to look at health education from a need-to-know perspective. They were beginning to look at the effects and consequences of certain behaviours and they felt that they should be learning far more, and be able to discuss relevant arguments about the reasons for fitness and exercise, and the consequences for their health, rather than merely being told to do it.

The results did not necessarily reflect that parents were thinking beyond the mere transmission of basic health messages, although there were some who did recognise that there were children who wanted far more than was traditionally taught as health education at school. Some of the older children and their parents were beginning to recognise that there were issues relevant to health that were topical and important to the individual and it was important to draw these into the learning domain. Teachers were still a little hesitant to deviate far from what they viewed as the safe areas of health education, and those which they themselves felt most comfortable teaching. The key areas of the health curriculum are food and nutrition,

sexuality education, body care and physical safety and mental health, and it was quite noticeable that most of the teachers preferred areas of learning and teaching which could be located in three of these areas. Sexuality education was the one area about which these teachers seemed most hesitant.

A comment was made by one of the teachers about the different emphasis children placed on their health learning when talking to the researcher as opposed to the messages heard by the teacher in the classroom. When asked why children might have given the researcher a different response to that given to them, the Year 4 teacher replied *“Because their behaviour might not actually reflect what they think is necessary to them. They might think that smoking, drugs and alcohol are a priority, but 70% our problems are relationships.”*

Many of the older children, particularly girls, had become quite critical about the content of their present health lessons at school. This had also emerged in Theme One. Several of the girls suggested that teachers needed to talk to them and find out what it was that they wanted to know about, so that learning could be made more appropriate. For many children in Years 5, 6, 7 and 8 there seemed to be a realisation that their health behaviours could affect others as well as themselves, and they wanted real information and answers to their many questions. Some children in Years 7 and 8 were beginning to develop a critical perspective about health and social issues, and were disappointed that health education at school did not adequately address their interests. This feeling among some children had also surfaced in the previous two themes.

Adults generally acknowledged the need for on-going health education in school although the views of the small group of parents in the sample, may not necessarily have represented the views of all of the parents of the 63 children in the sample. The results had a bias towards the views of mothers, comprising 46 respondents. For the fathers ($n = 10$) who did respond, many viewed health education as the place where their children, particularly daughters, could learn how to protect themselves from danger. It could be argued that parents who attended the interviews were those who had an interest in health and the health education of their children, but there is no evidence that this was the case. It also has to be recognised that there

may be parents who do not necessarily believe in health education as an essential learning area in the school curriculum.

7.2 Discussion

Treseder (1996) made the point that when there was a lack of consultation by adults with children about aspects of their life that mattered to them, the result was usually that adults' concerns and agendas determined what was important to children. That is, the adults decided on behalf of children. This was partly the case in this study. In the next section the findings will be discussed in relation to several major issues. The first issue was identified in the literature reviewed in Chapter Two. The next four were derived from the conversations, even though they may also be found in the literature. The final issue was derived from the research question about adults' openness to possible change. Thus these six issues were central to an analysis of adults' and children's views.

- Understanding and talking with children.
- Negating children's views - adult agendas.
- Values and teaching choice – teachers' comfort zones.
- Children reacting to violence.
- Safety.
- Adults' openness to possible change

Understanding and talking with children

The results outlined in this chapter indicate that children do, indeed, have their own views about what they need to learn in health education. There is evidence that children have the capacity to hold and express their views. Researchers such as Borup (2000), Rudd and Walsh (1993), and Rutter (1985) have indicated that a positive school environment that addresses the needs of its pupils and encourages them to share in the decision making is more likely to influence their health status, and also the health status of the school, both immediately and in the future. The Health Promoting School movement which originated during the 1980s, spearheaded

by the World Health Organisation (WHO), is emphasising the same message in an effort to bring about an improvement in people's health (Ministry of Health, 2001). One of the guiding principles of the health promoting school originated from the 1986 *Ottawa Charter for Health Promotion* which specified that health promotion would be more effective when supported by a positive social and physical environment. The school was seen as an ideal health promoting setting. Its success however, will only be realised when partnerships are formed with all of those involved in the school setting. This includes children, and their being able to see that the school is a safe place where their questions will be answered and their problems addressed.

Although it was the intention of all six teachers in this study to create such a safe environment for the children, as described above, realistically it was very difficult. These teachers argued that the general physical environment supports children with sun safe areas, messages and reminders about hygiene, open airy classrooms and encouragement in physical activity. They also said the social environment encourages positive and friendly interaction between children and adults, and children are encouraged to talk to teachers, and in turn, teachers talk with children. Peer mediation is also in operation in the school. The public health nurse was available to children at regular intervals.

These teacher views did not always match the views of the children. Many children, in their selected learning areas and through conversation, revealed that they felt their needs were not really being met. Their comments have alluded to health being repetitive, boring, not answering questions, and telling rather than asking, pointed to the dissatisfaction being experienced by many children.

There were other concerns for children, too. Some children indicated that they wanted to learn about people they could trust, and with whom they could talk. They did not view the teacher in that category of trust. In fact, one girl in Year 5 intimated that although teachers may listen to them, they often took it back to the staffroom. A Year 6 girl even made the point that there were many people whom you could not trust with personal problems, and that animals were the best listeners because "*You can tell them your problems and they can't tell anyone else.*" In a study in

England, Dines (1996) had asked teenagers who they were likely to talk to about confidential matters, and why. It was found that teenagers chose not to talk to teachers for fear of reprisal. These teenagers had also pointed out that teachers could not be entrusted not to discuss things said in confidence with other colleagues in the staffroom.

Many children from Year 5 on were beginning to look at health education on a “need-to-know basis”, and felt that health education at school merely told them what not to do, but seldom told them why. They did not want to be continually learning about basic health routines, which parents and teachers perceived as important, but wanted to address issues which were relevant to them and their lives. Kalnins, McQueen, Backett, Curtice, and Currie (1992) point out that if we want to fully appreciate the way in which children learn about health then there is a need for teachers to enter into and understand how children interpret their world. This present study has revealed the importance of listening to and observing children, and in learning from this, to put health learning and teaching into a more meaningful context.

Negating children's views – adult agendas

The findings in this chapter show that adults may hold erroneous views about what children knew about health education. There was surprise at what the children sometimes knew, and wanted to know; and there was evidence that adults were prepared to change their views about what children should learn about in health education lessons. Teachers, too, seemed willing to alter their teaching because of what children were saying. This is discussed in more detail later.

It has been suggested by Scott (2000, p.106), “There is a seeming reluctance to take children's responses at face value, perhaps because children's opinions are seen as especially pliable and susceptible to suggestion.” In this study it was found that often the parent or teacher would express surprise about things that children had said, or would suggest that the child was only expressing an interest in an issue because of its high profile in the media. Such was the case with Year 3 children who wanted questions answered about alcohol, smoking and drugs. The parents were dismayed

that children of seven years should be wanting to learn about these issues. One Year 3 parent said, *"I can't believe smoking came up."* The Year 4 teacher said that although the children wanted to know more about alcohol and the quantities that were safe to drink, the teacher said, *"Drink-and-drive. Probably not, because I don't think drinking and driving is intrinsic to an eight year old."* Most parents and teachers were aware that drinking-and-driving was a high profile issue, and identified television campaigns as the reason for children talking about them. However, while this small group of adults may have protected their children from drugs, alcohol and smoking (DAS), for some children in their classes, association with DAS in the home, on the streets, and among their peers, was a common occurrence. The fact that children are talking about DAS should not be ignored or given such little value.

The same was true of meningitis. Some children from Year 4 and beyond, mentioned that they wanted to know about different diseases, viruses and conditions. Most mentioned was the meningitis virus. The Year 4 teacher said that although she would have no hesitation in addressing the subject of meningitis if that was what the children wanted, she thought, *"I don't think that it is intrinsic to eight-year-olds. It's come about because on television one night, there's been a programme about a little girl who died of meningitis."* Many children had said that they wanted to know how viruses were spread, what might be the effects for them, and how could it be prevented. The message is very clear and real. Children were aware that there were viruses which could be caught by them and they wanted to know more about them. Do we avoid addressing these concerns simply because we believe that for children they are not real? One teacher said that children were only bringing up issues because someone else had put it into their heads:

They are coming from the children, but they are only coming from the children because somebody is putting them there. Now if one of these children had a little brother or sister, or cousin, or best friend who had meningitis, and had gone to hospital and been very sick, or who had died, then that would be intrinsic to that child. That would be a right to know what is meningitis. Because this thing, whatever it is, has touched me. But the children in my class at the moment, those things aren't really touching them.

The Year 3 teacher had this thought:

For some children there is some knowledge that they don't need at that age. There's no reason for them to know it. But later on there are reasons for them to know. I think that's a hard thing as adults, picking the right time and the right moment. And, what is right for one child is not necessarily, I mean, one child is not going to be able to handle it. I remember I had a seven-year-old in my class who knew all about reproduction, but she had the maturity to handle it. It was the facts, Mum had told her, and it was no big deal. Whereas I know other children, armed with that knowledge would just be socially inappropriate with the knowledge, wouldn't know how to handle it, and it would be more detrimental to them.

Knowing what is genuine and what is just passing curiosity poses a real challenge to teachers as health educators. It also raises the question of values.

Values and teaching choice – teachers' comfort zones

When talking about content for the health curriculum one cannot escape the subject of values and the findings in this study were that adults may have had one set of values and the children another. Doxiadis and Garanis (1990, p. 118) pointed out “health education can never be value free, for health itself is not value free.” Teachers of social studies would argue that values education does not set out to instil any particular set of values or beliefs, but that it helps children to develop their own set of values (Massialas & Hurst, 1978). Health does tend to be contradictory. As teachers we state that we will teach, free from any bias, and yet in health education, we are attempting to encourage children to change their behaviours and adopt positive attitudes and practices to attain healthier lifestyles. Downie and Fyfe (1990) also argue that teachers of health education are obliged to take a moral stance because they are teaching children why certain health behaviours are better than others. Certainly health education has the potential to be values laden, particularly as described previously, when the teacher makes the decision as to what children should be learning, and when. Decisions not to address children's questions and concerns, nor to incorporate issues because it is considered inappropriate are not really taking into account children's views, nor listening to, and valuing their input.

