The World at our Doorstep: Evaluating an Internet-based Social Studies Programme

A thesis presented in partial fulfilment of the requirements for the degree of

Master of Education

At Massey University, Palmerston North, New Zealand.

Susan Mary Warren

2002

Abstract

If young people are to know how most of the world lives, to understand the problems faced by developing nations, and to see people in other countries and situations as real, whole people, they need more than figures and news reports. Internet-based programmes in the virtual field trip style are being increasingly used to enable students to experience other places and cultures without leaving the classroom. However, to date there have been few evaluations that examine whether these programmes have the intended impact on student learning and attitudes.

This thesis examines one such programme, the *Ethiopia Connection* run by World Vision New Zealand during March 2001. The programme was evaluated using a theory-driven evaluation methodology. First, a programme theory was derived from the literature and from the expectations of participant teachers. Factors identified as central to the success of the programme were interactivity, active learning, student choice, collaboration, access to experts, integration of several aspects of a topic, authenticity and ease of use.

Next the implementation of the programme was observed. A total of 296 schools and over 20,000 students participated in the *Ethiopia Connection*, with varying patterns of involvement according to factors such as internet access, time available and teacher skills. Lastly the impact of the programme was evaluated in terms of student learning, attitude change and participants' perceptions of the programme. Despite the inherent difficulties in evaluating learning in a programme so dependent on teachers' differing implementations, and in assessing attitude change over short time frames, there were strong indications that the programme succeeded in its goal of developing understanding and compassion for people in the developing world.

As a result of this evaluation, the programme theory outlined above was confirmed. Recommendations are made for future World Vision internet programmes, for internet-based social studies programmes in general and for future research directions.

Acknowledgements

I would like to thank my chief supervisor, Mark Brown, Senior Lecturer (New Educational Technologies), Department of Learning and Teaching, College of Education, Massey University and my co-supervisor, Alison Sewell, Senior Lecturer, Department of Social and Policy Studies in Education, Massey University College of Education for their patient, prompt and expert advice and guidance.

I would also like to thank World Vision of New Zealand, who funded, initiated and hosted the *Ethiopia Connection* internet programme and who were my employer throughout the planning, data collection, analysis and most of the writing of this thesis. I am grateful for their commitment to running such an extensive educational programme, and for their openness in giving me access to the data needed for this research.

Many people were involved in the creation and running of the *Ethiopia Connection*, both in New Zealand and in Ethiopia. I am grateful to all of them, and especially to my colleague, Alison Squires, who co-wrote many of the materials used in the *Ethiopia Connection*, and whose patience, wisdom and encouragement often helped me in talking out research problems and issues.

I would like to thank my friends and family for their support and encouragement. Special thanks to my children, Adrian and Ruth Warren, for being so willing to give up family time while I studied, and to my husband, Jonathan Warren, whose incisive questioning helped increase the rigour of the data analysis and conclusions.

Finally, I give thanks to God for his creativity and guidance, and for holding me together through a personally difficult time in the early stages of the research.

Table of Contents

List of Figures

List of Tables

Chapter One: Introduction

Few New Zealand children and young people have the opportunity to travel outside their own country. Their impression of the world is shaped by their own experiences, with the assumption that "everyone lives the way we do". Fleeting glimpses of another reality on the TV news or in social studies classes can seem unreal, and it becomes easy to ignore or judge other societies for their difference. Yet 1.8 billion of the world's people live on less than US$1 a day (World Bank, 2001), while 18% have no clean water and 39% lack any form of sanitation (UNICEF, 2002). If young people are to know how most of the world lives, to understand the problems faced by developing nations, and to see people in other countries and situations as real, whole people, they need more than figures and news reports.

A class trip to Rwanda, Ethiopia or even India is impossible, for reasons of cost and safety. However, a virtual field trip can allow students to experience the lives of people on the other side of the world without leaving their classroom. Better still, communication technology can add to the experience by allowing students to exchange messages with young people like themselves in the places they are studying. This has the potential to create a dialogue among children and young people from very different countries and backgrounds, creating partnerships between young people in New Zealand and overseas, giving a voice to the poor and strengthening the ties of the global family.

This reasoning was the impetus behind a series of internet programmes produced by World Vision of New Zealand, an international aid and development agency, for use in New Zealand schools. The programmes began in 1998 and have proved popular, with between 125 and 300 schools participating each year. With research, writing, design, programming and management, these internet connections represent a significant cost to World Vision in time and money. While some limited evaluations had been done for the first three programmes, it was decided to conduct a more thorough evaluation of the 2001 programme, the *Ethiopia Connection,* in order to gain information on which to base

decisions on any future programmes. Since internet-based programmes, and especially virtual field trips, are becoming increasingly popular in schools, it was hoped that this evaluation might also contribute to filling a gap in our knowledge of the outcomes of such programmes.

This thesis outlines the evaluation of the *Ethiopia Connection*. First, the programme itself is described, and set in the context of the definition of a virtual field trip. Next, in Chapter Two, the theoretical basis of the programme is outlined, leading to seven key requirements for an effective internet-based social studies programme. Chapter Three examines the various evaluation methodologies, and the reasons for choosing a theory-based evaluation design for this study. The data collection techniques are described in Chapter Four, and the results of these are presented in Chapter Five and discussed in Chapter Six. The conclusions from this evaluation, both for future World Vision internet programmes, and for the wider knowledge about the effectiveness of virtual field trips, are described in Chapter Seven.

1.1 The *Ethiopia Connection* - Background

Every year, as part of their development education initiatives, World Vision New Zealand runs an internet-based social studies programme for New Zealand schools. The programme links students with aid workers and young people in a developing-world country. To date these programmes have focused on a community in rural Malawi (July 1998), a street children's centre in Ulaanbaatar, Mongolia (March 1999) and child families in Rwanda (March 2000). The latter two programmes have provided an additional education focus for the 20 and 40 Hour Famine, an annual fundraising event in which New Zealand young people go without food for either 20 or 40 hours (depending on their age) to raise money for needs in the developing world. Approximately 150,000 young New Zealanders raise a total of over two million dollars in the Famine each year. Most participants register through their schools. The link between the Famine and the internet programmes enables schools to make Famine participation more educationally relevant to their students and

allows students to learn about and communicate with some of the very people they are raising money for.

The World Vision internet programmes all share a basic outline. They consist of six main aspects:

1. An internet site, which gives students a broad range of information on the country and people being studied, and which includes several interactive elements – puzzles and/or games, daily stories, a chance to ask questions and have the answers appear on the site, and sometimes a chance to communicate directly with children in the focus country.
2. A free teacher unit, with background information, instructions for using the internet site, curriculum links (mostly for social studies at levels 2 to 6) and ideas for learning activities.
3. Weekly faxes to registered schools, from someone in the focus country.
4. Weekly audioconferences allowing students to submit and then ask questions live. Normally 6 to 10 schools ask questions each week, but dozens of other schools listen to the call.
5. A free poster, with photos, quotes, activities and curriculum links.
6. A video and resource folder that schools can choose to buy, if they want a more detailed unit to complement the internet-based activities.

The *Ethiopia Connection* ran from March 1st to 31st 2001 and was designed essentially along the same lines as the previous three programmes. It focused on food security in Ethiopia. Figure 1.1 shows the *Ethiopia Connection* homepage.

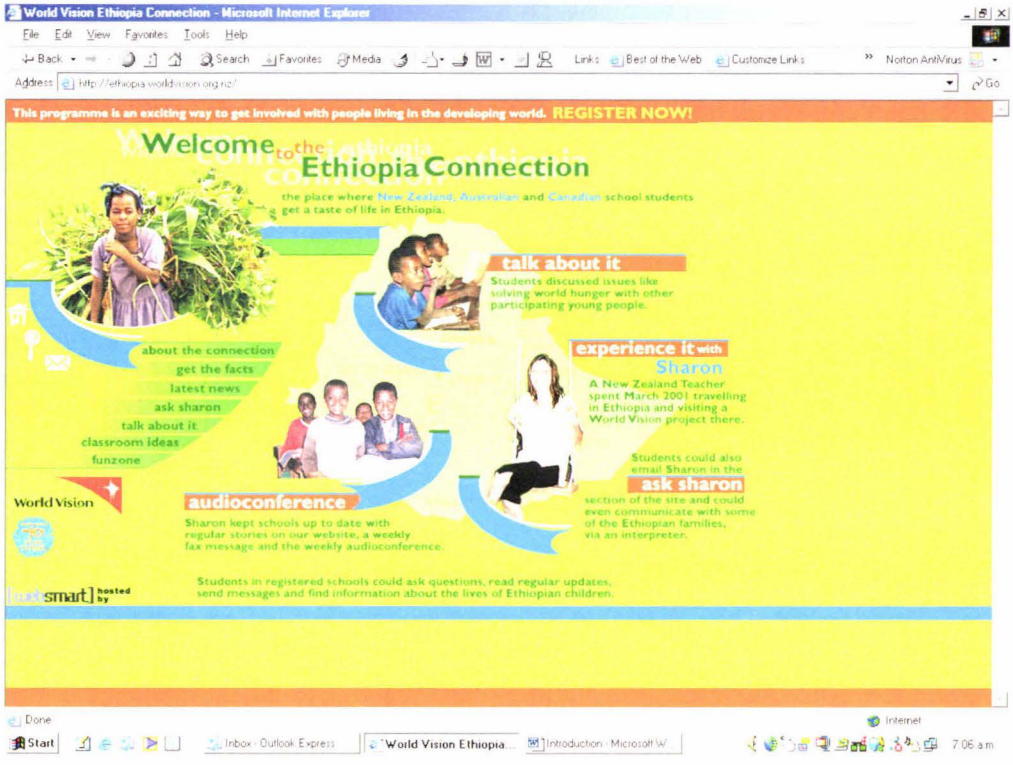

Figure 1.1 Homepage of the *Ethiopia Connection*

The *Ethiopia Connection* aimed to achieve the following objectives.

1. To educate New Zealand children and young people about food security issues in the developing world, especially in Ethiopia.
2. To change students' and teachers' attitudes towards Ethiopians (and towards people in need in general), so that they recognize them as people like themselves, who are intelligent and active in their own futures.
3. To challenge the common perceptions of Africa as out of control, hopeless, unrelievedly poverty-stricken, the cause of its own problems.
4. To increase the educational potential of the Forty Hour Famine.
5. To give teachers an easy-to-use, attractive resource so that they can create exciting, student-centred, deep learning experiences for their students.
6. To encourage more schools to participate in the Forty Hour Famine, and to raise more money for those who participate already.

The *Ethiopia Connection* differed from the 1999 and 2000 programmes by linking students with a New Zealand teacher as she travelled to Ethiopia. In contrast, the Mongolia and Rwanda programmes had linked directly with World Vision staff in the focus country. However, this had proved time-consuming for the staff, and had meant that stories and answers were not always written to the right language or interest level for New Zealand children. It was therefore decided to select a teacher for the task of fronting the programme. This teacher was chosen by application on the basis of previous developing-world experience, and their writing, speaking and photography skills.

In preparation for the programme, registered schools received a colourful poster with photographs of drought and agriculture in Ethiopia on the front and information and brief teacher notes on the reverse. They also received a unit with syllabus links, instructions for using the website, schedules for the faxes and audioconferences, activity ideas for levels one to six and background information on the topic. A copy of this unit is included as Appendix I. Together these two items provided enough resources for teachers to create a unit and make good use of the website. Those wanting a fuller unit could also purchase a folder and a related video, both of which included an in-depth case study of a family.

The successful applicant travelled to Ethiopia from late February to late March 2001. While there, she visited tourist sites, and spent time in a rural World Vision project, meeting families, observing project activities, especially those relating to food security, and interviewing project workers and community leaders. Via the internet, faxes and audioconferences, students heard about the teacher's travels, and were able to communicate with her, with some of the World Vision workers and to a limited extent with some Ethiopian children. Figure 1.2 shows the Latest News page of the website, where the travelling teacher posted stories about her experiences.

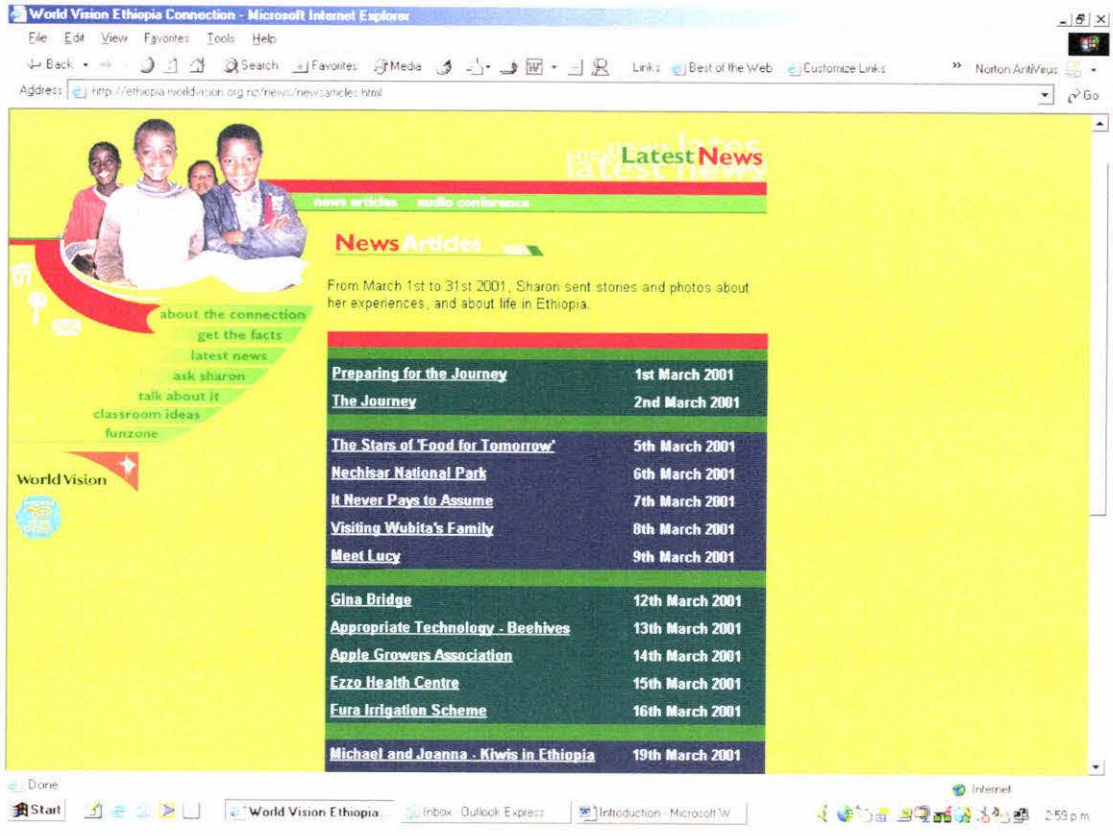

Figure 1.2 *Ethiopia Connection* Latest News page

The travelling teacher also communicated through weekly audioconferences and faxes (see Appendix II) and by answering students' questions. These were categorised into questions about Ethiopia, about the Saatusa community (where the family from the folder and video lived), about hunger and about World Vision's work. Figure 1.3 shows one of the 58 pages of answers to questions about Ethiopia.