In this study, it was clear that teachers' comfort zones were also linked to values. One teacher specifically stated that any real depth in sexual education was avoided because as teachers, they needed to protect themselves from community criticism. Several of the teachers expressed concerns that suggested that any real depth in sex education was generally avoided because of the fear of incurring the wrath of parents and the school Board of Trustees. One explained their position:

When we did pubertal change earlier this year, when it came to the kids asking about physical sex, we just had to redirect the question. We didn't answer it. I feel reasonably comfortable getting into it, but where do you stop, and are you going to end up with parents coming to you, or the Board of Trustees, or whoever it might be. And yet it was questions that the kids wanted to ask. We are protecting ourselves. It might not be right but it's the truth.

Sieg (2003) also found in her research that teachers talked about personal comfort zones when expected to teach sex education. Many parents in this study wanted and expected sexual education to be taught. This covered aspects from basic body changes (in Year 3) to safe-sex, learning about sexually transmitted infections, teenage pregnancy and parenting skills at the Year 8 level. The children wanted more in-depth education about sexual matters from Year 7 onwards. It was commented on, by some teachers, that they needed to feel comfortable when teaching sexual education, and that generally sex education was confined to education about pubertal change, and even then, responsibility was given to a health professional from outside of the school. This raises another issue, that of packaging health into boxes, to be opened for a short period, once a year.

Comfort zones also apply to the comment made by children when referring to health as boring. Teachers will only teach that with which they are familiar, and that which is reasonably easy to teach. Anything else is put into the "too hard basket". As a consequence, food, hygiene and exercise are what are commonly taught, and this is what children think health is all about. This was clearly illustrated by the children in their drawings when asked to define what they knew about health. They filled their papers with illustrations of food, exercise and sports and hygiene practices. Rarely

did children draw pictures depicting situations of risk, safety, violence and other mental health matters.

Children reacting to violence

Violence in schools represents a serious health problem according to a study by Young, Autry, Lee, Messemer, Roach, and Smit (2002). In this study, although violence in New Zealand schools is not as prevalent as in the United States, children quite often alluded to being increasingly subjected to acts of aggression. Bullying is of major concern, and yet parents seldom mentioned it as an area of learning. Some children did recognise bullying and violence as being a potential threat to them. Some boys in Year 4 wanted to learn self defence, and in Year 5, boys wanted to learn how to deal more effectively with aggression, and how to react to those who bullied them. Teachers in Years 3, 6 and 7 also thought that children should learn the skills of mediation and ways to deal with conflict.

Violence went beyond bullying and aggression for two boys who stated that they wanted to learn about guns, and how to protect themselves. This may have been prompted by the media reporting of the school shootings in the United States, and their perception that it might conceivably happen in New Zealand. Young et al. reported that children needed to feel safe at school, and yet, as a learning area safety at school was not mentioned by any of the adults. Children witness aggression on the sports field, on the roads, in the home, and on television, video and film. Year 5 boys recognised this, and wanted to learn appropriate strategies to deal with it. A seven-year-old, when talking about the need to have a gun for protection, thought that he should treat violence with further violence. A careful and positive approach needs to be taken by teachers, for there is a very real likelihood that children who grow up experiencing violence may well resort to violence themselves. Gumpel and Meadan (2000) claim that as schools become more and more places for aggression and violence they may be creating more aggressive and violent youth. As a result more children are reacting to violence with yet further violence.

Safety

Stranger danger was very rarely mentioned by the children in this study, but it was a prominent area of learning for some parents, particularly fathers. Year 3, 5, 6 and 8 parents and the Year 4 teacher all expressed their desire to have their children made aware of stranger danger. Treseder (1996) indicated that in the instance of protection from strangers it was more of an adult concern than the concern of the child. Interestingly, in this present study, it was found that fathers were more concerned about stranger danger than mothers. Concerns over children learning about safety on the roads, water, countryside, in the home, or in the sun were rarely mentioned by adults, yet the percentage of children killed in accidents as opposed to those killed by strangers is significant. Harden, Backett-Milburn, Scott, and Jackson (2000, p. 12) reported "Risks to children have been defined largely from an adult perspective with little or no space given to children's own views." In their study on how children and parents negotiated risk and safety, Harden et al. found that although children often mentioned stranger danger, it was put down to the high profile in the media. They found that young children did not equate sexual abuse with strangers, but that adults did.

Most mentioned by children in this study was the need to learn how to deal with peer pressure from their peers and older teenagers. This they thought compromised their safety, particularly since most of the pressure was to persuade them to take drugs. This was consistent with the findings of Harden et al. (2000) and McWhirter (1998).

Other factors of safety were generally not mentioned by children. One has to wonder whether it is that children see their safety as an adult responsibility, and not their own. Schools are purchasing sunhats, erecting sun shades and purchasing protective lotions, so that responsibility has been taken from the child. Lowe, Borland, Stanton, Baade, White, and Balanda (2000) found that where protective measures were put in place by the schools, children saw no need for them to initiate action themselves.

A lack of interest in issues of safety might reveal that children do not equate safety with health. Where safety is taught in the school, it is generally through the

KOS programme, which most children see as meaning strangers and abuse. This has implications for the teacher and the curriculum, since other accidents claim the highest percentage of child fatalities in New Zealand. Each year 13,000 children aged under five are hospitalised because of accidental injuries such as road, burns, drownings and poisoning (Police Managers' Guild, 2002).

Suicide may also be considered a safety issue. It is certainly a mental health issue which can affect personal health, personal identity and self worth. The health curriculum recognises this, but it is generally considered to be an issue which is more appropriate at the secondary level of schooling. In this study it was found that children in Year 5 and Year 8, were talking about personal problems and knowing who they could talk to and trust. Some Year 7 boys wanted to talk about and learn about suicide and risk. They wanted to know about the causes for a person feeling suicidal. They also talked about the effects that other family members might feel when suicide occurred within the family. This was a revelation for the teacher. No teacher or parent had suggested that this should be a learning area at the primary level of schooling although New Zealand has the highest rate of reported youth suicide in the developing world (Police Managers' Guild, 2002). That primary-age children are concerned about issues such as suicide indicates the changes in society and the earlier maturity of children in the 21st century. In their study of risk behaviour which was attributed to attempted suicide in youth, Thatcher, Reininger, and Drane (2002, p. 76) concluded that prevention techniques should start before secondary school because, although suicide attempts may not occur until later adolescence, "[M]any of the risk factors associated with attempted suicide (substance use initiation, physical and sexual abuse) occur early in life, often before a student reaches high school. Prevention programmes should begin as early as middle school or earlier."

The conversation about suicide, as well as the previous discussion points have implications for the primary school teacher, and also point to the importance of listening to the concerns of children and hearing the issues that they are talking about.

Adults' openness to possible change

Central to this study is whether adults, by listening to children, were open to adapting their thinking and teaching programmes. Christensen and James (2000), James and Prout (1997), Mayall (1996) and Smith (1996) have implied that as a society, we do not have a culture of listening to, or talking with children, and because children's views and opinions have had no status, they are not important. In this study it was found that the six teachers were interested in what children were saying. While they questioned some of the issues children mentioned for inclusion in their health lessons, most teachers, particularly those of older children, were open to making changes to fit in with what children were saying.

The two teachers and parents of the younger children (Year 3 and 4) refuted children's interest in some learning areas. They believed that the issue of DAS had probably only been mentioned because of a high media profile. They argued that television was a major influencing agent which made more of an impression on young minds than many people realised. Children had themselves earlier (Theme One) acknowledged the influence of television in providing them with health knowledge. This was a similar finding to Hamblett (1994) during a study of English school-children, and Orme and Starkey (1999) and Porcellato et al. (2002) found that television was a factor in children's knowledge about smoking.

The two teachers also believed that when children made choices about selected learning areas these choices could be influenced by a dominant child in the group, or by one child raising an issue which was then adopted by others in the group. Porcellato et al. also found this to be true in their research with children. They believed that young children fed-off the ideas of others and then claimed it as their own idea. The Year 3 teacher made the following observation. *"That is the thing with young children. They trigger off each other whether it's important or not, and for five minutes it becomes important."* While noting the relevance of what the teachers were saying, it could also be argued, as has been earlier, that shared ideas by children are an important aspect of their learning.

Neither of the Year 3 and 4 teachers was particularly interested in changing their nominated areas for health learning to be more consistent with what children

had said they wanted, although the Year 3 teacher did admit to the importance of hearing what children were saying. This teacher thought that the information in this study would probably alter any future teaching. The Year 4 teacher agreed that a possible change in direction might be appropriate, so that learning areas selected by the children might be incorporated into the programme. The teacher commented:

The whole thing that we gain from what children said is that, what teachers see as important and what children see as important, is totally different. We want to iron out what's going on with them in their social interactions and those sorts of things. The parents are wanting us to teach them how to be healthy, and in fact, they are providing them with foods and some behaviours at home, that we, or the children themselves, have virtually no control over. One of the things about health is that it is so influenced by home, that leaves us with so little influence over the children.

Parents too agreed that perhaps they should listen more to the conversations of their children.

The two teachers of Year 5 and 6 children expressed more surprise about what children were wanting to learn about in health education than parents of this age-group of children. Both teachers showed a real interest in listening to children so that any relevant and personal issues could be made more appropriate for them. “*Smoking, drinking and driving, wow... in Year 5!*” was the comment made by the teacher. This teacher realised that children were more perceptive about a wide range of health and social issues and made the observation “*I think it's definitely going to change my thinking. A lot of issues, yes, I could, in the classroom, come from the children's perspective, and I think it will be fantastic.*” However, this teacher was concerned about sexual education, pointing out that as children were asking for more information on sexual matters, more expert help and support should be offered to teachers. Seig (2003) also found in her study that teachers were hesitant when talking about sexual matters, for fear of complaints and getting themselves into trouble. The teacher in this study argued that it was all very well for children to ask questions, but for the teacher, particularly young males, it was often difficult to know how far to go in terms of information given.

The Year 6 teacher commented that rightly or wrongly, the health emphasis for the class had always been based on food and nutrition, hygiene and fitness. However, these teachers heard what children were asking for and the Year 6 teacher commented “*I try to teach to children’s needs, and if I think there is a need, and if you are telling me there is a need, then I want to listen to that need and deliver.*” The teacher also pointed out that children did change from year to year, and that this would have to be borne in mind.

The Year 7 teacher after being shown the variety of health issues raised by children agreed that as adults they were not always aware of the many pressures children were likely to face. The following conversation ensued when the teacher was considering the desire by some children to talk about suicide, grief and death.