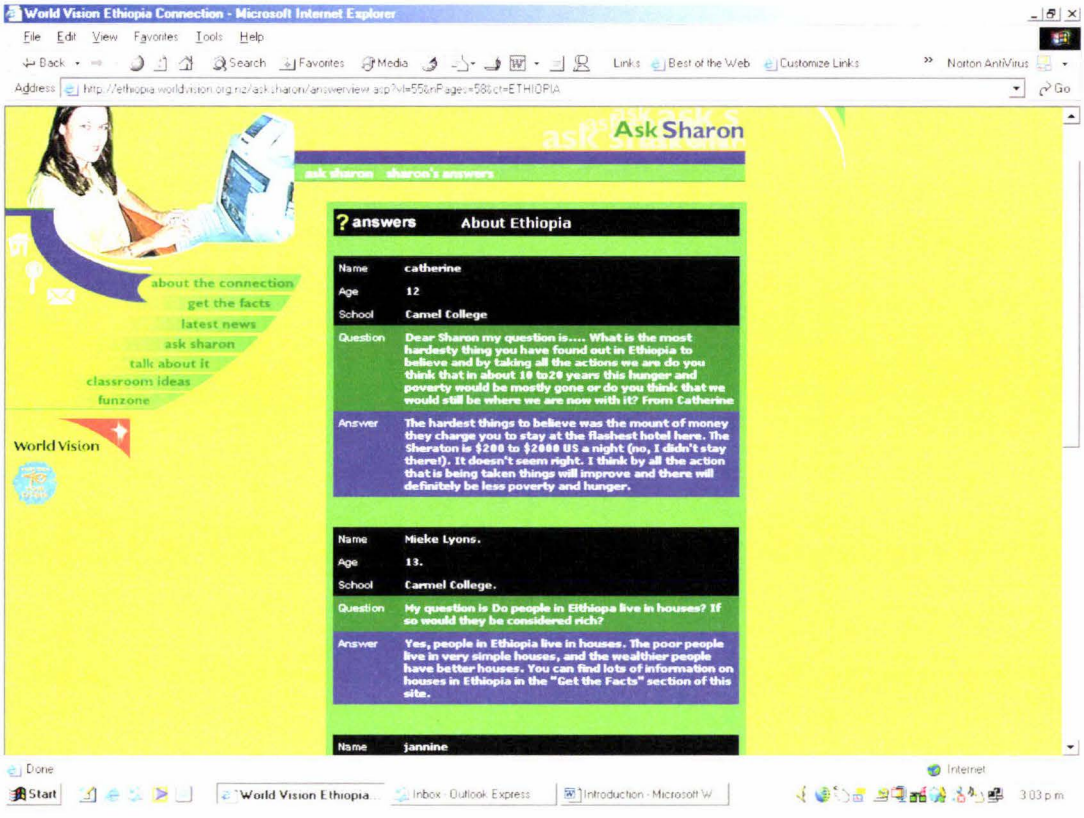

Figure 1.3 *Ethiopia Connection* Ask Sharon page

As well as communicating with the travelling teacher, students could also communicate with young people in Ethiopia. This happened through a Get in Touch section, where students could send personal messages to three children in the Saatusa area, including a brother and sister from the video family. Students could also discuss issues among themselves in the Discuss the Issues section. Some students in a middle-class school in Addis Abbaba, the capital city of Ethiopia, joined in these discussions. Figure 1.4 shows some of the messages sent by the Ethiopian students, asking about life in New Zealand.

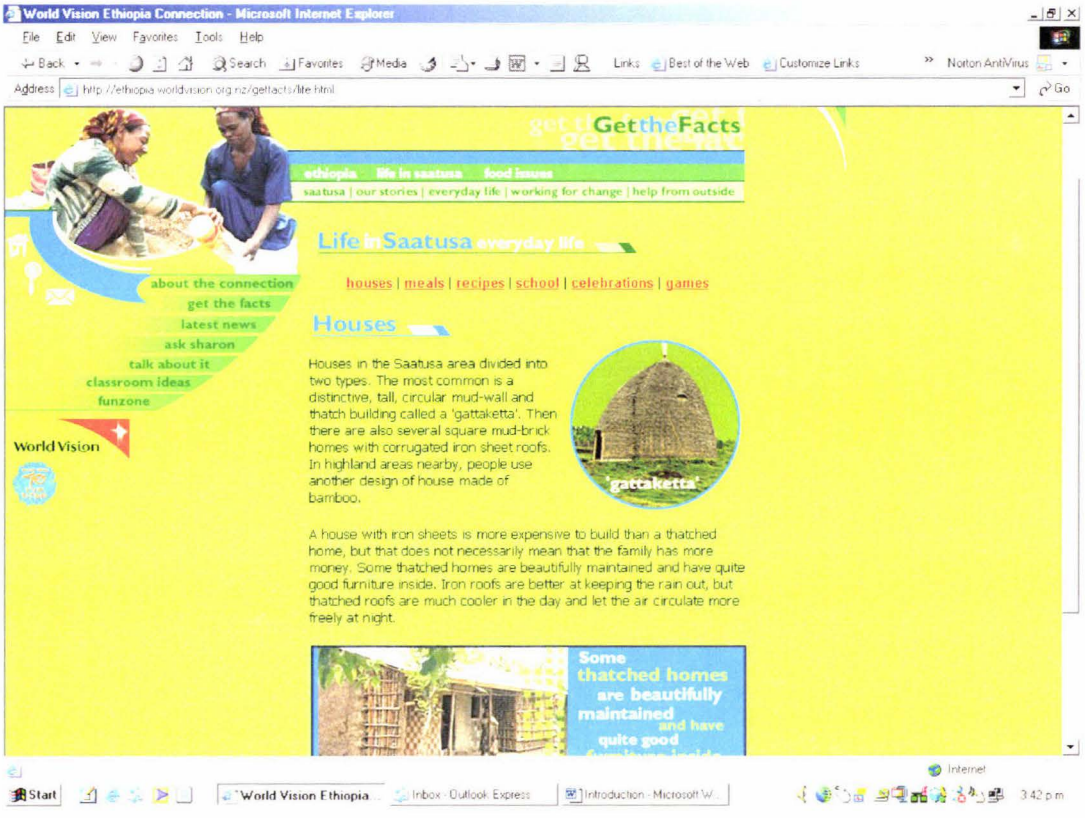

Figure 1.5 *Ethiopia Connection* sample Get the Facts page

1.2 What is a Virtual Field Trip?

Having described the *Ethiopia Connection*, it is helpful to put it into context among the various types of internet resources that are available for classroom use. Some of these resources are suited to an information metaphor. For example, a teacher may set students a task of researching a topic using the World Wide Web (Berson, 1996; Vanfossen, 2001). Students may find some of their information on websites designed specifically for educational use, but may also use websites set up by commercial, government or interest-based organisations. Other internet resources fit a communication metaphor. Riel and Fulton (2001) describe several different ways to use email to develop what they refer to as "learning communities", in which students in different schools, cities or countries share ideas with each other, and/or with relevant experts. Communication technologies can also be used to allow students who are geographically separated to work together to complete a

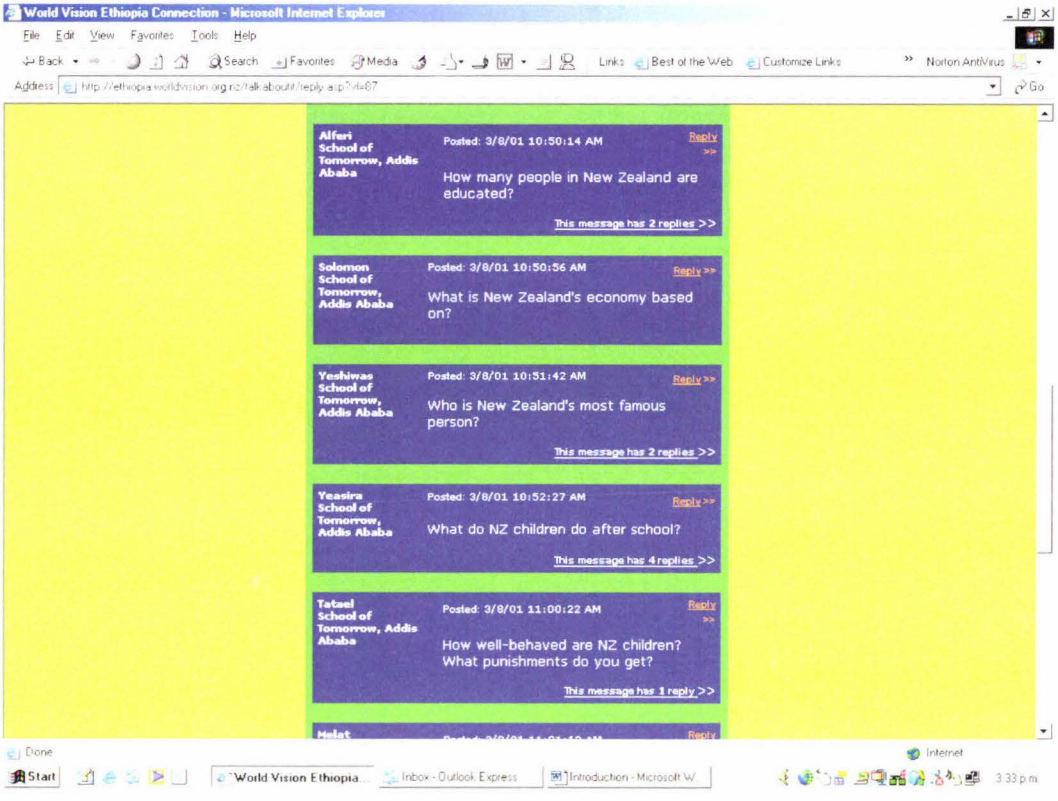

Figure 1.4 *Ethiopia Connection* Discussion page

As well as the communications sections, students could take part in a weekly site poll, solve photo puzzles, submit their best work or accounts of classroom activities to go on the website or learn about life in Ethiopia through an extensive Get the Facts section. A sample page from this section is shown in Figure 1.5.

joint project, such as a newspaper or even a concert (Moss, Amodeo, Bullowa & Detjen, 1997).

Another major way of using the internet in classrooms involves the use of websites that have been specifically designed for the purpose. These web-based programmes are often referred to as "virtual field trips", because they aim to approximate in electronic form the experiences and learning that students would have on a real field trip. The term "virtual field trip" has been used in two distinct ways – broadly, to cover any website giving information about a place, and more narrowly, to refer to an online project that allows students to follow a real journey or event as it happens.

The broader definition of a virtual field trip is widely used (see Bellan & Sherman, 1998; Cooper & Cooper, 1999; Rice & Wilson, 1999; Stainfield, Fisher, Ford & Solem, 2000). In this broad definition, a virtual field trip is any "opportunity to visit a place electronically for authentic learning experiences" (Nicholson, Fletcher & Hovell, 2001, p.3). Many websites included in this broad definition are museum sites, with photographs, maps, descriptions, video footage and other web-based resources that allow students to electronically access information available at the museum without the cost of travelling there. The narrower definition of a virtual field trip focuses on a real-time journey or event, which students can follow via the internet (Willis, 1999). These time-bound, journey-focused internet programmes are also referred to as virtual expeditions (Green, 2001), electronic appearances (Harris, 1998) or live broadcasts (Nicholson, Fletcher & Hovell, 2001). Essentially, students can "experience" a place by following the travels or work of a person who is physically there. During a specific time period, this person becomes the focus for learning, communicating with students via diary entries, photographs, maps and other resources posted on an ever-changing website. Often, this communication can be two-way, with students asking questions or holding discussions with the traveler. It is this narrower definition of a virtual field trip that best describes the *Ethiopia Connection*.

Chapter Two: Literature Review

This chapter reviews contemporary education literature as it is relevant to the *Ethiopia Connection*. In the past, descriptions of technological programmes and innovations in education have often failed to locate these programmes within the mainstream literature on learning and teaching. Yet learning theory is an essential basis for the design and evaluation of any educational programme, since effective innovation must learn from the best thinking and practice of the present and the past. For this reason, a review of the relevant literature forms an integral part of this research, both in understanding the principles behind the *Ethiopia Connection*, and in designing an effective evaluation of the programme.

Five major aspects of current teaching and leaning theory have been particularly important in the development of the *Ethiopia Connection*, and are therefore relevant to its evaluation. These aspects are (a) contemporary learning theory, specifically social constructivist theories; (b) the problem of inert knowledge; (c) the cognition/affect interface; (d) the role of computers in learning and (e) the use of computers and the internet in social studies. Each aspect is briefly outlined, with its implications for the design and evaluation of the *Ethiopia Connection*. These implications are then collected into a diagram that summarises the main requirements from learning theory as they impact on the design and evaluation of the *Ethiopia Connection*. In the next section, the current literature is examined for evidence of other evaluations of internet-based programmes in social studies. This provides important background to the need for the present evaluation. Lastly, the aims of the evaluation are outlined, leading to the research questions that will guide the evaluation process.

2.1 Contemporary learning theory

Although there are many current theories of learning, they all have one thing in common – to a greater or lesser extent, all accept a view of learning as construction of knowledge.

The concept of learning as construction derives from two main sources – Piaget's image of the child actively constructing his or her view of the world, and the representation and schemata theory of cognitive psychology (Marshall, 1996). According to constructivism, people do not absorb information passively, like a sponge. Rather, they actively create meaning from their experiences, searching for patterns, fitting new information with old, aiming always for understanding (Good & Brophy, 1995; Marshall, 1996; Richardson, 1994). Through this process, the learner's concepts of the world become ever more complex and, in some sense, accurate.

Within constructivist theory, though, there are many variants. One way to make sense of the variety of constructivist theories is to imagine two main axes along which the theories vary (Good & Brophy, 1995; Marshall, 1996). In this construct, the first axis classifies theories by the way they see knowledge. At one extreme, empirical constructivists see the world as fixed and knowable. The aim of learning, then, becomes one of understanding the world as it is. The teacher's role, at least to some extent, becomes one of ensuring students construct the correct view of the world. Most cognitive constructivists would fit towards this end of the continuum. Within this cognitive constructivist view, recent developments in theory and research have emphasised the importance of learners using, and teachers consciously teaching, cognitive strategies and metacognition. This involves students thinking about learning, incorporating strategy knowledge and an awareness and monitoring of their own learning progress (Pressley & McCormick, 1995).

At the other epistemological extreme, radical or experiential constructivists see the world as essentially unknowable. Even if a "right" answer exists, we can never be sure that we have it. Thus, learners should construct their own view of the world based on their experiences, but the teacher should not judge this view. Even after instruction, each student in a class is likely to have a slightly different concept, each just as valid as all the others – even the teacher's (Good & Brophy, 1995; Matthews, 1995; Phillips, 1995).

In addition to the theorists occupying each extreme of this axis, many others hold views that combine aspects of the two described here. At all points along this "view of

knowledge" axis, a key point of agreement is the importance of students' prior knowledge in learning. Whether knowledge is seen as absolute (as in empiricist views) or relative (as in radical views), all theorists recognise that the extent and type of knowledge a learner has at the start have a profound effect on the learner's final state of knowledge and understanding (Leinhardt, 1992; Yates & Chandler, 1991).

The second major axis along which constructivist views may be seen as varying is the individual – social – cultural continuum (Good & Brophy, 1995; Marshall, 1996; Richardson, 1994). At one end, the cognitive and radical forms of constructivism just examined emphasise the individual learner's efforts to understand the world. While learning from others is not denied, it is not a major part of theory or practice (Richardson, 1994). Towards the middle of this axis is the social constructivist view. In this view, learning is essentially a social process. Children learn by interaction with others (Good & Brophy, 1995; Marshall, 1996), for example by watching them as they perform tasks, by discussing concepts, or by working together. Within this view, there is a swing away from discussing only teacher-child interaction, towards a major emphasis on the role of peers (Hatano, 1993).

The other end of this continuum is occupied by sociocultural theory, modelled on Vygotsky's ideas of the importance of cultural and historical context on learning (Cole & Wertsch, 1996; Marshall, 1996). This theoretical position recognises that the social and physical structure of classrooms, and the definition of valuable learning, are a product of human interaction at a societal level – that is, they are culturally constrained (Cole & Wertsch, 1996; Rogoff, 1993). Sociocultural theory has contributed a number of important concepts to current educational thought. The first is that of psychological mediation put forward by Vygotsky (Crook, 1994) and Feuerstein (1980, cited in Ryba, 1989), in which psychological tools such as words, diagrams and whole language systems act as mediators, helping us to interpret our world, and to control our own psychological activities. These psychological tools are cultural artefacts, and must be learned from other people, so that the very nature of cognition is revealed as essentially cultural and social, at least in origin (Crook, 1994).

A second important concept is Vygotsky's zone of proximal development (Crook, 1994; DeCorte, 1990) - the recognition that students can achieve at a higher level when working with an adult or a more capable peer, thus bringing more complex tasks within their reach. This "tutor" does not perform the task for the student, but provides prompts and clues which help the student progress, modelling the process, assisting where necessary, to guide the student's efforts and extend engagement so that success is possible (Crook, 1994). According to Vygotsky, everything we learn, including internal cognitive strategies like analysis, planning and questioning, starts in social interaction like this, and only when we have mastered a skill in collaboration with a "tutor" can we move on to become independent in that skill.

Sociocultural theory's emphasis on the importance of context in learning has also led to the idea of situated learning (Brown, Collins & Duguid, 1989). This theory argues that learning is tied to the context in which it occurs, and so concepts learned in the classroom are unlikely to be transferred to other contexts. These theorists propose the use of authentic activities that are matched as closely as possible to the use of the skill or concept in the "real world". Another outcome of situated learning theory is the model of cognitive apprenticeship.

Each of these educational theories has something to contribute to our understanding of learning, but they also have their drawbacks. For example, situated learning theory has been criticised as being inconsistent with the body of evidence (Anderson, Reder & Simon, 1996) and as leading to narrow, restricting forms of education (Wineburg, 1989). Radical constructivism has also been the focus of criticism, on the basis that, if all knowledge is relative, there is little point in teaching anything at all (Matthews, 1995; Phillips, 1995).

With these criticisms in mind, the *Ethiopia Connection* is based on a social constructivist model, because of its acknowledgement of the importance of learning with and from others – peers and outside "experts" as well as teachers – and its empiricist concept of knowledge. The main implications of social constructivist theory for the design and evaluation of the

Ethiopia Connection are to encourage active learning and to provide opportunities for students to work cooperatively with each other, and to interact with their teachers and others during learning.

All forms of constructivism emphasise the active learner. From this point of view, the *Ethiopia Connection* needs to encourage learners to engage with the material at hand, processing it at a deep level (Anthony, 1996; Biggs, 1991; Rosenshine, 1995). Activities and resources should give students opportunities to discover concepts and skills for themselves (Brooks & Brooks, 1993; Hiebert et al, 1996; Savoie & Hughes, 1994); to give students choices so they become more involved and motivated (Brooks & Brooks, 1993); to transfer power to students, especially for the control and evaluation of their own learning (Brooks & Brooks, 1993; Hiebert et al, 1996); to focus on understanding (Anthony, 1996); and to challenge students to higher levels of thinking through open questions, use of cognitive language and manufacturing contradictions (Brooks & Brooks, 1993).

Social constructivists talk of the classroom becoming a "learning community", in which students support each others' learning (Glaser, 1991; Palincsar & Brown, 1984). The teacher's role becomes one of facilitator, rather than provider of knowledge (Biggs, 1991), while students often work together in cooperative groups. Examples of methods that aim to facilitate social interaction are Palincsar and Brown's (1984) reciprocal teaching, King, Staffieri and Adelgais' (1998) peer tutoring and Savoie and Hughes' (1994) problem-based group learning. A programme such as the *Ethiopia Connection* can have little direct effect on the processes within individual classrooms. However, teacher instructions and activities can be written to encourage interaction among learners, with students working together towards common goals. Also, the programme can give opportunities for students to work with members of a wider learning community, incorporating students from other classrooms who are involved in the programme and even some of the people the students are studying. Thus, students are able to learn through social interaction with experts in the field they are learning about.

2.2 The problem of inert knowledge

The next aspect of educational theory that informs the *Ethiopia Connection* is the problem of inert knowledge. Although constructivist theory challenges teachers to create opportunities for active learning, there is still concern that many classrooms do not reflect this model, and that much learning remains inert, doomed to be unused outside the classroom. As far back as 1929, Whitehead (cited in Bereiter & Scardamalia, 1985) noted that students could remember, express and sometimes even understand, a great deal of knowledge that they could not put to use. This inert knowledge is still a major concern today (Bereiter & Scardamalia, 1985; Biggs, 1991), since knowledge and skills learned in schools can only contribute to a student's future if applied in new situations. Meanwhile, Biggs (1991) complains that schools emphasise surface learning (for example, memorisation) rather than deep understanding.

From the beginning, inert knowledge has been seen as a direct result of school instruction (Bereiter & Scardamalia, 1985). Situated learning theory holds that we should not expect students to be able to transfer knowledge or skills learned in one setting to another (Brown, Collins & Duguid, 1989). Learning is linked to the situation in which it is learned, so we should not be surprised if students cannot take skills learned in mathematics and apply them to a geography problem, let alone use them while shopping. If new ideas are not linked to prior knowledge, they will be unconnected, and so will not be activated when relevant triggers are present.

Intentional learning theorists, such as Bereiter and Scardamalia (1989), have also implicated schools as the cause of inert knowledge. Rather than teaching higher-order thinking and learning skills, they suggest that schools unwittingly teach "school coping strategies" – methods of working which reduce the effort required for school tasks, but which are useless for real-world problems. Such coping strategies occur, according to intentional learning theorists, because most schools measure and reward only successful completion of discrete tasks, rather than clearly identifying long-term learning and development as their goal (Bereiter & Scardamalia, 1985; Cullen, 1991).

Researchers agree on what makes a teaching strategy suitable for encouraging learning for understanding and application. First, it is important for students to learn effective, relevant strategies (Boekaerts, 1997; Paris & Winograd, 1990). This must include knowledge about, and skill with, the strategy itself, plus information on when, where and why to use the strategy, not only within the current domain, but also in other areas (Paris & Winograd, 1990). Second, students need to take increasing control over their learning (Bereiter & Scardamalia, 1989; Boekaerts, 1997). Third, teachers must make learning goals explicit, model the process of goal-setting, and gradually give students more responsibility for setting their own goals (Bereiter & Scardamalia, 1989). Fourth, students need to be encouraged to evaluate their learning as it happens, so that they can adjust their strategies and/or effort level if necessary (Bereiter & Scardamalia, 1989; Paris & Winograd, 1990).

A number of teaching methods would seem to suit these criteria. For example, the importance of scaffolding instruction, especially in strategy instruction, is frequently mentioned (Bereiter & Scardamalia, 1989; Boekaerts, 1997; Paris & Winograd, 1990). The use of authentic activities and access to experts from outside the classroom is another powerful way to avoid inert knowledge (Brown, Collins & Duguid, 1989). Direct instruction and cooperative learning are also likely to be valuable (Paris & Winograd, 1990). What is important is that students gain active control of a wide range of powerful knowledge and learning strategies, that they see the relevance of their learning and that they have the opportunity to set goals and regulate their learning, to the greatest extent possible, considering their developmental level and experience (Bereiter & Scardamalia, 1989).

The *Ethiopia Connection* cannot control the way learning strategies and metacognition are encouraged by individual teachers. However, the programme can offer a wide range of authentic activities that ground learning in real-world situations so that students see the relevance of their learning to life outside the classroom. By setting up communication with outside experts, such as the travelling teacher, World Vision staff in Ethiopia, community members and children who are themselves facing the issues being studied, the *Ethiopia Connection* has the potential to give students motivations beyond pleasing their teacher.

The website itself can also contribute to learning for understanding and application, by giving students choices and allowing them to control the pace and focus of their learning.

2.3 The cognition-affect interface

The third aspect of educational theory that is important to the *Ethiopia Connection* is the role of emotion in learning. Research is beginning to recognise the interaction between cognition and affect (Cole, 1991; Ratner & Stettner, 1991). Frequently, students who have the necessary knowledge and skills to perform a task nevertheless do not do so (Ratner & Stettner, 1991). The missing factor is often motivation – they simply don't want to put in the effort required. There may be many reasons for this. For example, the student may not believe that their effort can bring success. They may not value success in this particular situation. They may not be interested in the task in question. In fact, motivation for learning is made up of several factors, including goals, attributions, and affect (Ames, 1992; Paris & Turner, 1994). All of these factors depend on both the individual and the situation, so that a student may be highly motivated to work on one task, or in one situation, but not in another (Paris & Turner, 1994). This means that good teaching that attends to goals, attributions and affect, should be able to increase student motivation. While this is largely a result of teacher behaviour, there may be ways that a programme like the *Ethiopia Connection* can create conditions that encourage such good teaching.

Students' learning goals are usually divided into two main groups – mastery and performance (Ames, 1992; Dweck, 1986; Pintrich & Schrauben, 1992). With a mastery goal, the student aims to improve, learn or reach a particular standard. The emphasis is on learning, and on the task at hand. With a performance goal, the aim is to score well in comparison to other students. The emphasis is on the student's ego, and on being seen to do well. Numerous studies (Ames, 1992; Dweck, 1986; Pintrich & Schrauben, 1992) have shown that students who have a mastery goal are likely to use more complex strategies, apply more effort, and persist even in the face of initial failure, while students who aim for performance see effort as a sign of lack of ability, and so avoid it. Mastery goals may also contribute towards a feeling of belongingness – a learner's perception that he or she is part

of the class and makes an important and active contribution to the life of the class (Ames, 1992). Young children usually start with a mastery goal, but their early school experiences can lead them to take on a performance goal, especially if the classroom environment has emphasised social comparison (Ames, 1992).

Attributions are students' explanations for the success or failure of their efforts (Paris & Turner, 1994), for example, "the task was too hard" or "I didn't try hard enough". In general, students learn best when they have an internal, unstable attribution for success – ie they attribute their success to effort and/or the use of effective strategies, and hold an incremental view of intelligence – believing that it can be developed through learning. However, if the student's attributions are external, for example, attributing success to luck, and believing that no amount of effort on their part will make any difference to their performance, the student is unlikely to expend effort on selecting effective strategies or persisting after initial failure.

Affect is used here to include students' interest in the task, their feelings about the situation and/or teacher, and the importance they attach to the task or subject. Students learn best when they have a positive relationship with the people, places and things that surround their learning (Carr, 1998). They need to be involved and interested in their learning (Carr, 1998; Ratner & Stettner, 1991), and this interest often leads to a mastery goal, and to increased effort (Ames, 1992). Unfortunately, there is evidence that many students have only minimal interest in social studies, and attach little importance to it in comparison to other subjects. For example, Shaughnessy and Haladyna (1985) found that social studies was one of the least popular subjects among students in North America. This attitude seems to extend to New Zealand students (Baldwin & Baldwin, 2001; Flockton & Crooks, 1998). Since as seen above, interest is linked to student learning, this low opinion of social studies among students is an important issue to address in social studies programmes such as the *Ethiopia Connection*.

All of the aspects of motivation work together (Ames, 1992; Pintrich & Schrauben, 1992). For example, if a child holds an incremental view of intelligence, he/she will be more likely

to have an unstable, internal attribution ("I succeeded because I work hard"), and will therefore see increased effort as worthwhile. The child will also tend towards a mastery goal, and will be motivated to work effectively even when success does not come immediately.

In summary, affect has a considerable effect on cognition and learning. Children learn best when they learn through strong, positive relationships, when they hold incremental views of learning, adopt mastery goals, believe that success comes through effort, and are involved and interested in the learning task. These things are not unchanging characteristics of the child. There is no such thing as a "highly motivated learner" who is consistently motivated in all situations. Rather, motivation and affect are dependent on both the situation and the child interacting together (Paris & Turner, 1994). This is good news for teachers, because it means that they can adjust the learning situation to increase the chance of positive affect and motivation.

Since students' beliefs and attributions about learning are so important to their motivation, classroom teachers need to be very careful about what they say and about how they evaluate learning. If, when a child does well, a teacher says "you're good at that", they risk reinforcing an entity view of learning. While the *Ethiopia Connection* cannot affect teachers' comments to their students, it can influence assessment styles, and these can give strong messages about success attribution. Evaluations against clear criteria, which are not comparative, support a mastery goal, while comparative evaluations support a performance goal (Ames, 1992), and therefore may lead children to avoid failure and reduce effort on difficult tasks – a counterproductive strategy.

The authority structures in a classroom also affect students' motivation. Highly teacher-controlled structures give the impression that school is about pleasing the teacher, and so reduce children's desire to learn for its own sake (Ames, 1992; Paris & Turner, 1994). The more we can give students the perception that they are in control, choosing their own goals for learning, evaluating their success or failure, and choosing their own tasks (or at least the way they do them), the more motivated they will be to learn and improve. If the *Ethiopia*

Connection can give students these choices, and can provide obvious reasons for learning tasks (such as writing a message in order to communicate with a child in Ethiopia), it may be able to influence student motivation and therefore maximise learning.

Learning tasks are another variable affecting students' affect and motivation. By designing open-ended tasks, where students can add their own creativity, or can perform the task in their own way, the *Ethiopia Connection* can give control to the students and so support a mastery goal. Turner (1992, cited in Paris & Turner, 1994) compared students' motivation across whole language and skills-oriented reading classes. All the teachers used a mix of open and closed task, although the teachers who are oriented towards whole language generally used more open tasks. Students' motivation levels reflected the type of task, rather than the class, with students consistently showing higher motivation and therefore more complex strategies and greater persistence, on open tasks.