We can’t take it for granted that they know and understand how to deal with death, grief and dying and then you don’t know how far to go with it. My first year of teaching, five or six years ago, I had a girl killed on the way to school. The class talked about it, and it was really good for them, but it brought up all these other things from kids whose parents had died, and all that sort of stuff, and it was the victim support who came in and took over, so it wasn’t me teaching as such.

Atwool (2000), Jones and Tannock (2000) and Rowling (1996) have written about children exposed to risk and trauma, experiences of death and bereavement and the handling of sensitive issues in schools. Rowling points out that when the help of external agencies are sought it often serves to devalue the more intimate knowledge that teachers often have about their own pupils. Jones and Tannock also recalled the incidence of two schools who called in outside agencies to deal with an incidence of death. They pointed out that had the teachers made death a part of the learning experience in the classroom, the experience may have been less traumatic for the children. These researchers argued a case for teachers to listen to children’s *voices* when dealing with traumatic events rather than bringing strangers into the classroom. The teachers in this study worried that they were not adequate to the task.

Commenting about children’s desire to learn more about sex and sexuality matters the Year 7 teacher, like Seig (2003), pointed out that although children may

want to learn about sexual relationships and safe-sex, the decision whether to include such matters into the curriculum rested with the board of trustees. Although some of the parents had suggested that they wanted their children to be educated in sexual matters, many teachers thought it more important to protect themselves rather than to address these matters in the classroom.

The Year 8 teacher was concerned that children entering their adolescent years should have their views and concerns heard and agreed to listen more closely to what they were saying when making decisions about health learning in the future. The teacher also stressed the need to ensure that health education in the school was monitored, so that any repetition of content across the age-groups could be avoided.

7.3 Conclusion

This chapter has reported the results of what children and adults think is important to learn about in health education, and has illustrated the importance of exploring children's views using qualitative methods so that an interpretive perspective might be gained. Children in the sample in this study defined key determinants about what they wished to learn about as part of their health education at school. Even more important, children stated why they wanted to learn about many of the issues. Armed with this knowledge, all of the teachers agreed that they would now be able to plan for a more child appropriate health curriculum in the classroom. This finding concurs with the findings of Gollop (2000), Morrow (2001) and Rugkasa, Kennedy, Barton, Abaunza, Treacy, and Knox (2001) and other researchers mentioned throughout this study.

For many children, the health issues such as DAS are an everyday experience and therefore children's views cannot be ignored, even though their views may sometimes conflict with the views of the adult.

Similarly, the emotive learning areas such as grief, dying and suicide should not be avoided by teachers. Many children will have experienced loss in some way, whether it be a close family member, friend or pet, and children in this study were asking to learn strategies to cope with these emotional situations. Weare (2000) makes the suggestion that the school and the school environment should support

children, their feelings and emotions. Above all, within this environment teachers need to be able to listen.

In this study some interesting findings have emerged which suggest the importance of working in partnership with children and listening to their *voices*. In Chapter Four, analysis of the draw-and-write tasks revealed the immediate health knowledge that children appeared to have. The children's pictures clearly illustrated that as children grow older there is an increasing awareness of factors affecting their health.

The subsequent interviews, allowed children to expand on factors they thought might affect their health, share their concerns and issues about health education, and suggest the health areas about which they wanted more information. In Chapter Five, the findings indicated the importance of engaging in dialogue with children so that the real issues for children are addressed. In chapter Six the views of children and adults about the importance each group attributed to health education were explored. The findings indicated that while each group agreed that health education was important their reasons were often quite different, and again, the importance of listening to children was becoming evident.

In this, as well as the preceding three chapters, the findings have implications for the school in which this research was undertaken. What has been found is that children are far more informed about health issues than was initially thought, and what they had to say was worth listening to. This study has also revealed that many children were concerned about what was presented to them as health education, and they clearly articulated what they really wanted to learn during the conversations.

Chapter Eight summarises the findings from this study and considers the curriculum implications arising from these findings, as well as implications for further research..

CHAPTER EIGHT

Conclusion

8.0 Introduction

Children were the central focus of this study, and the research carried out was firmly grounded in a belief that children's *voices* should be listened to and heard. As stated in Chapter One, this study was built on the foundation of children as active social beings who can, and do, shape their own perceptions of the world. This study would show whether findings from a small sample of New Zealand children from one decile 7 primary school were justified.

The research involved collecting data from children in Years 3 to Year 8 (seven to twelve year olds), their parents, and their teachers, about health knowledge and curriculum content. Chapters Four to Seven summarised the results. From these results and findings a number of conclusions can be drawn which have relevance and implications for theory, further research and curriculum practice. These, together with the limitations of this study, are presented in this final chapter.

In Chapter One it was suggested that children seem to have a wealth of knowledge and experience, and they seem to have views and opinions about almost everything related to their lives. Yet these views are seldom sought by teachers and curriculum designers. It is taken for granted that adults establish and shape the school curriculum at the national level, and give little thought to the possibility that children, in partnership with the teacher, at least to some extent, could help shape curriculum content at the classroom level by providing valuable information about themselves. As reported in the literature chapter, a number of researchers have argued the need to enter into dialogue with children about curriculum, and that their views should be

represented at the earliest stages of curriculum planning. This was borne out in this study by the children themselves, some of whom pointed out that health education was boring and repetitive. Previously, it was not known (or at least has not been reported) what New Zealand children say about their health education. The findings in this study now tell us what some children do say. This study also compared what children were saying to what adults believed children should be learning in health education. The findings in this study contribute new knowledge in this area and open the way for future research with children and their health education.

Listening to children in particular, but also listening to adults was the central intention in this study. The following research questions were devised that enabled children's and adult views to be heard:

- What health knowledge and perceptions did children already have about health and health issues? (Draw-and-write illuminative research, followed by conversational interviews).
- Where did children acquire their health knowledge and perceptions? (Conversational interviews).
- What aspects about their own health were children concerned about?
- What did children most like to learn about in health education?
- Did the views of children differ from the views of adults?
- How could teachers make use of the children's views in terms of classroom planning for health?

8.1 Summary of findings and discussion

The following is a summary of the major findings:

1. The importance of children's *voices*. Children have views and can give them.

The major finding in this study was that children did indeed have views and could express them. The children in this study pointed out that rather than teachers telling them what to do about their health behaviour, and making assumptions for them about what they should be learning they also needed to know why. Older

children in particular argued that teachers should answer their questions about issues in which they had an interest or were concerned about. Many children from all of the age-groups were concerned about a variety of social issues because they had realised that there were real consequences for them and their future health and well-being. Such issues were the manner in which germs and viruses were transmitted, the real consequences of teenage pregnancy, the use of alternative health remedies rather than conventional health care, the effects of suicide, particularly for the wider family group, the consequences of inappropriate dieting in the effort to fit a particular body image, and the targeting of children by retailers in their promotion of teenage alcoholic drinks such as KGB, Stingers and others. Some of these children had begun to realise the importance of subject matter that might be dealt with in health education. They were beginning to recognise the relationship between health behaviour and their own growth and development, and they were arguing that there were things they really should know about, and that they should be given the chance to explore their options about various issues. Such was the case when some of the older girls talked about conventional medical practice versus alternative health remedies, and the young boy who had pointed out the futility of telling him not to smoke when he really wanted to know how to stop.

There appears to have been a reluctance to confer with children about their learning because of the presumed unreliability of their views. Some of the Year 8 children for example had suggested that they were only ever told what teachers thought they should know about, but not what they really wanted to know. One Year 8 girl said *“why don’t they ask us. I’ve got an opinion too!”*

Thus the findings of this study add evidence to the growing number of researchers who are now beginning to realise that those most able to provide information about issues that are relevant to children are the children themselves (Scott, 2000, p. 106). Mayall (2000) argued “[By] conversing with children we can learn about what they know, and, to some extent, how they learn” (p. 120), and Garbarino, Stott et al. (1992) stressed “Children can tell us more than we thought possible, if we adults are ready and able to play our part” (p. 317).

The sample of adults in this study were surprised when they realised the extent of the issues with which their children were grappling, or at least thinking about. All of the adults, both parents and teachers, agreed that they really needed to question their own thinking. The teachers, particularly those with children in Years 5 to 8, thought it important for them to re-think some of their classroom health programmes to make them more appropriate to the needs of the children.

Researchers such as Aggleton et al. (1998), Christensen and James (2000), Greig and Taylor (1999), McWhirter (2000), McWhirter and Wetton (1998), Smith and Taylor (2000) and Wetton and Moon (1988) among others, have acknowledged children as competent reporters of their own experiences, who had their own views and opinions about matters affecting their own lives. In this study the children demonstrated that they were more than capable of contextualising events in relation to their own experiences. As the children had talked, their stories began to emerge. The opinions of several other researchers that we should give children a *voice* in making decisions about their own learning have been verified by the findings in this study. Children did have their own views and could express them.

2. Negative and positive health knowledge.

One finding which became increasingly evident during the analysis of children's pictures was that children mentioned the negative factors affecting their health more often than positive factors. For example a greater variety of factors which made them not so healthy had been drawn during the draw-and-write tasks and were also referred to during the conversational interviews. It had become clear during the interviews that children were repeating many of the messages which they heard in their daily lives or had picked up from television and other media advertising. Similarly when children had implied that they were only ever told what not do, it revealed that the negative messages were being transmitted. The word '*don't*' was prevalent throughout children's conversations. For example a common conversation was "*Don't eat junk food and don't smoke.*" Backett and Alexander (1991), Hillman, Adams, and Whitelegg (1990) and Roberts et al. (1993) all pointed out that many health programmes in schools dealt with issues where children were being taught not

to engage in certain behaviours, such as smoking, but they were taught in such a way as to instil the element of fear. Many of the messages were illustrated in the children's pictures with written captions such as "*smoking stuffs up your lungs and drinking can poison your body and kill you*" (Year 7 boy). While this may be true, and the findings did suggest that there was a need for continuing commitment to teaching preventative strategies about certain health behaviours, there would also seem to be a place for more programmes which also deal with intervention strategies.

3. A different methodology.

The findings in this study have indicated that draw-and-write was a useful technique to elicit the views of children. These results are consistent with the many researchers now employing the technique in their research. It was found that children in this study gave immediate health knowledge through their drawings, a finding which may inform teachers in their health curriculum planning.