The degree of difficulty of tasks is also important. Students need the right level of challenge, so that they can complete the task using the skills and information they have, but will need to apply some effort to do so. Tasks which are too easy give students the impression that effort is unimportant, and may even lead them to the conclusion that their teachers do not believe they would be capable of harder tasks. If the task is too difficult, though, students may become discouraged and conclude that no amount of effort can bring success. The key is to provide challenge, and expect high standards, but to provide appropriate scaffolded support, balancing challenge with success. With the wide range of age and ability levels among students involved in the *Ethiopia Connection*, it is necessary to provide a range of learning tasks and approachable language levels in the website and other resources.

Using a wide variety of tasks increases the interest level and therefore motivation. This is even more true if the tasks have a clear purpose which the students can see. Authentic tasks, which in some way reflect the use of knowledge in the world outside school have a clear purpose beyond simply "pleasing the teacher", and so contribute to a mastery goal

(Ames, 1992). With its links to real people and situations, the *Ethiopia Connection* has the potential to provide a variety of authentic tasks and learning experiences.

2.4 Computers in social constructivist learning

The fourth aspect of learning theory that informs the Ethiopia Connection is the research on the role of computers in education. The traditional view of computers in classrooms is the computer as tutor (Rushby, 1984; Taylor, 1980), in which students sit silently for long periods in vast computer labs, individually working through drill-and-practice exercises, with few opportunities to relate to their teachers or their peers. Clearly, when used in this way, computers are not consistent with a social constructivist view of learning, or indeed with the need to engage student interest or tackle inert knowledge. However, there is evidence that even stand-alone computers that do not have access to the internet can make a significant contribution, not only to the development of knowledge and cognitive skills, but also to affective and social development. Table 2.1 summarises four studies on the effects of computers on social and affective learning.

Table 2.1 Evidence of effect of computers on social development and affect

Study	Findings
Johnson, Johnson & Stanne, 1985a, 1985b, cited in Johnson & Johnson, 1986	Compared computer-assisted learning in cooperative, competitive and individualistic modes, and found the cooperative mode improved achievement on several measures, and had a beneficial effect on female students' motivation and attitudes towards computers.
Ryba, 1991	Observed that working cooperatively on computer-based cognitive tasks can help learning disabled students relate more effectively to, and be more accepted by, their non-disabled peers.
Cosden,1988, cited in Lai 1992	A survey in which primary school teachers reported mainly social and motivational benefits from computers, even though their use had been academic in nature.
Mevarech,1993	A comparison of cooperative and individualistic computer-assisted instruction by which showed that low achievers learned significantly more mathematics in the cooperative setting, and also gained in interpersonal relationships and social acceptance.

Thus, learning with computers can have a social aspect, and indeed computers may actually enhance the opportunities for cognitive and affective learning in the classroom. However, the social and cognitive benefits of computers are not automatic - they depend, not on the computers themselves, but on how they are used in the total learning environment. This may be what Clark (1991) was referring to in his controversial argument that it is methods, not media, which influence learning. When linked to old-fashioned, information-transmission methods of teaching, computers can give little or no social, or even cognitive, benefit (DeCorte, 1990; Rushby, 1984).

Sadly, earlier predictions that computers would bring about a revolution in teaching styles seem to have been overly optimistic. For example, the introduction of computers into four very different classrooms (Mehan, 1989) saw the teachers slotting the new technology into their previous teaching styles and classroom organisations. Although resource limitations forced all four classes to use the computers in pairs, so that all classes were using some

form of group-based learning on computers, the most significant gains in social and academic measures were seen only in the classes that used cooperative learning centres, rather than traditional whole class instruction. In a survey of 47 teachers, Dexter, Anderson and Becker (1999) found that, while computers sometimes made a change to more constructivist teaching styles easier, the catalyst for the change was professional development and/or the teachers' own reflection on their teaching style, rather than any impetus from the use of technology. Similarly, the *Ethiopia Connection* is unlikely to radically affect teachers' normal classroom management styles, so that its effects will depend at least partly on the ways particular teachers put it into practice.

With these cautions in mind, then, why should we expect computers, when used in certain ways, to have a special contribution to social and cognitive development? In addition to the empirical evidence outlined above, several specific characteristics of computer technology lend themselves to supporting cognitive and social development. Firstly, the physical features of computers, with their large screens, manipulative environment and clear focus of attention, make collaboration among students easier than paper and pen do (Crook, 1994). Secondly, features such as spell checkers, easy editing and clear text provide a safe environment for students to try out new skills, without fear of criticism (Ryba & Anderson, 1990). Thirdly, the communications capacity of computers provides a unique opportunity for students to collaborate with learners outside their own class, school, city or even country (Brown & Ryba, 1996) and to participate in authentic learning tasks, such as producing a school newspaper (Hill & Morris, 1993), exchanging e-mail messages with students or classes overseas (Probert & Beath, 1996; Trewern, 1996), or even participating in the production of an international publication (Mehan, 1989). It is this communications capacity of computers that is most clearly exploited by the *Ethiopia Connection*.

Overwhelmingly, the evidence shows that students gain the greatest social and cognitive benefits from computers when they are used in a collaborative learning context (Crook, 1994; Mevarech, 1993; Ryba, 1991), in which the teacher is a facilitator, not a transmitter of knowledge (Jones & Mercer, 1993; Lai, 1993), and in which students work on active, meaningful learning tasks (Grabe & Grabe, 1996; Lai, 1993). The *Ethiopia Connection*

will therefore need to encourage greater use of these three factors - cooperation, teachers as facilitators, and active learning. The programme can encourage cooperation by including collaborative activities in the teacher unit and by recommending that students use the website in small groups. By providing information to students online and through experts outside the classroom, and by encouraging inquiry and exploration, the programme can take the pressure off teachers to transmit knowledge, and so allow them to act as facilitators. Lastly, the programme can encourage active learning by creating opportunities for interactivity and by including activities that require students to discover, apply, analyse and evaluate knowledge at a deep level.

2.5 Social studies, computers and the web

The fifth aspect of educational theory that can inform the *Ethiopia Connection* is the literature on the use of computers and the internet in social studies education. As a subject, social studies is sometimes seen as ill-defined (Owens, 1997). *Social Studies in the New Zealand Curriculum* (Ministry of Education, 1997) gives no definition, but states that the aim of social studies is "to enable students to participate in a changing society as informed, confident and responsible citizens" (p8). This places the emphasis on citizenship education, and implies that students need knowledge ("informed"), skills ("confident") and values ("responsible"). Barr, Graham, Hunter, Keown and McGee (1997) divide this aim into two main goals, related to understanding the social world, and developing citizenship skills. Further, they emphasise the importance of integrating the content of social studies so that students can gain understanding and make decisions from a range of related perspectives. It is important that the use of computers and other educational technology within social studies should contribute to these essential goals (Sewell and Brown, 1999).

While computers have been used extensively in schools for some time, their use in social studies is less widespread and more recent (Braun, Fernlund & White, 1997; Sewell & Brown, 1999). Indeed in 1993, Martorella saw technology as a "sleeping giant in the social studies curriculum". It appears that early use in social studies focused on drill and practice applications, aimed at surface knowledge acquisition, with attempts to use computers in

developing higher-order thinking skills only coming later (Berson, 1996). However, computers have the potential to contribute significantly to the aims of social studies (Soler & Trewern, 1998). In arguing for a reflective inquiry model of social studies, which best fits the requirements of the social studies curriculum as well as social constructivist theory, Soler and Trewern (1998) claim that effective use of computers can facilitate reflective inquiry, giving reasons similar to those listed in the above section.

The internet, in particular, has the potential to link students with people in other places or contexts and, therefore, to contribute to social studies' focus on people. Many effective programmes facilitating this link have been reported in the literature. For example, the ICONS project used the internet to bring together hundreds of school-age "diplomats" from around the world to negotiate on global issues (Rottier, 1995). In the Youth Voices Project (Ramasubramanian & Logie, 1999), students used geographic data to collaboratively solve environmental problems. Here in New Zealand, the LEARNZ projects have linked students with several real-world events, including a group of scientists' work in Antarctica (Graham, Donaldson & Sommerville, 1997). Much closer to home, an e-mail-based project encouraged New Zealand children to research the origins of place names and legends in their area, and then share these with students in other locations (Alach, Powell, Powell & Ross, 1999).

All these programmes have, in their different ways, enabled students to experience people, places and events that they could not otherwise have accessed from their classrooms. At the same time, they have all incorporated the collaborative, active and facilitative contexts which were identified in the previous section as being essential to successful learning with computers. A number of writers have made recommendations for effective computer use in social studies. Table 2.2 summarises seven keys for the effective use of computers and other educational technology in social studies (extrapolated from the work of Braun, Fernlund & White, 1997; Sewell & Brown, 1999; Soler & Trewern, 1998; Ramasubramanian & Logie, 1999). If the *Ethiopia Connection* is to be truly effective, it needs to incorporate these keys in its design.

Table 2.2 Keys to successful use of computers in social studies

1	Use real-world, authentic problems and challenges wherever possible, to motivate students and provide meaningful, powerful learning experiences
2	Encourage students to work together in cooperative groups
3	Give students access to outside experts or wider learning communities
4	Provide a wide variety of learning experiences, using different senses and learning styles, and integrating computer-based activities with other classroom experiences
5	Integrate learning across the curriculum, to provide an in-depth study of a topic, rather than several different brief studies
6	Give greater control to students in planning learning and choosing activities
7	Teach in the role of facilitator or coach, rather than controller or transmitter of knowledge

Computers and the internet have great potential in the social studies classroom. One might, therefore, expect that teachers would be incorporating these technologies into their regular teaching, but this is often not the case (Alcock, Carrell & Ward, 1999). Many teachers feel under-prepared for using computers effectively in their classroom, either because they do not feel confident with the computers themselves, or because they do not understand clearly how they can be incorporated into social studies teaching (Berson, 1996). On a more practical level, teachers also do not always have easy access to computers and internet connections (Alcock, Carrell & Ward, 1999), with the class competing with other subjects for the use of a computer room, or students competing with one another for access to the classroom's one computer. The *Ethiopia Connection* will need to take these issues of professional development and access into account by providing easy-to-use teacher instructions and by ensuring that some aspects of the programme can be accessed without computer access.

2.6 Summary of requirements

Using the learnings from the five aspects of education theory outlined in this chapter, seven key requirements of the *Ethiopia Connection* were identified. These were used in the design of the programme, and can act as criteria for the evaluation. The seven requirements are summarised below.

- **Interactivity**, that is, the facility for students to influence the programme, rather than only being influenced by it; to encourage active learning and to increase student interest in the unit. This interactivity featured in the questions, messages, discussions and polls on the website, which allowed students to see their own words on the website, and to receive replies to these.
- **Active learning**, encouraging students to relate the topic to their own experiences, to apply and evaluate knowledge and to think through issues, to fit with constructivist theories. This featured in the wide variety of deep, student-centred activities in the teacher unit, poster and folder.
- **Choice**, to increase student interest and encourage a mastery view of learning. This featured in the variety of activities available on the website, and in the range of other resources (video, photos, diagrams, stories, audioconferences, practical experiences), ensuring that many different modes of learning were catered for.
- **Collaboration**, as is central to social constructivist theory. This featured in the communications among students in New Zealand, creating a virtual learning community, in the many co-operative activities; and in the encouragements to teachers to have students working in small groups when using the website.
- **Access to experts**, consistent with apprenticeship theories of learning. This featured in the links with the family visited, the travelling teacher, and with development workers in Ethiopia and in New Zealand.
- **Integration,** studying one topic in depth across several aspects, as is consistent with social studies recommendations. This featured in the wide range of related resources that provided enough information and activities to enable teachers to run broad, deep units of learning.

- **Authenticity**, relating learning to the "real world", to encourage transfer. This featured in real-time links with people in Ethiopia and in the opportunity for students to take action to help the people they were learning about, by doing the Forty Hour Famine to raise money for food security work in Ethiopia.

The *Ethiopia Connection* aims to form a bridge between young people in New Zealand and Ethiopia. The seven requirements may be seen as the support pillars of that bridge, as illustrated in Figure 2.1.

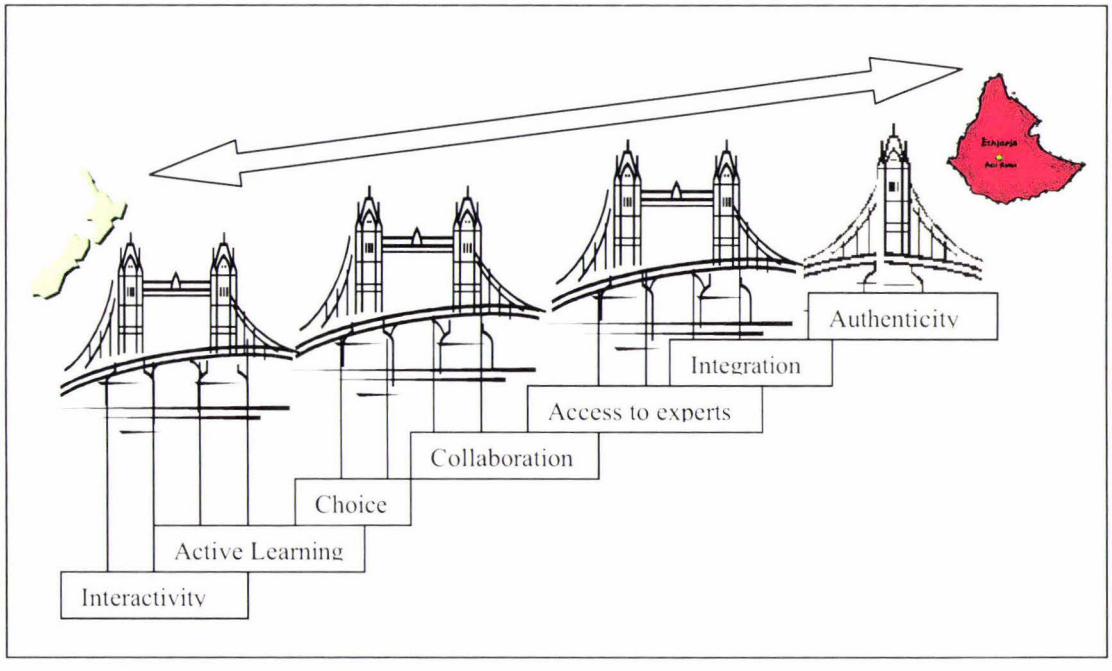

Figure 2.1 Requirements for the *Ethiopia Connection*: Support pillars for the bridge

2.7 Evaluations of internet-Based Programmes in Social Studies

Social studies teachers are now beginning to use computers and the internet more extensively in their teaching (Sewell & Brown, 1999). Several authors have outlined the potential benefits of using these technologies in social studies, and their arguments were discussed in Section 2.5. However, arguments and logic cannot replace evidence. Any decisions on allocating resources to computer and internet access in social studies

classrooms, on developing purpose-built websites for social studies teaching, or on selecting from among available internet-based programmes, should surely be based on evidence of the actual benefits of such programmes, rather than simply on extrapolation from educational theory.

Historically, the field of educational technologies has focused on description rather than on outcomes, and the advent of internet-based programmes appears to mirror this trend. Almost all of the current publications that describe either virtual field trips or the use of the internet in social studies are purely descriptive, with no evidence given of the effectiveness (or otherwise) of the programmes described. For example, Dale (2000) describes a unit in which three secondary classes used an asynchronous discussion site to simulate a UN meeting. The programme sounds interesting, but while Dale lists the assessments used to evaluate student learning, he does not give their results, or include any comments from the students or teachers involved.

Graham, Donaldson and Sommerville (1997) describe the popular New Zealand-based LEARNZ project which linked students with scientists in Antartica. In their outline of the programme, two teachers' comments are included, but there is no formal evaluation of the effectiveness of the programme on student interest or learning. Fletcher, Hovell and Wilson (2000) describe the previous World Vision internet programme, the Rwanda Family Connection, evaluating it against published criteria, such as interactivity, topicality, relevance to the curriculum, readability, depth of learning and ease of use. By examining the programme itself and interviewing the programme designer, they conclude that it fulfils their listed criteria. Their evaluation does not include measures of student achievement, or of teacher or student perceptions of the programme, so no conclusion regarding outcomes is possible. Many others, such as Cooper and Cooper (1999), and Holzbert (2000) list or describe a number of web-based projects which they suggest teachers might want to use in their classrooms, but any evaluation of these is against criteria, rather than from any evidence of their effectiveness in actual classrooms.

In a more extensive search of the literature, two articles were found that gave a fuller evaluation of a virtual field trip, or of a web-based programme in social studies. In the first, Alach, Powell, Powell and Ross (1999) describe an email-based programme in which students swapped information on the derivation of local place names. They include a number of student and teacher comments in their description, and have taken these into account in their suggested changes to future programmes. However, they have not reported any measures of student learning outcomes.

The second article, while it does not evaluate a social studies programme, is mentioned here because it is a rare example of an outcome-based evaluation of a virtual field trip. Spicer and Stratford (2001) compared a web-based programme for an undergraduate zoology course with a programme based on an actual field trip. The evaluation included both measures of student achievement, and of student perceptions of the programme. Students achieved equivalent grades on the two programmes, indicating that the virtual field trip was as effective as the actual field trip in supporting learning objectives. Students were positive about the web-based programme, but insisted that it should not replace physical field trips, but rather serve to prepare for or revise after a trip.

From this brief summary it is clear that there are very few full evaluations available on web-based learning in social studies. With the number of these programmes now available, and the ongoing nature of many of them, including the World Vision programmes, it is important to investigate them further. It is hoped that the current evaluation will contribute useful information on which teachers and programme designers can base decisions on the programmes' futures.

2.8 Research Problem and Rationale

This research aims to evaluate the *Ethiopia Connection*, for two key reasons. First, it aims to document the programme's impact against its objectives, as a record of the process and outcomes of an internet-based social studies programme. Secondly, the evaluation aims to improve future World Vision internet-based development education programmes, in order

to make the best use of the time and money put into these programmes by World Vision, and by the schools and teachers that participate each year. Specifically, it is hoped that the evaluation will identify ways to a) increase these programmes' acceptability to teachers and students; b) increase the programmes' effect on student learning; c) increase the programmes' effect on student and teacher attitudes; and c) enhance the success of the Forty Hour Famine.

The research questions are:

1. What do teachers want from a programme like the *Ethiopia Connection*?
2. How is the *Ethiopia Connection* used and to what extent does the programme design and process fit with designers' and teachers' expectations of it?
3. What are the student learning outcomes, in terms of knowledge, understandings, skills and attitudes (especially attitudes to people in need, interest in development topics, and in social studies in general)?
4. What are the outcomes for World Vision, in terms of registrations and dollars raised for the Forty Hour Famine, and in relationships built with schools?
5. What are students' perceptions of the programme, both positive and negative?
6. What are teachers' perceptions of the programme?
7. What are the perceptions of the programme among World Vision Ethiopia staff, and Ethiopian community members?

In summary, this chapter has outlined the five main strands of educational theory that inform the design and evaluation of the *Ethiopia Connection*. It has also summarised the existing evaluations of internet-based social studies programmes, to demonstrate the need for this study, and it has listed the research questions that guided this evaluation. Chapter 4 outlines the data collection techniques used to address each of these questions, but first, Chapter 3 examines the methodology of evaluation, and the choice of method for evaluating the *Ethiopia Connection*.

Chapter Three: Methodology

This chapter describes the methodology used in evaluating the *Ethiopia Connection*. It notes an important distinction between methodology and method. Methodology, as described, for example, by Bogdan and Biklen (1998), is the philosophical framework that serves as the foundation or justification for the method used. In choosing a methodology for this research it was necessary to examine the different approaches to evaluation within the research methods literature. Over the seven decades since Tyler "founded" the field of educational evaluation (Norris, 1990), a number of different types of evaluation have evolved. The first five sections outline and compare five major types of evaluation – traditional scientific, alternative, critical, technological and theory-driven evaluation. Section 3.6 gives the reasons why theoretical evaluation was chosen as the main methodology for evaluating the *Ethiopia Connection*.

3.1 Traditional Scientific Evaluation

In its first few decades, evaluation focused almost entirely on measuring the end product of educational innovations (Norris, 1990). Evaluators were employed by decision-makers in national government, local education authorities or schools. Their task was to demonstrate the success or failure of a programme in terms of how well it achieved its initial objectives.

Using the model of evaluation established by Tyler (described in Norris, 1990), traditional evaluators tried to approximate an experimental design, testing programme outcomes with standardized achievement pre-tests and post-tests, often with some kind of control group for comparison. They often ignored less quantifiable outcomes (such as changes in attitudes or patterns of interaction) and focused only on the measurable end product, without examining the process of reaching it.

Because of its resemblance to the kind of pre-test/controlled input/post-test model used in the natural sciences, traditional scientific evaluation has been variously described as

experimental (Anderson & Arsenault, 1988), natural scientific (Norris, 1990) or agriculture-botany (Elliot, 1991; Parlett & Hamilton, 1972). As Norris (1990) has observed, it seems to follow a positivist philosophy of science. Positivists claim that scientific knowledge is attained by first making multiple observations, which then lead to a theory, by the process of induction (Chalmers, 1976; Clark, 1997). Like positivism, the natural scientific model of evaluation emphasizes the collection of measurable, directly observable data, independent of any prior theory. For example, if the classes used in an evaluation showed a 10% improvement in achievement on a standardized reading test, traditional evaluators would seem to expect that the programme, when implemented nation-wide, would bring about a general 10% improvement in reading.

As well as following a particular philosophy of science, traditional evaluation reveals a specific view of the process of education – that learning can be likened to a manufacturing or agricultural model (Parlett & Hamilton, 1972). Students are all essentially alike; they are the input – the raw material or the seeds. Educators subject their students to a specific process, similar to the machines of a factory or the planting, fertilizing and cultivating of agriculture. The result is the output, which can be expected to be similar for all students. Thus, measurement of outcomes in a few students can be taken to give evidence for learning in the wider group, and the success or failure of a programme can be assessed by measuring a limited range of quantifiable changes.

With its emphasis on "hard data" and accurate measurement, and its positivist approach, the natural scientific model of evaluation uses mostly quantitative methods (Parlett & Hamilton, 1972). Changes in achievement are measured by standardized tests; if opinions and attitudes are examined they are measured by questionnaires, personality profiles and attitude ratings; and where individual characteristics are taken into account, they are usually objectively measurable ones, such as IQ and social class (Parlett & Hamilton, 1972).

The process of traditional scientific evaluation also reflects its positivist/natural scientific bias (Norris, 1990). A traditional evaluation begins with the setting of clear behavioural objectives which act as a guide to observation. Measures are then devised for each

objective, usually using the above standardized tests and ratings. These measures are used as pre-tests and post-tests, to establish the degree of change, and therefore the extent to which the objectives have been reached. Often a control group also receives the pre- and post-tests for comparison. This process results in a summative evaluation – an assessment of the final outcomes of the programme, with no attempt to document the process of change. Since the reliability of the evaluation depends on using the same measures for pre- and post-test, all objectives and measures must be decided beforehand. This can leave no room for flexibility should the programme be changed or should programme participants observe other effects which they feel should have been included in the evaluation.

This form of evaluation may be useful where a programme of limited range has been running for some time, is no longer being modified and has well-defined and measurable objectives. However, even in this rare situation, traditional evaluation is not necessarily as valid or reliable as it may appear (Norris, 1990). Errors and bias can enter through the choice of measures, the selection of participants, and the design of the objectives themselves, among other ways. The emphasis on measurability can also lead a programme to focus only on easily measurable objectives, ignoring more important "fuzzy" or longer-term changes. For evaluating a programme such as the *Ethiopia Connection*, which is one of an ever-evolving series, and which aims at goals beyond improvement on specific test scores, a more flexible evaluation process was necessary.

3.2 Alternative Evaluation

Parlett and Hamilton (1972) contrast traditional, or "agricultural-botany" evaluation with what they term "alternative evaluation". Where they describe traditional evaluation as treating students "like plant crops", they see alternative evaluation as recognising that education is a social activity, involving varied and unpredictable human beings. Alternative evaluation therefore uses a social-anthropological approach rather than the traditional agriculture-botany model (Norris, 1990), emphasising the viewpoints of all participants over the objective measures of one evaluator, and tracking the process rather than just the product of the programme. For example, Groundwater-Smith and White

(1995) argue for evaluation as a form of case study, so that specific student and context characteristics can be carefully observed and taken into account in the evaluation. Using mainly observation and interview, they examine the context of a programme, the process of change, and the reflections of participants themselves, usually recorded verbatim for added authenticity.

Similarly, Parlett and Hamilton's (1972) illuminative evaluation recognises the variability and complexity of educational situations, and relies largely on observations and interviews, with some questionnaire and test data where this is deemed necessary. Here evaluation is divided into three interlocking phases – (a) observation (of both process and product), (b) inquiry (a more directed examination of aspects seen to be most central) and (c) explanation (attempting to identify patterns of cause and effect). Participants are involved at all three stages, and their views form a central part of the evaluation.

MacDonald's (cited in Elliot, 1991) democratic evaluation also falls into this category, although as discussed below, there are also aspects of critical theory here. MacDonald sees evaluations as being divided on a political basis, into autocratic (imposing outside standards and using quantitative, widely accepted methods), bureaucratic (serving the needs of government agencies and based on their values and priorities) and democratic (taking no sides but serving and listening to all groups involved in a programme equally). Democratic evaluation aims for change by true consensus among all participants.

In its qualitative processes and its emphasis on the views of participants, alternative evaluation fits firmly in the interpretivist philosophy of science (Elliot, 1991). This philosophy holds that reality depends on the observer. To a radical interpretivist, all views of a situation are equally valid (Clark, 1997). Hence we see alternative evaluators using the views of participants, not merely as data to reflect the programme's effects on participant attitudes, but as a means of describing and judging the programme itself. Thus the views of different groups within the programme are presented as alternative descriptions of the programme itself, all of which are seen as equally valid.

Alternative evaluation suits situations in which the aim is to understand how different groups view a programme, allowing a detailed look at the way a programme works in a classroom, and how effectively it handles diversity and change. However, alternative evaluation does not yield a definitive judgment, or even an objective measure of success or failure, and as such it does little to support practical decision-making by programme designers, funders or users. There is significant risk of bias on the part of the evaluator, in the choice of participants to interview, the conducting of interviews themselves, and in the selection of comments to report from among the large number collected. This form of evaluation also fails to capitalize on the evaluator's experience and understanding of education, depending only on participants (many of whom may have no training in education, let alone research or evaluation) to arrive at views of the programme. These three disadvantages made alternative evaluation unsuitable for evaluating the *Ethiopia Connection*, since a major goal of the evaluation was to provide reliable information on the programme's process and outcomes as a basis for decisions regarding the viability and shape of future programmes.

3.3 Critical Evaluation

Carr and Kemmis (1983) identify three views of teaching – (a) the technical view, which sees education as a craft in which tradition is centrally important; (b) the practical view, which sees it as a social process which is too complex to restrict with concrete objectives; and (c) the strategic view, which sees it as essentially a political activity within a social and historical context. Critical evaluation fits with this third view of education (Carr & Kemmis, 1983). Like alternative evaluation, critical evaluation recognizes the views of all programme participants, but goes further, to examine and question the power relationships among groups, and to actively ensure less powerful groups are heard.

Critical evaluation is closely based on the philosophy of critical theory, which holds that science is not the only way of knowing, and that the critical scientist should look beyond technical and practical ways of knowing, to an emancipatory or critical view (Clark, 1997). This view aims at revealing the oppressive structures within social institutions, and at

enabling those with the least power to reflect on their situation and change it from within. Since critical theorists reject positivism, the methods of critical evaluation tend to be qualitative, rather than quantitative (Norris, 1990). These include group observation and discussion, often followed by a gradual, participatory process of change and further reflection.

Critical evaluation is helpful in encouraging programme participants to critically examine their situation, and the factors that have led to it. Where deep, structural change is looked for, critical theory helps participants see underlying systems and relationships, and especially differentials in power, which can then be questioned and possibly changed. However, critical evaluators should realize that social systems are complex and change is usually more difficult than may be anticipated. Critical evaluation is not always popular with programme managers or other decision-makers (Norris, 1990), and it does not provide the kind of clear and varied information needed in most evaluation situations such as the evaluation of the *Ethiopia Connection*.

3.4 Technological Evaluation

According to Norris (1990), a third form of evaluation is the technological, or social efficiency model. This form of evaluation aims to judge the value or worth of a programme, often in relation to its cost. Traditional evaluators try to stay objective, and therefore avoid judgment, preferring to measure outcomes and leave the conclusions to others (Stake, 1967). However, technological evaluators such as Stake and Scriven argue that evaluation should go beyond mere description to also include judgment (Stake, 1967). For Scriven, this means going beyond the programme's stated goals to assess the value of outcomes against external criteria of worth. In contrast, Stake evaluates a programme's worth against the expressed goals of its stakeholders (Isaac & Michael, 1981), and chooses the methods of evaluation based on its goals (Stake, 1980). Stufflebeam's CIPP (context – input – process – product) model (Isaac & Michael, 1981) also fits within the technological model, since it aims to judge the value of different alternative programmes or decisions.

Technological evaluation still depends largely on quantitative measurement using standardised tests, questionnaires and ratings. However, two differences can be seen from the methodology of traditional evaluation. Firstly, more qualitative or descriptive data collection techniques (such as classroom observations) are often used alongside the quantitative measures. Second, and in parallel, the evaluation includes attention to the context and process of the programme, rather than simply focusing on its outcomes (Isaac & Michael, 1981). This recognises that few programmes proceed as expected – they are modified, either consciously or unconsciously, by each educator who uses them. Similarly, each class, and even each student, reacts differently, according to the prior knowledge, attitudes and experiences they bring to the process. Thus it is necessary for programme evaluations to record the actual implementation of the programme, and compare it to the intended process (Stake, 1980).