It was suggested in Chapter Three that when researching with children, a different methodology was called for. For that reason, (and I wanted to use a process with which the children were familiar, such as drawing pictures), the draw-and-write technique was used as a starting point to the research. As a research tool the participatory approach of draw-and-write was useful in describing children's progression of health knowledge. This initial phase of the research opened the way to qualitative data gathering approaches which resulted in more complex information. Draw-and-write is similar to a teaching approach used in many New Zealand classrooms. Children are asked what they know, and what they need to know more about. Similarly, in this study children expressed what they already knew through their drawing. In the subsequent conversational interviews children then expanded this knowledge and went on to say what it was they really wanted to know more about. If used appropriately by teachers, this knowledge could well determine further planning for learning.

In Chapter Five the conversational interviews explored with children what they knew about health, what they thought about health education and, what were the health issues that they were most concerned about. As had been found with draw-and-

write, during the interviews children were also more likely to talk about what made them not so healthy rather than what made them healthy. What was becoming clear, with both younger children (Years 3 - 5) and older children (Year 6 - 8), was that initially children spoke about the same key areas: eating healthy food, having plenty of exercise and attending to personal cleanliness (What makes them healthy) and not eating the right foods, a lack of attention to cleanliness and indulging in alcohol, smoking and drugs (what makes them not so healthy). The findings revealed differences between younger children who were more likely to talk about hygiene and older children who were more interested in alcohol, smoking and drugs. All children talked about eating habits. Another finding was that while older children seemed quite knowledgeable about a variety of health issues, many younger children generally seemed to repeat many of the health messages about which they received regular reminders. While the older children initiated their own conversations about things of interest or concern, younger children seemed to rely on classmates who were more talkative and then became involved in conversation about the issue as though it were their own.

4. The influence of television as a source of knowledge.

This study found that children generally cited television as their major source of knowledge. It was, however, found that some of these children were often missing the real intent of the message. This, too, implies that careful attention should be given to the conversations of children and use made of them as a basis for teaching. The frequent mention of topical issues such as drink driving, teenage pregnancy, violence, suicide and the effects of some diseases means that maybe teachers need to look beyond the basic health messages about healthy eating, exercise and hygiene, and make health education more appropriate to the present social needs of the children. In this study the teachers agreed that they should take more notice of what children were saying and what they were interested in, and incorporate this into their health teaching. It may be thought, for instance, that primary children are not involved with drink-driving, however they are often present at events where alcohol is consumed

and are invited into vehicles as a means of getting home whether it be with older peers or parents.

It was found that children, particularly boys, alluded repeatedly to the graphic messages about drinking and driving depicted in television and other media advertising. However, it was also found that many of the older children also spoke about the consequences of negative health behaviours and were beginning to realise the personal level of responsibility required of them. Many examples were cited from the New Zealand medical drama *Shortland Street*, which children said often depicted issues such as teenage pregnancy, suicide, anorexia, homosexuality and relationships.

Most children referred to advertisements on television, although some of the older children also mentioned that they often gained useful information from documentary programmes. Some of the examples given from their life experiences indicated that some of these primary school children were far more involved in what was previously thought to be adolescent (older teenage) activity, such as being present at parties where drink and drugs are freely used.

5. Seeking sophisticated knowledge about sexual matters.

This study found that some older children were beginning to become interested in sexual issues. While classroom programmes at the Year 7 and Year 8 level (11 – 12 year olds) usually involve teaching children about changes that occur to them at the onset of puberty, the information that many of these children were seeking was about safe-sex, the use of contraception, teenage pregnancy and sexually transmitted infections. The issue of gay-sex and sexual orientation was also raised by some Year 7 boys. This surprised the two teachers of Year 7 and 8 children although many of the parents in this study had realised and indeed, suggested that children needed to learn about sexual matters. One parent had even suggested that parenting skills should be taught at the Year 8 level.

6. Primary school children, suicide, violence and other health issues.

It was found that some of the older children were beginning to become interested in issues such as suicide and the reasons that some children might feel the

need to end their own lives. One boy also realised the implications that suicide within the family might have for other members of the family.

These conversations were not confined to older children, because there were some children as young as Year 4 who were talking about the transmission, effects and consequences of viruses such as meningitis. A Year 3 and a Year 7 boy had raised the issue of having a gun for personal protection and this had prompted discussion about school violence, indicating that these children were up-to-date with current affairs. Further, they had recognised the potential for events which were taking place in schools overseas to happen in New Zealand schools. This further indicated the need to enter into more dialogue with children about health issues which had the potential to affect their mental health. These findings are similar to the findings of Turner, Zimvrakaki, and Athanasiou (1997) and others.

7. Critical concerns about health.

It was found that children identified concerns about health which were particularly critical to them. For example some children as early as Year 5 were showing an interest in caring for the elderly and those with disability or with conditions such as diabetes. Others believed that they ought to learn about first aid so that if anything happened when they were with elderly relatives, they would know what to do. Two boys in particular were very conscious of the potential of the violence going on in American schools to happen in their own New Zealand school. Some boys in Years 7 and 8 wanted to learn about drugs that were available at social occasions, such as ecstasy. These boys also brought up the issue of safety and drugs and the use of dirty needles. Often these concerns might have appeared to be more consistent with secondary students from Year 9 upward. The findings here indicate that teachers must become more aware of the social world of the child today, and realise that although the issues about which they are concerned were not concerns a generation ago, they are very real for children today. Listening to children and hearing what they are saying can reveal a very different social world to that which many adults experienced as children. Again, as Alderson (1995), Christensen and

James (2000), James and Prout (1997), and Kiddle (1999) have argued, adults need to listen to what children were saying.

8. Disappointment with school health education.

It was found that many children in this study were disappointed that teachers did not meet their expectations for health education. There were reservations about the way in which health was presented to them in children as early as Year 5. Many children queried the type and the amount of information which teachers assumed was appropriate for them, and some of the older children had vocalised a dissatisfaction with the handling of their health education, pointing out that it did not include issues in which they really had an interest. This is in line with Jensen (2000) and others who have argued that if the purpose of health education is to enable children to become more responsible about their health behaviour, then teachers need to base health learning on the real issues and experiences in the lives of the children they teach. Scriven and Stiddard (2003) also allude to this in their article on the empowerment of young people.

9. The importance of health education.

It was found that that both children and adults thought health education was important, but often for different reasons. It appeared that many children, particularly those from Year 5 upwards were developing a more critical view about the importance of health education and what health education should include than were adults. Many children felt that their present health lessons did not really tell them what they wanted. They believed that teachers did not allow them to air their concerns; that their questions went unanswered. They were simply told what they should do, but were never told why, and that a concern for their own privacy often prevented them asking what they saw as the important questions, and therefore any personal problems they might have went unanswered.

Adults, too, believed that health education was important, but very often for different reasons to those given by children. Generally, parents thought that health education at school could be used to reinforce the health messages given by them at

home. Teachers believed school to be the ideal place for them to equip children with life-skills. While children and teachers seemed to be heading in the same direction, children still considered that their needs were not really being met. Four of the teachers (Years 5 to 8) acknowledged the limitations to providing an adequate health curriculum because of the insecurities and lack of experience they themselves had. In the research carried out by Wetton and Moon (1988) and Aggleton et al. (1998) it was found that tensions often existed between those planning for health and different groups all seeking different outcomes. It was found in this study that each group (children and adults) also had their own individual expectations, but as Collins et al. (1998), McWhirter et al (2000), and Rowling (1996) all pointed out while stressing the importance of school health education, its content needs to be appropriate to the needs and interests of the children.

10. Issues central to listening to children.

There were several findings that were central to listening to children and gaining their views:

- The importance of talking to children to better understand them.
- The way in which children's views were often negated in favour of adult agendas.
- The way in which teachers choose to teach what lies within their own comfort zones.
- The question as to whether teachers were open to change.

The importance of talking to children to better understand them

This study found that there were differences between children's and adults' views about health, which opens the way for misunderstanding between the two groups. There was evidence of a lack of consultation with children by adults on matters that concerned them. Thus adult agendas were more likely to define the issues that were deemed to be important to children, something observed also by Stainton-Rogers and Stainton-Rogers (1992). However, what adults in this study identified as

essential to health learning was often based upon their own experiences and learning at school, and not on what they gained from a dialogue with their own children. Further, many parents were fearful for their children, often assuming that their own concerns should also become the concerns for their children, for example, danger from strangers. Parents appeared to be protective of their children, and were often unaware of the sophisticated knowledge about many issues that children already had. That is, parents tended to underestimate children's knowledge.

The way in which children's views were often negated in favour of adult agendas.

Children in this study were aware of numerous health issues, and, as they grew older were beginning to realise the importance of some the issues for their own health and the health of other people. This finding supports the principles of the emergent paradigm about children which James and Prout (1997) described in the early 1990s.

From what many children in this study were saying, it appeared that health education was essentially taught from the point of view of adults. Some teachers and parents from the sample were surprised at the issues children were talking about. Some of the teachers and parents expressed dismay that children as young as Year 3 should be talking about smoking and alcohol, and about illnesses such as meningitis. While teachers agreed that they would think seriously about bringing children's issues into their teaching, there was still a reluctance to believe that these were the issues in which children were really interested. However, James and Prout (1997) had earlier urged that childhood be rethought. They argued that adults did not always know what was relevant for children, suggesting that children had major roles to play in their own learning. They urged, as did John (2000) that children should be given a *voice*, and that adults should hear and understand these *voices*.

This study has revealed that the sample of children did not necessarily want to be passive recipients of what adults think they should be learning. They welcomed the opportunity to take an active role in the construction of more appropriate curriculum which might bring their own interests and concerns to the fore.

As mentioned in the literature review, consulting with children and listening to their points of view has its critics (Waksler1991). Some believe that if children are allowed to tell adults what to do it will undermine the control that adults seek to maintain. The intention, however, is not to pass control over to children. Rather, it is that partnerships be formed between adults and children. Those against encouraging consultation and partnerships with children feel that children are not able to represent their thoughts reliably or to think sensibly (Alderson, 2000). In this study this feeling was borne out by the two teachers of younger children. However, the findings also suggest that many children were capable of logical and reasoned thought, and were able to express their views clearly about their learning in health. These findings point the way ahead to forming partnerships with children and encouraging a shared environment, where adults and children plan together for appropriate learning in health.

The way in which teachers choose to teach what lies within their own comfort zones.

It became clear as this study progressed, that the sample of teachers had their own comfort zones when selecting what was appropriate for children to learn about. One teacher of the older children expressed the view that rightly or wrongly, sex education was confined to the teaching of pubertal change, and then, usually by an outside provider such as The Family Planning Association or the school health nurse. The reasons given were that sex education was generally beyond their personal capabilities and that the health professional was better suited to answering children's questions. Teachers, they said, were usually bound by policy set down by the board of trustees of the school. Sieg (2003) also found in her research, that many teachers felt threatened when expected to teach sex education.

Although the teachers argued that they did generally teach to the needs of the children, it was found in this study that the insecurity about many health issues meant that teachers were not really taking into account children's views. However, it was recognised by the researcher, particularly with regard to sex education and some mental health issues such as suicide, grief, loss and change, that teachers are still

treading a fine-line between what children are asking for and what school boards designate as appropriate curriculum content matter.

The question as to whether teachers were open to change.

It was found that the six teachers in this study were interested in what children were saying, and while they questioned some of the issues raised by children, they were generally open to making changes to accommodate what children were saying. The teachers of Years 3 and 4 children were doubtful about children's interest in smoking and alcohol, saying that these issues were not really so much a matter for concern, but more likely to be the result of a high television profile. Similarly, these two teachers did not believe that the children were really interested in learning about illnesses such as meningitis. Unless children had experienced the illness within the immediate family the teachers said that it was not a tangible experience for children to be talking about. However, these two teachers agreed that if children were to raise these issues in class-time, they would certainly take their cue from the children and build the concerns into their teaching. The teachers of Years 5 to 8 children were particularly interested in listening more closely to what children were saying and in building their teaching around this.

11. Children were better informed than assumed.

It was found that children were more informed about health issues than adults might have wished to believe. They were interested in topical health issues because they were themselves affected and knew others who may be affected. Information came from the issues depicted in the newspapers, and the virtual media and television. There was evidence that they were genuinely concerned and wanted to know more. They had many questions and they wanted answers. To reiterate a point made several times already, this study has shown that children have opinions, they will express them, and what they say is usually worth listening to.

8.2 Contribution to curriculum knowledge

The findings of this research have a number of implications for health curriculum in schools. Throughout this research I have had an awareness of a commitment that research of this kind should relate to the real world of schools and classrooms. While the main focus is on the research project itself, the originality of the findings have implications for the curriculum. As earlier mentioned in Chapter Two, any health education programme in school must address the needs of the consumer, in this case, children. But as Aggleton et al. (1998) and Wetton and Moon (1988) have pointed out, there are often tensions between what the school wants, what parents want their children to learn, what teachers think they need and what children themselves want to know more about by way of the curriculum.

1. The first major contribution relates to assumptions about who makes curriculum decisions. Curriculum has characteristically been the domain of teachers and national curriculum designers. Teachers are expected to design classroom programmes based upon national curriculum guidelines. Therefore, at the classroom level it is teachers who decide what should be learnt and how it should be taught and studied. From the results in this study a change specifically in power relationships between child and teacher might be suggested, to take advantage of children's views. This is not to make the radical move of transferring power to the child, but rather to facilitate a positive partnership, where dialogue between the two parties may allow for a more learner-oriented curriculum. Bronfenbrenner (1979) suggested that when teacher and learner worked together in cooperative partnerships, then the curriculum became more meaningful to the learner. Green (2002, p. 51) states that in shaping programmes, consideration should be given to equity and empowerment. This may be unrealistic in the present climate of assessment and achievement criteria in the national curriculum. However, within the classroom, content, objectives and the process of delivery should be done in partnership, so that programmes become more appropriate, and children's concerns satisfied.

2. Associated with this question of decision-making and power relations is the issue of whether children can actually contribute worthwhile information. In Chapter One it

was suggested that a curriculum that is driven from the 'top' views children as recipients of pre-set knowledge and content. The question of whether children were mere receptacles for receiving knowledge deemed important by adults, or whether children actually had the ability to determine what they want to learn was very real for this study. Some researchers such as Sieg (2003) and Tones (1990, 1995) view health as empowerment. The notion of empowerment is based on the concept that those who are to be empowered, namely children, are able to voice an opinion about issues that concern them, and take some responsibility. At this point it could be argued that children and young people do not have this capability, and this is why some of them do not view health education as addressing their needs. It would be unreasonable to suppose that children could be completely empowered, but, as earlier mentioned, partnerships could be encouraged between all those concerned in determining the content of the taught curriculum. This would follow the Freirian concept of empowerment (Freire, 1973). Children would be encouraged to become more aware of the critical health and social issues and be included in dialogue about coping strategies and decision-making within a context they understand and to which they can relate. Children and teachers might realistically work together in the co-construction of curriculum. The findings in this study have revealed that to a large extent children did know what they wanted to learn about. Therefore, when selecting content for the health curriculum teachers could benefit from listening to the views and concerns of children, so that both content and teaching approaches were more meaningful to children by being set in the context of their daily experiences.

Tasker (1996/7) comments that the Freirian approach and the notion of empowerment is inherent in the 1999 *New Zealand Health and Physical Education Curriculum*. However, teachers require guidance in the implementation of the curriculum, up-skilling in the more democratic teaching approaches, and they require courage to recognise and promote children's viewpoints into their planning. This would then enable children to see the relevance and importance of health education in the context of their own lives.

3. There is also the issue of how much children understand about health and health education. Hantler (1994) suggested that if curriculum was to be appropriate for children then there was a need to find out how children viewed a particular topic or issue, to try to learn what and how they thought, and to find out what their actual understandings were. Pridmore (1996) considered that exploring the perceptions of children might well prove relevant and effective in the design and delivery of appropriate health learning, and suggested that “didactic approaches often failed to address children’s own experience and explanations for health and ill-health” (p. 15). Moore (1999), in an editorial on a new health agenda for children and young people supported the notion of engaging in dialogue with children, so that appropriate programmes might be conceived, designed and implemented. Moore called for more research into children’s understandings of health “and the linguistic idioms in which those understandings are expressed” (p. 161). Similarly, Kitzinger (1997, p.177), when talking about making child abuse preventative programmes more appropriate and useful for children, commented that “through listening to children, and incorporating their feedback, these programmes can constantly evolve”.

Other findings, too, have relevance for the health curriculum in the following ways:

1. The need for flexibility: The findings reveal a diverse range of student and adult views. These should be set against the national curriculum document which is a statement of intent and coverage (that is, a guideline) and not necessarily a prescription for teaching, and therefore teachers have flexibility in what and how they teach. Tasker (1996/7), one of the writers of the national curriculum in health education suggested that the curriculum was “an open rather than a closed system” (p. 195) which means that the teacher could well adapt teaching and learning to the needs and interests of children.

2. Negativity: The findings showed that most children were picking up on negative health messages. Consequently, there is a need to re-focus the way health teaching is carried out and the messages which are implied. Such teaching might need to take an

approach which stresses the positives of different health behaviours, and develops strategies and skills to enhance this aspect rather than emphasising what children ought not to do. This would provide children with positive life-skills rather than negative attitudes.

3. Maturity and levels: The findings showed that children changed in their views of health as they grew older. In some years children may want to learn about basic health issues, whereas in other years the issues in which they are interested may be more advanced and sophisticated. The teacher would need to be flexible in approach and acknowledge the progressive learning spiral for children so that health knowledge and learning are made appropriate to the critical point of development reached by children.

4. Topical health issues: The evidence in this study was that children were becoming more aware of topical health issues and these needed to be regularly incorporated into the classroom curriculum. For example the teacher should be aware of the topical interests of the children and build these into the key areas of learning for health education. An event which occurred during the writing of this thesis was September 11th. The issues for health might easily have been bullying tactics, grief and loss, fear, safety and suicide to name a few.

5. Misconception: The question of how much children understand about health was raised above. The findings in this study showed that children had many misconceptions about health. While they had views, they were sometimes incorrect and this is an implication for the curriculum. There is a need to hear what children are saying and correct any misconceptions they may have, rather than accept all views at face value.

6. Empowerment and preventative programmes: The findings showed that some health programmes need to be reviewed in the light of what children were saying. For example children who were already practising the habit of smoking did not need to be told not to start, but how to stop! Packaged programmes need to be scrutinised

carefully, and more attention paid to what children are saying or have experienced, or both. It may be useful to consider the introduction of intervention programmes at the primary level of schooling.

7. Philosophical perspectives: Findings also indicated that teachers may need to pay more attention to the mental, social, physical and spiritual, rather than focussing on isolated health topics which many children do not recognise as essential for their health and well-being. For example, some children said that the love of a family was important for their health, and comments like this could well contribute to the exploration of values and attitudes and the important roles that other people have for their health and well-being.

As has been mentioned earlier, the document *Health and Physical Education in the New Zealand Curriculum* is a general statement, not a blueprint for teaching. It provides teachers with direction for teaching and planning in health education, prescribes general topics that could be taught, but leaves the details to teachers. This has relevance for this study, because teaching and planning could be conceived and constructed in partnership with children in particular, as well as taking into account the views and feelings of significant others, usually parents or guardians.

Throughout the conversational interviews children showed that they were more than capable of informing curriculum. It was found that not only were children able to talk about what they knew, but were able to identify those areas about which they wanted more information. As children became older it was found that they were becoming increasingly interested in current and topical issues, realising that the issues might very well affect them or those they knew. They were also recognising that their own behaviour had consequences for both themselves and others. They wanted more information about things that were beginning to matter and affect them. They had more questions, and above all, they were aware that there were times when school health lessons were not giving them what they wanted. A Year 6 boy for example, had suggested that it was useless teaching him about the physical nature of alcohol. He wanted to know what he could do and who he could go to when

alcoholic behaviour caused abuse in the home. These were very real and lived issues for some children who were justifiably concerned that the health curriculum address them.

Children today are growing up in a changing world. The latter part of twentieth and the beginning of the twenty first centuries have undergone many social changes. The social expectations and increasing pressures from many sources have meant that children have had to “grow up faster” than children before them. They are having to cope with persistent pressure from advertising, media, peers, and the availability of varying commodities not conducive to their health. The values and attitudes of the young may no longer exactly match the values and attitudes of their parents and other adults. Comments by Weare (2000) suggest that children today face many frustrations and concerns and these are placing schools under enormous pressure. There are many in society who expect schools to cope with the social problems, emotional needs, physical well-being, morals, values and attitudes of children and young people. Many think that the health curriculum should provide the answers.