Where traditional evaluation saw education as a manufacturing process, here the model is one of business, and the aim is cost effectiveness (Norris, 1990). A positivist view of science can still be seen in the technological evaluator's emphasis on gathering data in the absence of theory, but there is also an interpretivist influence discernable, especially in Stake's (1980) responsive evaluation. Stake's willingness to adapt the very methods of his evaluations to the views and ideals of the programme participants, and his concern to document the purposes of all the audiences in an evaluation, reflect aspects of this view.

Because technological evaluation examines the context and process of an educational programme as well as its outcomes, and includes in-depth descriptions as well as quantitative data, this methodology provides a particularly thorough form of evaluation, although but it can be very costly and time-consuming (Norris, 1990). Unlike traditional evaluation, technological evaluation can cope with changes in the programme, and with differences in implementation between programme sites. In many of its forms, technological evaluation recognizes the differing objectives of the various groups involved in a programme. However, the final evaluation still rests on the objective measures and observations of the independent evaluator, rather than on the experience of the participants. Care needs to be taken that these measures really do accurately correlate with the objectives

they aim to reflect, and that the results of the evaluation are not generalised beyond the population, specific programme forms and settings sampled.

Technological evaluation's dual focus on process and outcomes, its flexibility and its willingness to use insights from both participants and an independent evaluator, make this a potentially valuable methodology for evaluating the *Ethiopia Connection*. However, such an evaluation would only provide information about this specific programme. Since the *Ethiopia Connection* is one of a changing series, and since there are so many other similar internet programmes being used in classrooms without in-depth evaluation, it would be useful to find an evaluation methodology that incorporated the benefits of technological evaluation, and also provided more generalisable conclusions.

3.5 Theory-Driven Evaluation

While the previously discussed forms of evaluation all offer information about the programme being evaluated, they do not necessarily provide useful insights to different situations or related programmes. Chen's (1990) system of evaluation attempts to allow for generalizations, through the medium of theory. He emphasizes the need to examine the causal mechanisms that bring about change – linking the programme processes with its outcomes. Once these are understood, it is hoped that the knowledge gained will help in developing theory and shaping other similar programmes or education methods.

Chen's theory-driven evaluation starts by identifying the programme theory – the expressed or unconscious theory behind the design of the programme. This theory often consists of both normative and causative aspects. Normative aspects (the treatment, implementation environment and expected outcomes) prescribe how a programme should be conducted – expectations regarding who it is designed for, how it should be run etc. Causative aspects (the relationship between treatment and outcome, the intervening mechanism and how this applies to more general situations) describe the underlying relationships and mechanisms that make the programme work. The theory itself may be based on the ideas of the various stakeholders in the programme, as seen in the theory-driven evaluations of Wholey (cited in

Chen, 1990), or it may be derived objectively from prevailing education theories in social science, as advocated by Chen (1990). Once the programme theory is defined in all its aspects, evaluation aims to test it – to measure whether the programme matches its theory, and whether the expected relationships can indeed be observed.

Theory-driven evaluation reflects a post-positivist, and especially a Popperian view of science. According to Popper (1963), science, like all observation, starts with a theory, which the scientist then tests, actively trying to find flaws, or falsifications, so that the theory can be improved. The aim is to describe reality more and more closely by testing each subsequent theory against rigorous observations. Theory-driven evaluation's practice of starting with theory, and then of testing it using objective observation and measurement, with the aim of generalisable knowledge (ie a better theory) closely parallels the main points of Popperian philosophy.

Chen uses a wide range of methods in his evaluations, choosing any method that will test the theory at hand. There is an emphasis on quantitative measures, especially for the causative aspects of programme theory, but evaluations also use interviews and careful observation of process, especially to examine normative aspects (eg stakeholders' expectations of how the programme should run). Examining variations in the way the programme is implemented allows for greater insight into the validity of different aspects of the programme theory. Thus theory-driven evaluation is grounded in the views of both the independent evaluator and of all stakeholders, both prior to the programme, to determine the programme theory, and during and after the programme, to examine to what extent they felt the theory had been realised.

Theory-driven evaluation is ideal where the purpose is to gain generalisable knowledge that can apply in situations beyond the specific programme being evaluated. Because it encompasses many methods, it can provide most of the information available in traditional or technological evaluations, plus extend educational theory. However, because of its scope it may be more time-consuming and costly than other forms of evaluation, and its usefulness depends on the power and scope of the original theory.

3.6 Choice of Evaluation Type

The five forms of evaluation examined above – traditional, alternative, technological, critical and theory-driven – demonstrate some of the range and variety of evaluation styles being used in education. This parallels the wide range of uses to which evaluation is put – from examining a single classroom to a national programme; from measuring outcomes in fixed programme designs to discovering participants' views, furthering educational theory or even bringing about systemic change in power relationships. Taking into account the characteristics of the *Ethiopia Connection* (e.g. age, scope, variability) and the main aims of the evaluation, a theory-driven methodology was chosen for this research.

There were two main reasons for this choice. Firstly, the programme aimed to influence students and teachers in a number of ways, encompassing attitudes and values as well as more traditional cognitive changes. Evaluating these aims required a range of both quantitative and qualitative methods, for which either theory-driven or technological evaluation (with their openness to a range of methods) seemed more suitable than traditional (which emphasizes only quantitative measures) or alternative (which relies mainly on qualitative methods).

Secondly, the programme was varied and complex, one of a series in which some aspects change every year. Thus, it was necessary to choose an evaluation design that went beyond measuring a specific programme's success or failure (as traditional evaluation would), to one that would help identify areas to be preserved, discontinued or improved in future years. This criterion would rule out both traditional evaluation (which is not flexible enough to accommodate change) and critical evaluation (which does not usually give the type of information needed to judge the potential of individual changes to a programme). Of the three remaining methodologies, theory-driven evaluation was chosen because of its emphasis on providing generalisable information. Given that future World Vision internet programmes may vary widely from the current model, it is important that the evaluation

provides information that is general enough to apply to programmes that are similar to, but not the same as, the *Ethiopia Connection*.

Chapter Four outlines the way in which the theory-driven evaluation methodology was implemented to evaluate the *Ethiopia Connection*. The evaluation consisted of three phases: (a) establishing the programme theory, (b) examining programme implementation and (c) assessing programme impact. For each of the three phases of the evaluation, the chapter describes the method and data collection techniques used in that phase.

Chapter Four: Method

This chapter describes the method used to evaluate the *Ethiopia Connection*. The three main phases of the research are outlined. These phases incorporate a total of 14 data collection techniques designed to answer the research questions listed in Chapter Two and repeated in this chapter for convenience. Each research phase is then briefly described, including the data collection techniques, sample and analysis processes for each. Finally, the ethical considerations and potential limitations of the evaluation are discussed.

4.1 Choice of Data Collection Techniques

In keeping with the theory-driven methodology, the research design had three main stages. In the first phase, the teachers' expectations of the programme were identified in order to establish their normative programme theory and the indicators that they would see as pointing to success or failure of the programme. In the second phase, the running of the programme as it actually occurred was observed in order to see how well it fitted both this theory and prevailing educational theory (including current ideas on computer-based and web-based learning). In the third phase, the impact of the programme in terms of its goals and stakeholders' perceptions was examined. All three phases aimed to identify specific aspects or characteristics of the programme that were seen by stakeholders to be associated with success or failure. The aim of this process was to assess and/or develop theories about the relationships between inputs and outcomes in order to identify ways to maximize the success of the programme in future years.

Across these three phases, the data collection techniques were chosen to answer the various research questions. The research questions appeared in Chapter 2, but are reproduced here for easy reference:

1. What do teachers want from a programme like the *Ethiopia Connection*?
2. How is the *Ethiopia Connection* used and to what extent does the programme design and process fit with designers' and teachers' expectations of it?
3. What are the student learning outcomes, in terms of knowledge, understandings, skills and attitudes (especially attitudes to people in need, interest in development topics, and in social studies in general)?
4. What are the outcomes for World Vision, in terms of registrations and dollars raised for the Forty Hour Famine, and in relationships built with schools?
5. What are students' perceptions of the programme, both positive and negative?
6. What are teachers' perceptions of the programme?
7. What are the perceptions of the programme among World Vision Ethiopia staff, and Ethiopian community members?

In most cases, a specific research question might be addressed using several techniques, but equally a particular technique might contribute to several research questions. In general, where the research question was more important to the future shaping of the programme, or where the question was deemed more difficult to answer, a greater number of data collection techniques contributed to it. For example, attitudes are difficult to assess and are often misreported by participants (Bouma, 1996). This being so, several different techniques were used in answering the research question related to affective learning outcomes. These multiple data sources allowed maximum triangulation to increase the reliability of the overall attitude results. Data from teacher observation, poll answers and question/message analysis complemented data from attitude scales and self-reports so that the important factor of attitude change was investigated in several different ways. Table 4.1 summarises the data collection techniques that contributed to each research question.

Table 4.1 Data Collection Techniques by Research Question

Research Question	Data Collection Techniques	Sample
1. Teacher wants	Pre-programme teacher interviews	Sample of key informant teachers
2. How used	Registration forms	All programme participants
	Automatic website counts	All website users
	Classroom observation	Classes in focus schools
	Post-programme teacher interviews	Sample of key informant teachers
	Post-programme teacher survey	Sample of participating teachers
	Post-programme student survey	Sample of participating students
3a. Learning outcomes – cognitive	Student assessments	Students in focus classes
	Automatic website counts	Students sending questions to the site
3b. Learning outcomes – affective	Pre-programme student attitude assessments	Sample of students in focus classes
	Post-programme student attitude assessments	Sample of students in focus classes
	Post-programme teacher interviews	Sample of key informant teachers
	Post-programme teacher surveys	Sample of participating teachers
	Post-programme student surveys	Sample of participating students
	Post-programme student interviews	Sample of students in focus classes
	Automatic website counts	Students sending questions or poll votes on the site
4. World Vision outcomes	Famine results	All participating schools

Research Question	Data Collection Techniques	Sample
5. Student perceptions	Post-programme student interviews	Sample of students in focus classes
	Post-programme student survey	Sample of participating students
	Post-programme teacher interview	Sample of key informant teachers
	Post-programme teacher survey	Sample of participating teachers
6. Teacher perceptions	Post-programme teacher interview	Sample of key informant teachers
	Post-programme teacher survey	Sample of participating teachers
7. Ethiopia perceptions	Survey of Ethiopian staff	Sample of World Vision Ethiopia staff involved in programme
	De-brief of travelling teacher	Travelling teacher

In all, fourteen data collection techniques were used and these were organized into three phases as described in Table 4.2.

Table 4.2 Data Collection Techniques by Research Phase

Research Phase		Data Collection Technique
1	Establishing the programme theory	Pre-programme teacher interviews
2	Observing programme implementation	Registration data
		Automatic website counts
		Classroom observation
3	Assessing programme impact	Pre-programme student attitude assessments
		Post-programme teacher interviews
		Post-programme student interviews
		Post-programme student attitude assessments
		Student assessments
		Student feedback forms
		Teacher feedback forms
		Survey of Ethiopian staff
		De-brief of travelling teacher
		Famine results

4.2 Phase One: Establishing Programme Theory

The first phase of the evaluation aimed to find out what Chen (1990) referred to as the programme theory used by the teachers who had registered for the *Ethiopia Connection*. A participant's programme theory incorporates their idea of how the programme should run and what they think a successful programme might look like. Specifically, this stage focused on finding out what the teachers wanted from the programme – why they had registered, what their objectives were for the programme, what they would see as characteristics of a good or bad programme of this type, and what they would see as signs of success or failure. By examining the teachers' programme theory in this way, it was

hoped to identify several measurable indicators to use in evaluating the outcomes that were most important to these teachers. The data collection and analysis techniques used in phase one are summarized in Table 4.3.

Table 4.3 Summary of Phase 1 data collection

Data Collection Method	Sample	Research Question(s)	Type of Data Collected
Pre-programme teacher interviews	7 teachers selected from registered Auckland schools	What teachers want from the programme	Teachers' objectives
			Reasons for registration
			Perceived characteristics of good and bad units
			Possible measures of programme success

4.2.1 Pre-Programme Teacher Interviews

Several different interview styles are possible when collecting data from participants. The most common divisions among interview styles are based on the degree of structure (Bogdan & Biklen, 1998). At one end of the scale are highly structured, quantitative interviews, which follow a rigid set of questions and often constrain answers to a range of pre-set options. These are easy to perform and to analyse, and may be useful in certain situations (e.g. large surveys with very specific aims) but do not give participants the opportunity to raise issues of importance to them, or to express their opinion in their own words (De Vaus, 1991). At the other end of the scale are unstructured interviews, in which the participant is encouraged to talk about any aspects of the topic that may seem important to them. The interviewer may ask clarifying questions, or even bring up new aspects of the topic, but does not follow a pre-planned set of questions. Unstructured interviews may be useful in identifying aspects of a topic that may not have occurred to the researcher, especially where the participants have some expertise in the area, but analysis is difficult and there is no guarantee that participants will call to mind all aspects of importance during a single interview. Between these two extremes are semi-structured interviews, in which

the researcher may begin with a guiding list of (usually open) questions, but will also feel free to follow up on any other relevant aspects of the topic that may be raised by the participant during the interview.

It is also possible to divide interviews according to the main purpose (Anderson & Arsenault, 1998). Normative interviews aim to quantify the frequency of different ideas, attitudes or behaviours across a large population. Most market research would fall into this category. In contrast, key informant interviews focus on the knowledge and attitudes held by a few individuals whose experience or position gives them special ability to shed light on the topic in question. Meanwhile Powney and Watts (1987) divided interviews according to the locus of control, with on one hand the more common respondent interviews, in which the researcher retains basic control of the initiation and direction of the interview, and on the other hand informant interviews (not to be confused with key informant interviews above), in which the interviewer consciously relinquishes control to the participant, who can direct the course of the meeting to tell his/her story as she/he wishes.

While in theory the three classification systems are independent, in practice Powney and Watts' (1987) informant interviews tend to focus on participants whom Anderson and Arsenault (1998) would class as key informants and the interviews tend to be unstructured (from the point of view of the interviewer). On the other hand, normative interviews are almost invariably highly structured in order to make analysis possible over the large numbers of interviews required. At the same time, almost all structured and semi-structured interviews, whether normative surveys of large populations or key informant interviews with a select few, are forms of respondent interview, since they are controlled by the interviewer.

In the initial teacher interviews for this study, the aim was to explore a range of teachers' views about the programme, with the aim of gaining ideas for use in the evaluation, rather than to quantify the prevalence of any of those views. A large survey would not have given the flexibility required to explore each teacher's priorities, yet unstructured interviews

would have been difficult to analyse and might not have answered the relatively specific research questions about teachers' objectives and expectations. It was therefore decided to conduct semi-structured respondent interviews with a small "key informant" group of teachers. See Appendix III for the protocol used as the basis for these interviews.