There is, however, no one curriculum area that has the capacity to address all the issues. Health Education and its curriculum should not be seen as a quick fix, nor act as a scapegoat for societal problems. However, a well planned and coordinated approach to health education in a health-promoting environment may help to facilitate the acquisition of life skills and strategies that may enable children and young people to make positive decisions about their health behaviours. Equipped with knowledge, skills, positive attitudes and, with the necessary support, children and young people may be encouraged to approach life in a positive manner. In order to more adequately cater for children today there has to be a move away from the moralistic emphasis on behavioural change and victim blaming to a more democratic style of health education (Jensen, 2000). The moralistic approach relied on the traditional provision of information and monitoring of behaviour change. Today, health educators must promote a positive school environment, where the physical, emotional, spiritual and social aspects are recognised and valued. Parents and teachers, rather than being primarily knowledge givers, should encourage a cooperative environment where views can be expressed, valued and listened to. This

suggests that negotiation might be better than total reliance on the transmission of facts and telling children what to do.

The findings in Theme Three illustrated the importance of consulting with children about the teaching and learning content of the curriculum. The concerns and issues are real for children and as Wetton and Moon (1988, p. 60) suggest:

It would be too easy to dismiss the sense they make as uninformed, childlike in its logic, lacking insight and experience and merely amusing. If we dismiss it we may also miss the critical factors in a successful health education programme and fail to get to know the world as the children experience and explain it. If, however, we can capture and monitor the changes and landmarks of their perceptions, and analyse the messages they have already internalised, we can see the critical times in their learning and plan appropriately and systematically.

There is a need to move away from the bi-annual teaching of discrete topics such as drug education (*DARE*), Keeping Ourselves safe (*KOS*) and *Understanding Changes at Puberty*, because they do not always deal with the issues relevant to the children at that time. It is also easy for some children, if away on the day of the programme, to miss out altogether. Teaching the simple messages of eating the right food, having regular exercise, and attending to basic hygiene also needs attention. As Aggleton et al. (1998, p. 219) point out these health issues need to be addressed “in a broader and more relevant context, consistent with the concerns and needs of young people themselves.”

8.3 Limitations to this study

There were two limitations to conducting this study, one being the size of the sample group and the other the timing of the study. The research sample comprised 63 children and 62 adults and was limited to one decile 7 primary school. Part-time study places time restrictions on research, and the decision to work with only one school was made to compensate for this. In hindsight, had the research sample incorporated a larger number of children and adults drawn from a wider variety of schools representing different socio-economic populations, a more representative view may have been possible. As it was, there is no way of knowing how

representative the views that were expressed by children and adults in this study really were.

Greig and Taylor (1999) point out that some children may be hurt if they are left out of any part of the research activity. In this study it was not possible to include all children in the interviews and this was a cause of disappointment for some children as well as a limitation to the study. In hindsight, this study could have been extended, although more time would have been needed. To include all children in the six classes in the interview process would also have necessitated the employment of additional research assistants, and was not possible in this thesis research.

Timing of the research was also a limitation. The research was undertaken during terms three and four of the academic year. This is the busiest time of the academic year in New Zealand and I sought to avoid undue pressure on the teachers. For that reason, while the teachers offered their classes and their time freely, and went out of their way to accommodate the research needs of the study, pressure on teachers' time meant that there was very little time for follow-up activities, particularly with the children. At the end of the year, children in Year 8 moved on to high school. It was unrealistic to analyse and present data to the school in such a short period of time, and therefore a whole class had left, as had three of the teachers by the time a report was presented to the school. Although a teacher development day was held with the teachers, only three of them were present, and no further contact was made with the children. This was disappointing as it was felt that the research process was unfinished and not ideal if the research was to have closure. Ideally, more time was needed, but was not possible in this doctoral study.

While discussion about ethical issues may not be seen as a limitation to the study it does have the potential to pose problems. When conducting research with children the importance of strict adherence to ethical principles and practices must be paramount. Everything was done to ensure that children were included in the information process about what the research was about and their part in it, that their permission was sought albeit verbally, with written permission for their participation gained from the Principal, teachers and parents. The children were informed about what would happen to the information given by them, such as the possibility of some

pictures and verbal statements being used in future publications. They were also assured that they, and their school, would not be identified by name.

No matter the precautions taken, when working with children one has to expect the unexpected. In this case information was divulged by a child during one interview session which gave rise to concern. The researcher was faced with the problem of maintaining the confidentiality against the safety of the child. This was resolved amicably and favourably with the school principal, but it does point to some of the problems that may arise when working with children. Bulmer (2001, p. 45) refers to ethics as “a matter of principled sensitivity to the rights of others.” At the same time the researcher has to weigh up the safety of the child against the promise of confidentiality. Lindsay (2000) points out that as well as researchers being aware of general ethical principles, it might be argued that there should be a special ethical code for researchers working with children.

8.4 Implications for research and theory in health education

As previously mentioned in the literature chapter, there have been researchers who are calling for more research which places children at the centre of the research process rather than being objects to be researched (for example, Alderson, 2000; France, Bendalov & Williams, 2000; James & Prout, 1997; John 2000; Mayall, 1996, 1999; Moore, 1999; Waksler, 1991). This has positive implications for research in health education, which has in the past relied heavily on quantitative methodologies. As Jensen (2000) points out, traditional health research has had a bio-medical emphasis with a central focus on illness. Jensen argues, “traditional health education delivered knowledge, but it may be the type of knowledge which, on its own, increases students’ worries and feelings of powerlessness within the health area” (p. 146).

In this study the children demonstrated two key points which have relevance to the traditional transmission of health knowledge. First, they emphasised the negative health messages they constantly received, and second, they perceived health education as being the transmission of health messages about health habits and practices that adults thought they should learn about. This, as Jensen points out, is all

about adults taking a moralistic stance about what should be given out as learning in health education. A more democratic approach which looks at the wider concepts of health is advocated by Jensen, and by the children in this study. The more democratic approach would encourage more participation by all who are implicated in the learning and teaching environment. It would encourage teachers and children to participate together and become active listeners to the viewpoints of all parties, so that health education has meaning within the social context of children.

There is a need to link the theory about listening to children to the practice of health education in the classroom. Misconceptions, picked up and understood by children are often the result of the transmission of facts alone, from a variety of sources. This has implications for research. Children often have half a picture or pre-conceived notions about health issues gained from peers, home and other sources, including the written, the visual and the virtual media. This suggests that research is needed into children's health knowledge within a context that is familiar to them. Kalnins, McQueen, Backett, Curtice, and Currie (1992) argued for the development of new methods which used children's perspectives as a starting point, and where health was recognised as going beyond the school and the home, to embrace the social experiences of children.

The findings in this study show that there are two key factors in linking research and theory to the practice of health education. The use of grounded theory enabled the use of research techniques which encouraged children and adults to share their views and have their voices heard. Grounded theory allowed children and adults to construct a picture of what was real for them. Data were discovered, coded into categories and audited. As concepts began to emerge they were interpreted and analysed. Common threads of meaning and relationships were noted. The results gave unbiased data, procedures for understanding, interpretation and verification, gave voice to all participants and allowed for the discovery of very real and passionate perceptions about the practice of health education. First, children and adults thought differently. What an adult thought about a certain health issue was not necessarily what children were thinking. Second, children's social interactions with peers and the social world around them were also different. Children in this study showed that what

they interacted with in their social lives was different, sometimes markedly so, from that experienced by adults when they had been children. Like adults, children had experienced and learnt from their interactions with external pressures, but children were much younger and still learning in a changing world. Because of these differences, an understanding and appreciation has to be developed between adults and children. This points to the importance of research which seeks to work with children and to gain insight into their perspectives. Such research involves listening to the *voices* of children. Highet (2003) made the observation that “perhaps we should treat young people as the experts on their lives...” (p. 117).

8.5 Implications for further research

Over the last decade there has been a burgeoning of research that has sought to involve children and young people in the research process itself and also to seek their perspectives about a range of health issues. To date, very little of this research has originated in New Zealand and yet, evidence would indicate a need for research into high risk issues for young people, such as alcohol and drugs, mental illness, injury and risk, tobacco use, sexually transmitted infections and unwanted pregnancies (Ministry of Health, 2002). Even more recently childhood obesity has been highlighted. This information alone would suggest research into children’s health knowledge, issues and perspectives is urgently required. This research study has highlighted several areas that require further research in the field of health education in schools.

Research is needed which seeks children’s perspectives about health education in general and the way it is presented at school, curriculum construction and implementation, and of the more topical health issues in which children appear to have an interest, and which are based on their present social needs. As Moore (1999) has suggested, there should be “more research into children’s and young peoples’ understandings of health, and the linguistic idioms in which those understandings are expressed, as well as into the social networks and social action spaces in which young people operate” (p. 161).

Aggleton et al. (1998) also made the observation that in previous research there may have been too narrow a focus on individual, and well-defined single issues such as drugs and sexual health. Like Aggleton et al. this study has revealed the need for research into everyday and commonly held views children have about what types of illness are likely to affect them, the causes of these illnesses and their effects.

Children in this study also highlighted other issues not generally associated with primary-aged children, which also suggest further avenues for research. Such issues were suicide, violence other than bullying, alternative versus conventional health remedies and practices, stress and other aspects of mental health, and environmental health concerns such as cramped city living conditions.

During the analysis of data in this study, it became clear that there may be differences between the health interests and concerns of boys and girls. In their Swedish study, Gadin and Hammarstrom (2000) described the power relations which may exist among girls and boys and health issues. It had become clear during the course of this study that in two of the classes (Year 6 and Year 8) the boys' behaviour and interest in specific health issues was very strong. Research needs to explore power relationships between the genders, and the way in which this may affect the issues dealt with as health education in the classroom. Gender difference was not a major focus in this study, but it was a consideration.

Research is also needed to explore the power relationships between those who determine what children need to learn and the children themselves. Moore (1999) argues that there is "more work needed to develop the understanding of the empowerment process" (p. 165). This present study revealed that some children had a problem with preventative health programmes that sought to change their behaviour, when in reality, intervention programmes were seen to be more appropriate. If health education is seeking to empower children to take some responsibility for their health behaviour, then the programmes presented to them must provide them with relevant skills and actions appropriate to their needs. Tones (1998) poses the question of choice, and asks what choices will young people have if they do not possess the skills and appropriate support. Research is required that asks children what they think about the programmes that are currently used by teachers in the classroom.

Research methods required are those which appreciate the presence of children as valued research participants and there is a growing number of researchers who are now devising special methodologies which are suited to doing research with children. As Greig and Taylor (1999) explain, any research procedure which is used with children should also empower them and allow their *voices* to be heard. Children should not be seen as objects to be researched, but as active participants in the research.

8.6 Conclusion

This research has contributed to the growing body of research which has investigated the extent to which children possess knowledge that is of value in classroom teaching and learning in health education. The evidence is that they do, indeed, possess knowledge that can contribute to classroom lessons and curriculum design. The findings in this study provide several further avenues of research. Children in this study spoke about a host of health issues and concerns. Many children very ably articulated their concerns about their own health education and the way in which it was taught. In a follow-up development day with some of the teachers involved in the study, they indicated how they now regarded health and its teaching in a more positive way, particularly when taking into account children's views. Some of the teachers had taken steps to experiment with using children's views to facilitate their teaching before this study was finished.

In the words of Lewis and Lindsay (2000, p. 196). "Researching children's perspectives is both a fascinating and rewarding task. It is also one that is underdeveloped, but important as a means of ensuring that children's *voices* are heard, whether in respect of their schooling, family or any other element of their lives" Perhaps by way of a final word it should be realised that children have always been here. "There have always been people who have listened, sometimes there have been people who have heard, and perhaps less often, those who have acted wisely on what children have had to say" (Roberts, 2000, p. 238).

This study has been a rewarding experience, not only for the information it has revealed, but in defining the very real potential children have for informing research.

In this study the intention was to find out what children had to say about their own health and the health education delivered to them as part of the curriculum. What they had to say has opened the door to further and exciting research to investigate the many areas which really concern them, and to explore whether a way can be paved for a more negotiated curriculum approach, with adults and children working in partnership. On the evidence from this study, children can, indeed, help shape their own lives and world.

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Appendices



Appendix A

The draw and write investigation technique: (1)

(The following two pages of instructions are taken from the original draw-and-write research (1989) and adapted with permission from the originator, Noreen Wetton).

Please ensure that this activity is completed in one session. **It should take 20 - 30 minutes.**

- Ask the children to think about what they do to **make**, and **keep**, themselves healthy. (**Stress that they shouldn't talk about it to each other**).
- Ask the children to draw pictures of themselves doing things which **make** and **keep** them healthy. (**They can draw as many pictures as they can on one side of the paper**).
- Ask children to write (or dictate to you) a caption to accompany each picture.
- If there is time after they have finished drawing and writing children may colour their pictures.

Notes:

For the purposes of accuracy in assessing the results it is important that as far as possible children produce their own unaided work. **Please try to avoid them sharing their ideas with other children.**

For younger children: Tell them what they are doing is a special activity, and if they need help they can whisper it to you.

Older children: tell them they are participating in a research study.

If undue emphasis is placed on **spelling** this may detract from or prolong the activity.

- do not use spelling books or dictionary
- spell as they think words should be spelled – or
- you write for them the words or phrases they need, and
- only write on the board the phrases '**make me healthy**' and '**keep me healthy**'

One A4 sheet per child. Pencils and crayons

The same instructions apply to task 2 with the exception that the instructions emphasise 'what makes them not so healthy.'

Appendix A cont...

Draw-and-write **investigation technique**: How to explain the activity.

Spoken instructions	Permitted prompts & reminders	Beware
<p>Introduction</p> <p>'Today I'm going to ask you to take part in an activity which is part of the health project we have talked about. Let me have a look at you. You all look pretty healthy to me. Let me have another look at you</p>	<p>Emphasise the word healthy.</p> <p>Try to look healthy yourself.</p>	<p>Please don't use other words, for example, fit and healthy, strong or feeling good.</p>
<p>Activity 1: explanation</p> <p>'Now I want you to have a good think about all the things you do that make and keep you healthy. No, don't tell me or anyone else. Keep it as a secret inside your head, things you do to make and keep you healthy</p>	<p>Repeat the key phrases: 'make you healthy and keep you healthy' as often as necessary. Encourage the children to join in and repeat them with you.</p> <p>Keep reminding them to only look at their own drawings.</p>	<p>Don't give any clues or hints.</p> <p>Don't let the children divulge their ideas to others</p>
<p>Activity 2: drawing.</p> <p>'Now I want you to go to places and draw yourself looking healthy and doing all the things you thought of that make and keep you healthy</p> <p>If you are not sure how to start, draw yourself looking healthy and then think of the things you do that make you healthy.'</p>	<p>Keep reminding them to 'Keep thinking of lots of pictures to draw'.</p> <p>Repeat the key phrases again.</p> <p>Praise children who have started, e.g. 'Yes, that makes you healthy', 'That's a good one', If necessary say, 'Try thinking of things you do each day.'</p>	<p>Discourage children your from looking at each others work and discussing their drawing</p> <p>Don't suggest what to draw.</p> <p>Beware of children copying each other.</p>
<p>Activity 3: writing.</p> <p>'Now write what you are doing in your picture. You can whisper to me any spelling you need help with. If you can't write I will come round and write for you. Tell me in a whisper what you want written and I'll write for you'.</p>	<p>Where the spoken or written words seem to have no clear reference to health, eg. 'playing' or 'coming to school', ask the child 'how does that make you healthy?' Write down the child's answer, and if it unrelated to health, please write down unrelated.</p>	<p>Don't suggest to the child how their picture might be linked to health</p> <p>Ask only the permitted questions.</p>
<p>Conclusion:</p> <p>'We have to stop in 5 minutes. I'm coming round for a last look. If you have finished you can colour in your pictures.</p>	<p>Remind them 'make sure you have drawn all the things that you thought of.'</p>	<p>Check that there is something written for each of their pictures.</p>

Appendix B

Basic question sheet for conversational interview with children

- Five girls and five boys randomly selected by the teacher from each year group (Years 3 - 8).
- The children will be interviewed in their class groups.
- Interviews will be taped with the children's permission.

Procedure and guiding questions:

- Ask children to identify their own picture sheets from the draw-and-write tasks.
Ask children to explain their pictures and talk about what is going on in the pictures
Ask: Where did you get this information from? Who told you?
- Might there be other factors which might make you healthy or not so healthy that you have thought of since drawing these pictures?
- Tell me about any concerns or worries you might have about health.
Explain why these concern you.
- Let us discuss whether you think health education at school is important or not and why?
What are some of the things you have learnt about in health education?
Share with me some of the things about health that you enjoyed learning about.
- What about some of the things you would like to know more about. Tell me about those?
Why do you think these are important to you?

Invite children to make a list of the health issues they would most like to learn about in health education. Ask children to give reasons as to why these are important to them

Allow children to listen to the tape.

Thank children for their participation and inform them what is going to happen next in the research process.

Appendix C

Basic question sheet for conversational interview with parents

- Welcome parents and thank them for coming. Ask their permission to audio-tape the session.
- Recap briefly the reasons for this research study and share with parents what children have done so far. (Draw-and-write tasks and conversational interviews).
- Explain to parents that during this session they will be invited to share their views about health education and what they believe their children should be learning in health education at school.

Basic format of session

- Parents invited to brainstorm their definition of health and talk about what health means to them.
- Parents invited to brainstorm their definition of health education in the school context and to talk about health education in general and give an opinion about its importance.
- Parents share some of their concerns about their children's health.
- Parents consider what they believe their children should be learning in health education.

Conclusion

- Parents are shown what their children (particular year group) have said they are concerned about and what they would like to learn about in health education.
- After discussion parents are asked whether, having heard what their children have said, would they change their opinion about they think children should be learning about in health education?

Ask parents if they would like to review the tape .

Thank parents for their participation and inform them what is going to happen next in the research process.

Appendix D

Basic question sheet for conversational interview with teachers

- Welcome teachers and thank them for coming. Ask their permission to audio-tape the session.
- Recap briefly what has been done with the children and their parents.
- Explain to teachers that during this session they will be invited to share their views about health education and the health curriculum and what they believe the children in their particular class should be learning in health education at school.

Basic format of session

- Teachers invited to brainstorm their definition of health and talk about what health means to them.
- Teachers invited to brainstorm their definition of health education in the school context and to talk about health education in general and give an opinion about its importance.
- Teachers invited to talk about the health curriculum and its implementation in the school, and share some of their concerns.
- Teachers give their views about what they think that children in their class ought to be learning about in health education.

Conclusion

- Teachers are shown what the children in their class, and the parents of those children, have said they are concerned about regarding health.
- Teachers are also shown the health issues that children would most like to learn about in health education.
- After discussion teachers are asked whether, having heard what the children have said, would they change their opinion about they think children should be learning about in health education?

Teachers will receive transcripts of the tape for any alterations to be made.

Thank teachers for their participation and inform them what is going to happen next in the research process.

Appendix E

Parent Survey Year

Please circle M F

1. How important do you think health education at school is?

Circle one:

very important	important	not sure	some importance	not important
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2. Explain briefly your reasons for the answer you gave above.

.....
.....
.....
.....

3. What would you most like your child to be learning about in health education at school?

.....
.....
.....
.....
.....

4. Are there any aspects about any of the above listed areas that you think are essential learning for your child's age group?

.....
.....
.....

Thank you.

Appendix F

The Principal,
School..... ... /... / 1999

Dear

Research Study: Re: Research Study: Hearing their voices: The perceptions of children and adults about learning in health education.

I am writing to seek your cooperation about your school participating in my doctoral research study. For the purposes of my study, I will be working with one school only and would very much like to involve a sample of children and teachers from your school.

In this research study I want to explore the views and perceptions of children and adults' about learning in health education. The objectives are to find out what children view as important health issues for them, and what they would most like to learn more about. I am interested in listening to the *voices* of children, their parents and teachers, and to see whether these views differ. I believe the objectives mentioned are topical at this present time as teachers come to terms with the new *Health and Physical Education Curriculum* document.

I am aware of the pressures that teachers are under at this particular time and would endeavour to make the research tasks as unobtrusive as possible. It is intended that all research tasks will be concluded by the end of the 1999 school year.

If you agree to this research taking place in your school I would be happy to meet with you and the staff. At that time I would explain the research process and the part teachers and children would play. Perhaps at this stage you could fill in and return the attached form as an indication whether you are willing to consider my proposal.

Yours sincerely

Margaret J Scratchley

Appendix F cont...

Research Study: Re: Research Study: Hearing their voices: The perceptions of children and adults about learning in health education.

Principal:

School:

I am/am not willing for my school to participate in this research study.

The staff meet onafternoon and I would like to invite you to come and address them on (date).

Signed:

Date:

return to:

Margaret J Scratchley

School of Education, University of Waikato,

Private Bag 3105, Hamilton.

Appendix G

Newsletter to Parents

Research: Research Study: Hearing their voices: The perceptions of children and adults about learning in health education.