The sample of "key informant" teachers was chosen to represent a range of different class levels and levels of experience with previous World Vision internet programmes. Since the pre-programme interviews had to be arranged and conducted during the three weeks between the start of the first 2001 school term and the start of the *Ethiopia Connection*, a time when the researcher was also busy with final preparations for the programme itself, travel time for the interviews had to be kept to a minimum. Therefore, only contact teachers in schools within 20 minute's drive from the World Vision offices could be included in the interviews.

From the 296 schools registered for the programme, 26 were potentially accessible within the study timeframe, being located within 20 minutes' drive from the researcher's workplace. Records of previous World Vision internet programmes were examined to identify the level of involvement these 26 schools had shown in each of the previous three programmes. These records showed which schools had registered for each programme, and of these, which had sent questions or messages or taken part in audioconferences. Current registration data showed the numbers and ages of students to be involved in the *Ethiopia Connection*, and the name of the contact teacher who would run the programme at the school. Based on this information, 12 contact teachers, representing a range of class levels, school types and levels of previous involvement with World Vision internet connection programmes were approached for an interview. Of these, seven were available in the timeframe required and agreed to the interview. The characteristics of the teachers chosen for these interviews are described in Section 5.1.

Interviewees were approached by telephone. A follow-up information sheet outlining the research and informing interviewees of their rights was faxed or emailed to participants before the interview (Appendix IV). All interviews were held at a place and time to suit the

participant (almost always at the school where the teacher worked) and interviewees were given a copy of the consent form to read, discuss and sign before the interview began (Appendix V). Interviews were recorded with the interviewee's permission, but the researcher also took notes as a back-up for transcribing difficult-to-hear tapes.

Interview transcripts are often difficult to analyse, because data contained in them is vast and qualitative, and so cannot be reduced to a few simple figures. It is necessary to somehow reduce pages of text to a relatively smaller number of themes and ideas, but this process is not straightforward. Different interviewees may say the same thing in different ways, or may say slightly different things in ways that make them sound initially the same. Bogdan and Biklen (1998) suggest some possible ways for developing coding systems to make sense of interview data. These include reading and re-reading transcripts to look for patterns and regularities in the data; using research questions or theoretical approaches to guide possible coding categories; and looking at types of codes (such as context, participant perspectives, process etc). Powney and Watts (1987) describe a less structured system involving physically cutting out sections of transcript and then sorting them into piles of related statements.

Since the pre-programme teacher interviews aimed to answer a relatively specific set of research questions, and since the semi-structured nature of the interviews suggested some possible related coding categories, a research question-based coding system was used to analyse these interviews. This was a three-stage process. First, the transcripts were colour-coded, with a different colour of underlining for passages dealing with each of the following categories:

- Characteristics of a good unit
- Why the school registered for the programme
- The teacher's hopes for the programme
- Things teachers would see as signs a unit was going well
- Things teachers would see as signs a unit was going badly
- What teachers thought students wanted from a good unit

- A catch-all "other" category for any comments teachers made that did not fit into any of the expected response types.

Next, each colour-coded section was re-read, and a brief summary of each separate comment was written in the appropriate colour in the margin of the transcript. Lastly, using these summaries, but checking back to the teacher's original comments, specific codes were devised to represent the different ideas raised within each coding category. Once these codes had been developed, the transcripts were checked to ensure that all comments were fully represented by a code.

These codes represented all the ideas raised by teachers during the interviews. Ideas expressed by only one teacher could still be useful in guiding the evaluation, but where the same idea was mentioned by several teachers, or several times by the same teacher, this was taken to indicate that it was more important to programme users. A tally table was therefore set up for each colour-coded category, to record the frequency of each coded idea across the interviews. These frequencies could not give a measure of the overall prevalence of different opinions, but gave some indication of the relative importance of ideas expressed by the teachers.

4.3 Phase Two: Examining Programme Implementation

The second phase of the evaluation involved observing how the programme was actually used, so that this could be compared to the programme theory derived from Phase One, and from the literature review. Programme use was examined in three main ways – (a) analysing the information given by schools when they registered for the programme to find out who (in terms of schools and students) had used the programme, (b) observing in classrooms to see how two teachers used the programme in their teaching, and (c) analyzing data collected automatically by the website to see how students used the computer-based part of the programme. The data collection and analysis techniques used in Phase Two are summarized in Table 4.4.

Table 4.4 Summary of Phase Two Data Collection

Data Collection Method	Sample	Research Question(s)	Type of Data Collected
Registration data	All registered schools	How programme is used	Number of schools
			Number of students
			Age range of students
			Geographical spread of schools
Automatic website counts	All users of the site, whether registered or not	How programme is used	Number of site visits
			Pages visited
			Time spent
			Site contributions by school
	All users of polls on site	Learning outcomes - affective	Answers to poll at beginning and end of programme
	All users of questions on site	Learning outcomes - affective	Level and type of questions asked at beginning and end of programme
		Student learning - cognitive	
Classroom observation	Classes in 2 focus schools	How programme is used	Use of site under different access conditions
			Student reactions

4.3.1 Registration Data

Participation in the *Ethiopia Connection* was free to all New Zealand schools, but in order to receive the free teacher unit (including passwords to use the communication sections of the site) schools needed to send in a registration form which asked for a range of information required for the efficient running of the programme. These forms were sent to schools in a variety of ways: by post and fax, inserted in educational journals, distributed at social studies meetings, advertised by email and posted on-line. The forms were made available to schools from October 2000 to March 2001 when the programme began, and

schools could register by mail, fax, email or online form. In addition to contact details, the registration form asked for the number and ages of students who would be involved in the programme, so that stories and audioconferences could be pitched to appropriate language and interest levels.

All details from the registration form were entered onto an Excel spreadsheet as each school registered, allowing for detailed analysis of the number and type of schools and students who took part in the programme. Using the registration spreadsheet, totals were obtained for the number of schools registered and for the total number of students those schools had indicated would be involved in the programme. The records were sorted to obtain the lowest and highest age of students involved, and the geographical spread of schools. Averages were electronically calculated for the age ranges of students involved.

4.3.2 Automatic Website Counts

Internet traffic is measured in several different ways. These include page views (a count for each time a page of the site is visited), visits (a count for each full visit to the site, regardless of the number of pages the visitor views) and time per visit (a measure of the number of minutes the average visit takes). Each measure is useful for different purposes, so all three measures were used to assess the *Ethiopia Connection* website use.

As part of the World Vision New Zealand website, the *Ethiopia Connection* site automatically collects data on the use of the site, but does not identify individual users. This information is available online to the site owners. In the capacity of a World Vision New Zealand employee responsible for running the *Ethiopia Connection*, this information was available to the researcher, and consent was obtained from World Vision to use these data.

Data were expressed as the total number of visits to the World Vision New Zealand site during the *Ethiopia Connection*; the average length of these visits; and the number of visits to each of the most frequently-visited pages within the *Ethiopia Connection* section of the

site. The total visits per month over the previous two years were also graphed to indicate the change in the number of visits to the site during the *Ethiopia Connection*.

Certain sections of the site also allowed for the automatic collection of data relevant to student learning and attitude change. These sections included the question and answer section, the message and discussion sections and the site poll. Manual counts were made of the number of questions, messages and discussion contributions made, and these were tallied by school, to give an estimate of each school's level of involvement with the internet-based aspects of the programme.

To add to the data available on student attitude change, the first 50 questions asked on the site were analysed for indicators of the questioner's attitude towards the developing world. These attitudes were divided into four main types - empathy, sympathy, indifference or judgment (these attitude types are described in section 4.3.1, pre-programme student attitude assessments). Any words or phrases indicating one or more of these attitudes were colour-coded and tallied to obtain the frequency of each attitude in the early questions. This process was repeated for the last 50 questions, and the two tallies compared as an indication of change in expressed attitude in students' questions during the course of the programme.

The site poll provided another indicator of attitude change. Students "voted" on the answers to five questions during the course of the programme. For each question, they chose from among five possible answers. The five questions were:

1. Whose fault do you think it is that so many people don't have enough food for their families?
2. Do you think people in wealthy countries like New Zealand and Australia should help people who are struggling in countries like Ethiopia?
3. Which of these do you think is the MOST IMPORTANT thing for the world to do to make sure everyone has enough food?

4. What have YOU decided to do to help make sure people everywhere have enough food to live?
5. Now that you've learned more about the issues, whose fault do you think it is that so many people don't have enough food for their families?

Each poll question appeared on the site for approximately one week. During that time, students could select their answer, and the site tallied these automatically. Votes on the weekly poll questions were totalled and graphed automatically by the website, giving the total number and percentage of votes for each of the five opinion options for each question. At the end of each week, students could no longer vote on the previous week's question, but could still see the results of previous polls. Each poll, therefore, gave an indication of student opinion at that stage of the programme. Taken together, the answers to the five questions gave an indication of several important aspects of student attitudes. Since questions one and five were almost identical, and the same five answer options were used for each, student responses for these questions could be compared to indicate any change in student opinion.

4.3.3 Classroom Observation

Since the classroom observations needed to be done during the four weeks of the programme, and since the researcher was involved almost full-time running the programme itself, time constraints required that these observations be done in just two focus schools and that these be situated close to the researcher's workplace. It was decided to select one primary and one secondary school which could both be expected to run the programme as much as possible as it was designed to be run. This involved choosing schools that were using the programme within the social studies programme, rather than as an information technology project; using both web-based and more traditional classroom activities; and running the unit over at least the four weeks of the live programme. This purposive, rather than representative sample, aimed to examine the effects of the programme when it was used in full, rather than to give a picture of the programme across all the schools which took part.

The focus schools were selected from among the seven schools interviewed for the pre-programme teacher interviews, described above. Where a teacher's answers indicated a high involvement in the programme, that they would be using it as part of their social studies programme, and that they would integrate computer-based activities with other related work, an approach was made for the researcher to conduct classroom observations. Informed consent was subsequently obtained from the teacher, principal and the parents of students in the focus classes. The ethical considerations are described further in section 4.5.

The researcher visited each of the two focus schools twice to observe lessons focused on the *Ethiopia Connection*. The times and dates for these visits were set by the contact teachers, who were requested to suggest a time during the first full week of the programme, and another in the second or third week of the programme, with a balance of web-based and more traditional activities over these two visits. The visits aimed to gain insight into how the programme was being used by teachers and students. The researcher was a privileged guest and stayed as passive as possible, interacting only where this was demanded by individual students. Written observations were recorded on a simple one-page form (see Appendix VI). These notes focused on the resources and activities the teacher chose to use, the apparent purpose for each activity/resource, student responses and difficulties experienced by the teacher or students.

The main goal of the classroom observations was to observe how teachers used the programme, and particularly the internet site in their classroom, and to identify any problems with implementation during the visits. The researcher reviewed the visit notes several times and noted ideas arising from them and possible areas where changes might be necessary to make the programme easier to use for students or teachers.

4.4 Phase Three: Assessing Programme Impact

The third phase of the evaluation aimed to measure the impact of the programme in three categories – (a) student learning, (b) student attitude change and (c) students' and teachers' perceptions of the programme. Student learning was measured through the normal classroom assessments in the focus classes. Some data on student attitude change was already available from phase two of the evaluation, but another measurement of student attitudes was conducted through formal attitude assessments, administered before and after the programme. The pre-test phase of this process aimed to gain a baseline measure of student attitudes, for comparison with the measures taken at the conclusion of the programme. Although this pre-test was done before the programme began, it is included in phase three of the evaluation because it contributed to measuring programme impacts, rather than programme theory. Programme participants' perceptions were measured using teacher and student interviews and surveys, reflection by the travelling teacher, a World Vision Ethiopia staff survey, and a measure of the effect of the programme on fundraising for the 20 and 40 Hour Famine. The data collection and analysis techniques used in phase three are summarized in Table 4.5.

Table 4.5 Summary of Phase Three Data Collection

Data Collection Method	Sample	Research Question(s)	Type of Data Collected
Pre-programme student attitude assessments	11 selected students in 2 focus schools	Learning outcomes - affective	Initial student attitudes
Postprogramme student attitude assessments	31 students from 2 focus schools	Learning outcomes - affective	Final student attitudes
Postprogramme teacher interviews	6 teachers from selected high-use schools	How programme is used	Parts of the programme used
			Reasons for registering
		Learning outcomes - affective	Perceived amount and direction of change

Data Collection Method	Sample	Research Question(s)	Type of Data Collected
			Examples of attitude changes
		Student perceptions	Rate of talk outside class
			Perceived aspects of interest
		Teacher perceptions	Most useful aspects
			Least useful aspects
			Problems and issues
			Suggestions for future
Postprogramme student interviews	8 selected students from 2 focus schools	Student perceptions	Most enjoyed aspects
			Least enjoyed aspects
			Rate of talk outside class
			Suggestions
		Learning outcomes - affective	Self-reported attitude changes
		WV Outcomes	Famine involvement
Student assessments	Students in 2 focus schools	Learning outcomes – cognitive	Scores in class assessments
Teacher Feedback Forms	53 teachers from registered schools	How programme is used	Class levels
			Reasons for registering
			Aspects used
		Teacher perceptions	Most useful aspects
			Least useful aspects
			Advantages of internet
			Disadvantages of internet
			Suggestions for future

Data Collection Method	Sample	Research Question(s)	Type of Data Collected
		Learning outcomes - affective	Perceived amount and direction of change
			Examples of attitude changes
Student feedback forms	176 students in registered schools	How programme is used	Aspects used
		Student perceptions	Most enjoyed aspects
			Least enjoyed aspects
			Rate of talk outside class
			Suggestions for future
		WV Outcomes	Famine involvement
Survey of Ethiopia staff	3 staff by email	Ethiopia perceptions	Time spent in Ethiopia
			Perceived benefits in Ethiopia
			Problems and issues
			Suggestions for future
Debrief of travelling teacher	1 travelling teacher	Ethiopia perceptions	Observed benefits in Ethiopia
			Time spent
			Perceived impacts on travelling teacher
			Problems and issues
			Suggestions for future
Famine results	Registered vs non-registered schools	WV outcomes	Famine registrations by school
			Dollars banked by school vs previous years

4.4.1 Pre-Programme Student Attitude Assessments

Since attitude change was a major goal of the programme, and since attitudes are notoriously difficult to measure (Bouma, 1996), several measures of attitude change were used. This reduced dependence on any one measure of student attitudes and allowed triangulation among several measures for greater reliability. One of the techniques used was an attitude scale, administered to a small group of students at each of the two focus schools, both before and after the programme ran. The pre-programme attitude assessment aimed to obtain a snap-shot of students' attitudes to the developing world before the programme began, so that this could be compared to their attitudes immediately after the programme finished.