The principal is allowing me to conduct a research study concerning health education with teachers and children in your school. The research will involve your child participating in two simple draw-and-write tasks. A further small number of children from each participating class will engage in an informal conversational interview with the researcher. The children will be asked to consider what they think are important health issues for them and to describe what they would most like to learn about in their health education classes.

I am seeking your consent to allow your child to take part in this research study. I would also ask that you too consent to being a participant in the research, which seeks also to gain the views of parents and teachers about their children's learning in health education. The time commitment for parents will be minimal, requiring your attendance at one evening interview session.

This study will be conducted during terms 3 and 4 of this year. In carrying out this research neither the school, child or adult participant will be identified by name, and this confidentiality and privacy will be adhered to at all times. However, you do have the right to withdraw yourselves and/or your child at any stage of the research.

I believe that this study will be of significance for teachers as they plan for the implementation of the new health curriculum in their classrooms. It also has significance in that children will be participants in the research and given a *voice*.

Your assistance and participation would be greatly valued. If you are happy to participate please complete and sign the two attached forms and have your child return them to their class teacher.

With thanks,

Margaret J Scratchley,
University of Waikato.

Appendix G cont...

Health Education Research Study

Consent for participation: Child

I am happy to give consent for my child to take part in the health research to be conducted during terms 3 and 4 of 1999. I understand that all issues regarding privacy and confidentiality will be adhered to by the researcher, and that I may withdraw my child at any stage.

Name of child:..... Class: Year

Teacher:

Signed: Parent / Guardian / Care-giver:

..... Date: / / 1999

Health Education Research Study

Consent for participation: Adult

I give my consent to being a participant in the health research to be conducted during terms 3 and 4 of the 1999 school year. I understand that all issues regarding privacy and confidentiality will be adhered to by the researcher, and that I may withdraw myself and any information provided by me at any time.

Signed: Parent / Guardian / Care-giver:

..... Date: / / 1999

Appendix H

Ethics Statement

The researcher will abide by the following code of ethics:

Confidentiality: No real names will be used throughout this research.

Potential harm to participants: All data will remain confidential to the participant, researcher and supervisors.

Participants right to decline: Participants have the right to withdraw themselves and their information from this research study at any time. This is stipulated in all relevant information sent to participants .

Parents or care-givers have the right to withdraw their child at any time

There will be no coercion exerted to encourage participation.

Arrangements for participants to receive information: Partnership and cooperation with the class teacher will ensure that children are involved in the progress of the research throughout this study.

Information will be sent to the class teacher so that the children may be kept up to date.

The researcher will write a report for the school prior to writing up the research, and a full copy of the thesis will be presented to the school upon completion.

Use of information:

- Doctoral thesis
- Professional publications
- Conference papers
- Further research

Margaret J Scratchley, 1999.

Appendix J

A: Body care and personal health

A1: Affecting personal and environmental hygiene.

- A1.a maintaining / not maintaining body & hair cleanliness
- A1.b cleaning / not cleaning teeth
- A1.c wearing / not wearing appropriate clothing
- A1.d washing & wearing / not washing & wearing clean clothes
- A1.e performing / not performing hygienic practices after bodily functions or handling animals.
- A1.f attending to / not attending to regular body functions
- A1.g performing natural functions [breathing, blinking, sneezing]
- A1.h engaging in dirty habits [sucking fingers, pens]
- A1.i attending to / not attending to personal grooming
- A1.j living in healthy / not so healthy conditions
- A1.k living in / not living in a polluted environment

A2: Taking or not taking preventative health measures.

- A2.a containing / not containing illness and germs
- A2.b seeking / not seeking medical attention
- A2.c taking / not taking prescribed medicines & tonics
- A2.d taking / not taking protective measures in the sun
- A2.e seeking / not seeking dental attention
- A2.f sharing / not sharing food, spit or drink bottles, medication
- A2.g abusing / not abusing the body [eg. electrical radiation, dieting, neglect, standing in puddles, rain, mud, biting mouth, induced vomiting]
- A2.h eating / not eating food from ground; drinking from dirty glasses
- A2.i getting plenty of / inadequate fresh air, sunshine & warmth
- A2.j taking preventative measures against travel sickness
- A2.k staying safe / having accidents

B: Physical activity and safety

B1: Engaging or not engaging in exercise and sport

- B1.a having adequate, / inadequate / too much sleep and rest
- B1.b taking regular / not taking regular exercise (Formal)
- B1.c taking regular / not enough exercise (informal)
- B1.d playing / not playing formal sports
- B1.e engaging in the right / wrong fitness activity
- B1.f exercising / not exercising to lose weight

B2: Balancing or not balancing recreation and leisure time

- B2.a watching some /too much television
- B2.b using the computer for the right amount / too much time
- B2.c playing informally / no time to play or have fun
- B2.d relaxing time or engaging in / not relaxing or engaging in hobbies
- B2.e having / not having fun

Appendix J cont...

B3: Avoiding risky situations

- B3.a playing safely / not playing safely
- B3.b taking precautions / not taking precautions in, on, near water
- B3.c taking precautions / not taking precautions on or near the roads

C: Ingestion and inhalation

C1: Concerning eating habits

- C1.a eating / not eating fruit and vegetables
- C1.b eating / not eating healthy food (specified)
- C1.c having some / having too much confectionary and sweet food
- C1.d eating / not eating (unspecified)
- C1.e eating / not eating the right amounts (unspecified)
- C1.f drinking / not drinking the right fluids
- C1.g eating / not eating fresh food (used by dates)
- C1.h eating at / not eating at the right speed
- C1.i having too much salt, fat, sugar, caffiene, colouring and other additives (oral health)
- C1.j ingesting items from the environment (dirt, leaves. worms)
- C1.k eating / not eating meat, fish and eggs)
- C1.l eating / not eating cereals, grains and bread
- C1.m affecting oral health and weight

C2: Concerning drugs, alcohol and chemicals

- C2.a avoiding / ingesting alcohol
- C2.b avoiding smoke and smoking / being a smoker
- C2.c avoiding / taking drugs (unspecified)
- C2.d avoiding / ingesting and inhaling chemicals and substances
- C2.e avoiding drink-driving

D: Mental and social health

D1: Affecting relationships

- D1.a having / not having family, friends or pets
- D1.b being happy and loved / not being happy and loved
- D1.c being able to express / not being able to express feelings (fear, anger, singing, talking, sadness and crying)
- D1.d caring for and helping others (including chores)
- D1.e knowing / not knowing how to deal with peer pressure
- D1.f expressing violent behaviour (kicking, punching, tantrums, fighting)
- D1.g concerning age

D2: Involving or not involving intellectual stimulation

- D2.a learning about / not learning about health
- D2.b challenging / not challenging the intellect (unspecified)
- D2.c having / not having employment

APPENDIX K

DRAW AND WRITE: RESULTS TASK 1

TABLE 1 Makes and keeps us healthy (combined results of boys and girls)

YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8
1. (C1) Eating habits	1= (B1) Relaxation and exercise (C1) Eating habits	1. (B1) Relaxation and exercise	1. (C1) Eating habits	1= (B1) Relaxation and exercise (C1) Eating habits	1. (C1) Eating habits
2. (B1) Relaxation and exercise	3. (A1) Personal and environmental hygiene	2. (C1) Eating habits	2. (B1) Relaxation and exercise	3. (A1) Personal and environmental hygiene	2. (B1) Relaxation and exercise
3. (D1) Relationships	4. (B2) Recreation and leisure time	3. (A1) Personal and environmental hygiene	3. (A1) Personal and environmental hygiene	4. (B2) Recreation and leisure time	3. (A1) Personal and environmental hygiene
4. (A1) Personal and environmental hygiene	5= (A2) Taking preventative health measures (D1) Relationships	4. (A2) Taking preventative health measures	4. (B2) Recreation and leisure time	5= (A2) Taking preventative health measures (D1) Relationships	4. (A2) Taking preventative health measures
5. (A2) Taking preventative health measures	7. (D2) Intellectual stimulation	5. (D1) Relationships	5. (D2) Intellectual stimulation	7. (D2) Intellectual stimulation	5. (D1) Relationships
6= (B2) Recreation and leisure time (C2) Avoiding drugs and alcohol	8. (B3) Avoiding risky situations	6= (B2) Recreation and leisure time (D2) Intellectual stimulation	6= (D1) Relationships (A2) Taking preventative health measures	8. (D2) Intellectual stimulation	6= (B2) Recreation and leisure time (C2) Avoiding drugs and alcohol
				(B3) Avoiding risky situations	8. (D2) Intellectual stimulation

DRAW AND WRITE: RESULTS TASK 2

TABLE 2 Makes us not so healthy (combined results of boys and girls)

YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8
1. (C1) Poor eating habits	1. (C1) Poor eating habits	1. (C1) Poor eating habits	1. (C1) Poor eating habits	1. (C1) Poor eating habits	1. (C1) Poor eating habits
2. (A1) Lack of personal and environmental hygiene	2. (A1) Lack of personal and environmental hygiene	2. (B1) Lack of relaxation and exercise	2. (C2) Drugs and alcohol	2. (B1) Lack of relaxation and exercise	2= (A1) Lack of personal and environmental hygiene (C2) Drugs and alcohol
3= (A2) Lack of preventative health measures (B1) Lack of relaxation and exercise	3. (A2) Lack of preventative health measures	3. (A1) Lack of personal and environmental hygiene	3. (B2) Lack of recreation and leisure time	3. (A1) Lack of personal and environmental hygiene	4. (B1) Lack of relaxation and exercise
5. (C2) Drugs and alcohol	4= (B1) Lack of relaxation and exercise (C2) Drugs and alcohol	4. (C2) Drugs and alcohol	4. (B1) Lack of relaxation and exercise	4. (B2) Lack of recreation and leisure time	5= (A2) Lack of preventative health measures (B2) Lack of recreation and leisure time
6. (D1) Relationships	6= (B2) Lack of recreation and leisure time (B3) Engaging in risky situations (D2) Lack of intellectual stimulation	5. (A2) Lack of preventative health measures	5= (A1) Lack of personal and environmental hygiene (A2) Lack of preventative health measures	5. (C2) Drugs and alcohol	7 (D1) Relationships
		6= (B2) Lack of recreation and leisure time (D1) Relationships	7. (B3) Engaging in risky situations	6. (A2) Lack of preventative health measures	
		8. (D2) Lack of intellectual stimulation	8. (D1) Relationships	7= (D1) Relationships (D2) Lack of intellectual stimulation	
				9. (B3) Engaging in risky situations	