Since the initial attitude assessments needed to be conducted face-to-face, time constraints required that only a small group of students be selected from each focus class. To give a range of students within this small selection, the students were chosen to represent both genders and a range of ability in social studies. The teacher was in the best position to judge students' ability based on previous units, so this selection was done by the teachers. In each class, the teacher selected six students – three girls and three boys, one each for three broad ability groups (high, medium and low) relative to their classmates. The assessments were then conducted one at a time during class time, in a small room near to the classroom. Each assessment took approximately ten minutes, and the assessments for the selected students were done one after the other during the same class period. On the day nominated, one of the selected students was absent, so that only five students completed the initial attitude assessment in that school.

One of the risks with measuring attitudes and values is that participants will often give the answer they think the researcher wants to hear, or the answer they think they ought to feel, rather than what they actually feel. This problem is especially acute with self-report techniques (Bouma, 1996). To try to avoid this problem, three question types were used in the attitude pre-assessment, the first of which did not rely on self-report.

Using a photograph of an African family scene (see Figure 4.1), students were asked a series of open-ended questions to elicit their feelings about the people and situation depicted in the photograph. This technique was adapted from one described by Mostyn (1985) in which participants described what they thought was happening in a photo or cartoon. The aim was to record students' spontaneous reactions to a photograph of a typical developing-world scene, selected to be neither extremely negative nor overtly positive in emotional tone. If they held views such as "all poor people are lazy" or "anyone with dark skin must be stupid", these views would be likely to influence their spontaneous comments.

Figure 4.1 Photograph used in attitude assessments

In analyzing the photo interpretation part of the attitude assessment, the researcher read and re-read the transcripts of the students' comments, and categorized each statement or part statement according to the attitude shown. Initially it was intended to code the comments into four attitude types – empathy, sympathy, indifference and judgment (see Table 4.6 for

a description of these attitudes). However, for some comments it was difficult to differentiate between an attitude of empathy and one of sympathy, so two further coding categories were identified – those of acceptance and respect. Both these categories could support an overall rating of empathy or sympathy, depending on the coding of other, more specific comments made by that student. By counting the number of statements each student made that reflected each of the attitudes, an estimate was obtained of that student's most prevalent attitude or attitudes.

After the photograph-based interview, students completed a more traditional written attitude scale aimed at identifying their attitudes in specific areas. In this way, responses could be compared between participants. The written scale is included in Appendix VII. The questions were based on survey ideas from Anderson and Arsenault (1998), Bouma (1996) and De Vaus (1991) and included two questions types. First, a series of attitude statements represented commonly expressed views about the developing world. Students were asked to indicate whether they agreed or disagreed with each statement on a five-point Likert scale. Second, a rating scale invited students to rank several possible ways of addressing poverty. The written scale ended with questions aimed at classifying data, such as age and gender, and previous participation in the 20 or 40 Hour Famine.

Opinion statements for the Likert scale and possible actions for the rating scale were designed to embody four major attitudes towards the developing world. These attitudes were chosen to represent the common types of attitude frequently expressed to the researcher and colleagues by both adults and children when discussing topics related to poverty or aid. For each attitude, at least three separate opinion statements or action options were included to avoid skewing results should students interpret a statement differently from the researcher's meaning. The four attitudes are characterised as empathy, sympathy, indifference and judgment. These are described in Table 4.6.

Table 4.6 Definitions of attitude types

Attitude	Definition	Examples
Empathy	Identifying with people in the developing world, seeing them as resourceful equals, and wanting to stand alongside them.	"The best way to deal with poverty is to help people help themselves." "We can learn from people who have less than we do."
Sympathy	Feeling sorry for those in need, wanting to help them but seeing them as largely helpless, just waiting for help from outside.	"We should help people who are suffering, because they can't help themselves." "I feel guilty that I have more than they do."
Indifference	Avoiding hearing or thinking about people in need, feel that the problems are unrelated to their own lives, and do not want to try to help.	"There is so much poverty in the world, it's impossible to make a difference." "It's not up to us to look after people on the other side of the world."
Judgment	Blaming others for being poor, attributing their problems to laziness, stupidity or pig-headedness.	"People are poor because they have too many mouths to feed – they should stop having children." "If poor people worked harder, or had more brains, they wouldn't be poor any more."

Having identified the four possible attitudes to be measured (empathy, sympathy, indifference and judgment), and designed specific statements in the written attitude assessments to embody each one, scoring of the written part of the attitude assessment was relatively straightforward. Students' answers for each statement were entered onto a spreadsheet. For the Likert scale, the answers were already in numerical form, with a score of one for "disagree strongly" up to a five for "agree strongly". For the rating scale, the student's rating among the five options was subtracted from six, so that an option scored five if the student rated it first, down to one if the student rated it last. The spreadsheet then added each student's answers for all opinion statements or options that related to each of the four attitudes, and divided this total by the number of statements/options related to that attitude. Thus each student received four scores, each between one and five, indicating the strength by which they held each of the four attitudes.

4.4.2 Post-programme Student Attitude Assessments

For comparison with the pre-programme attitude assessments, students in the two focus schools were asked to complete a shortened version of earlier attitude assessment. The questions used in the first part of this assessment were identical to those used in the written pre-assessment, so that comparisons could be made. Since this assessment had to be completed very soon after the end of the programme, at a time when the researcher was busy with programme wind-up, the photo interpretation was omitted, and the written assessment was administered by teachers. Several additional questions were added to evaluate students' level of interest in the programme. A copy of the post-programme student attitude assessment sheet is in Appendix VIII.

The contact teachers in the two focus schools were requested to administer the written assessment to all students in their class, and to mark the student code number onto the papers of the five or six students in each class who had done the initial attitude assessment, so that these could be examined for any attitude change. Unfortunately, in both cases, misunderstandings occurred, so that in one class, the assessments were only administered to the five students who had done the pre-assessments, and in the other class, all students did the assessment but the pre-tested students' papers were not marked, and so could not be identified for comparison. This reduced the usefulness of this aspect of the evaluation.

Since the attitude questions in these assessments were identical to the written part of the initial attitude assessments, they were analysed in the same way. Scores for the five students for whom an initial and a post-programme assessment could be identified were compared, but with such small numbers, no conclusion regarding programme effects on student attitudes could be made. Scores for the interest questions were analysed in the same way as the corresponding questions in the student feedback forms (see section 4.4.6).

4.4.3 Post-programme Teacher Interviews

The post-programme teacher interviews aimed to gain an in-depth view of teachers' perceptions of the programme. This encompassed six aspects: (a) goals, (b) the extent to which these had been achieved, (c) aspects that had worked well and why, (d) aspects that had worked badly and why, (e) perceptions of students' responses and learning, and (f) ideas for future improvements. As for the pre-programme interviews, a semi-structured interview was conducted with a small number of teachers whose classes had been highly involved in the programme.

Since the post-programme teacher interviews needed to be held immediately after the completion of the programme, and since the researcher was involved almost full-time winding up the programme itself, time constraints required that travel time for the interviews be minimal. Participants for the interviews were, therefore, selected from among those contact teachers whose schools were situated within 20 minutes drive of the World Vision office. Programme records were examined for the 26 registered schools within this area. Those schools that had taken part in the audioconferences, and/or whose students had sent the largest number of questions, messages and discussion contributions to the site, were taken as most highly involved. The contact teachers in the six most highly-involved, nearby schools were approached for an interview. As might be expected, these included the teachers from the two focus schools. All six teachers were available and willing to take part, so after informed consent was obtained, the interviews were conducted at places and times to suit the interviewee. Each interview took approximately 20 to 30 minutes and followed a semi-structured interview schedule (see Appendix IX). All post-programme teacher interviews were conducted within four weeks of the programme's conclusion, to ensure maximum recall on the part of the teacher.

Using the same method for categorizing and coding comments as was used for the initial teacher interviews above, teacher comments were classified and tallied under the following general headings:

- Objectives for the programme

- Obstacles and issues they faced in reaching those objectives
- Programme good points
- Programme bad points
- Ratings given for specific programme aspects
- Observed student attitude changes
- Suggestions for the future
- Reactions to the idea of a CD-based resource to accompany future programmes.

Teachers' responses to several demographic questions were also tabulated as a record of the teachers interviewed. These included the level, gender mix and ethnicity mix of the class they used the programme with, the decile rating, level and type of school and the level of school involvement in the programme and in the 20 or 40 Hour Famine.

4.4.4 Post-programme Student Interviews

To elicit students' perceptions of the programme, semi-structured one-to-one interviews were conducted with a small group of students. These interviews focused on students' level of enjoyment of the programme (compared to other social studies units), whether they felt their attitudes had changed, what aspects they enjoyed most and least, and suggestions for improving future programmes. These interviews had to be conducted in class time during the few days between the end of the programme and the end of the school term, so only a very small number of students could be interviewed. However, the aim was simply to add depth to the data obtained from the student feedback forms, so a small number of responses was considered adequate to explore the reasons and thinking expressed by the larger numbers of students filling in these forms. Eight students were selected for the interviews, four from each focus school. These students were selected by the teacher, who was asked to choose two boys and two girls, not already chosen for the pre-programme attitude assessments, representing high and mid-achieving students of each gender. Each interview took approximately 10 to 15 minutes. A copy of the interview schedule is in Appendix X.

Student comments were similarly classified, coded and tallied under the following headings:

- Programme good points
- Programme bad points
- Attitude changes to the developing world
- Attitude changes towards World Vision
- Things to keep the same for future programmes
- Things to change for future programmes
- Any other comments made by students.

4.4.5 Student Assessments

To assess student learning, teachers in the two focus schools were invited to provide copies of the classroom assessments they used as a normal part of their unit, along with the marks they had awarded to these assessments. Since only two focus schools were used, and these were at different levels, no attempt was made to standardize these assessments. Teachers were requested to use or adapt one of the assessment tasks listed in the teacher unit, since these had been designed to assess student learning in syllabus areas most relevant to the goals of the programme.

A meaningful measure of the programme's effect on student learning would have required considerable effort and resources, including the measurement of student achievement in a large number of schools and classrooms in order to see an effect of the programme materials, independent of the effects of different teachers and learning environments. This was clearly impossible, so the student assessments attempted only to gain an indication of student achievement in the two focus schools. The teachers' marks given to the student assessment were averaged across each class as a very rough measure of achievement against teacher expectation.

4.4.6 Student Feedback Forms

Feedback forms were designed to assess the attitudes towards the programme of a large sample of students who had been involved in it. The forms asked about programme usage, preferences, indicators of interest (eg talking to others about the programme), and ideas for future programmes. See Appendix XI for a copy of the student feedback form. Students could access the forms in two ways. The forms could be filled in on-line and automatically emailed from the site to the researcher for analysis. Hard copies of the same forms were also faxed to all registered schools, with a request to the contact teacher to copy enough forms for their students, ask them to complete them, and return the completed forms by mail. Since both modes required some effort on the part of the students and teachers, a small incentive was offered, in the form of a draw, resulting in one student chosen at random to receive a World Vision t-shirt.

The use of incentives is controversial, since there are ethical concerns, and the possibility of skewing answers in favour of the person or organization seen to be supplying the incentive. However, it is recognized that a small incentive may sometimes be necessary to obtain a sufficient response rate (De Vaus, 1991; Hartley 1982). In this case, similar incentives had been offered for students and teachers completing feedback forms after previous internet programmes. It was felt that this history would result in an expectation for a similar incentive for the *Ethiopia Connection* feedback, and thus a greatly reduced response rate if an incentive was not offered. To avoid bias, the incentive was kept very small, and it was made clear that the prize draws would be random, from among all those returning forms, regardless of their answers.

A spreadsheet was set up for each, with a column for each question, and for each aspect of the programme listed within a question. Where a student circled a programme aspect as "used", "liked" or "disliked", a "1" was entered in the appropriate column. The columns were then totalled, giving the number of students who had indicated each programme aspect for each question. Thus the scores for each programme aspect gave the frequency of use, number of students who liked, or number of students who disliked that aspect. For the

questions on the number of times the students had talked to others about the programme, brought items from home or used the site outside class time, a score of zero was entered for "never", one for "once or twice", and two for "three or more times". These scores were totalled for all students to give an indication of the level of student interest in the programme.

Two questions in the form allowed students to enter their own answers – one on their suggestions for changes to the programme, and the other a catch-all request for "other comments". Students' answers to these questions were analysed using a similar coding system to that used for the teacher and student interviews, resulting in a range of comments, with a frequency for each.

4.4.7 Teacher Feedback Forms

To gain an overall view of teachers' perceptions of the programme, teacher feedback forms were designed and made available to teachers. See Appendix XII for a copy of the teacher feedback form. The forms covered several aspects: (a) the class level using the programme, (b) reasons for registration, (c) aspects of the programme used, (d) aspects found most and least useful (and why), (e) teacher assessment of student attitude changes, (f) advantages and disadvantages of using the internet as part of the programme, and (g) suggestions for future programmes.

Teacher forms were made available on the website as well as being faxed to all registered schools. A small incentive (a draw offering one teacher at random the World Vision education resource of his/her choice) was offered to maximise the response rate. As for the student feedback forms, this continued a practice followed in previous World Vision internet programmes.

The teacher feedback forms were analysed using a spreadsheet and a coding system similar to those used for the student feedback. Categories used for the verbal comments were:

- Reasons for registration

- Aspects of the programme teachers felt students had most enjoyed
- Teachers' reasons for finding each aspect most useful
- Teachers' reasons for finding each aspect least useful
- Advantages of the internet presentation
- Disadvantages of the internet presentation
- Examples of student attitude changes
- Other comments not included in any of these categories.

4.4.8 Survey of Ethiopian Staff

The three Ethiopian-based World Vision staff who had been most involved with running the programme were sent a brief survey by email. The survey asked about the impacts of the programme on their personal workload, on the Ethiopian office, and on the families and community visited by the travelling teacher. This consultation with staff in the focus country is a normal part of World Vision internet programmes, and is an important way to ensure that staff and community voices are heard. The staff were asked to complete the survey within two weeks, and were sent a reminder where necessary. All surveys were returned by email, along with their consent for their answers to be used in this research. See Appendix XIII for the list of questions asked.

Ethiopian staff members' responses to the email survey were categorized and coded using a similar system to that used for the interviews. The categories used were:

- Amount of time put into the programme
- Problems/issues with the programme
- Benefits/positives of the programme
- Suggestions for the future.

4.4.9 Debrief of Travelling Teacher

A short time after the travelling teacher returned to New Zealand, the researcher requested a debrief meeting with her, which was a normal part of the programme. The traveling teacher was given an information sheet and written consent was obtained to use her comments in this research. The debrief aimed to ascertain the impacts of the programme on the travelling teacher as well as her perceptions of the impacts on staff and community members in Ethiopia. A list of general topics was sent to the teacher in advance by email, so that she could prepare her thoughts and bring to mind all aspects she felt were relevant, in preparation for the debrief. The debrief itself was held face-to-face in several meetings over the course of a one-day visit. The travelling teacher had made notes in advance, and referred to these occasionally during the interview. These notes were left with the researcher, who also took written notes of the teacher's verbal comments.

The travelling teacher's comments during the debrief were categorized and coded using a similar system. The categories used were:

- Amount of time put into the programme
- Problems/issues with the programme
- Benefits/positives for the travelling teacher
- Benefits/positives for people in Ethiopia
- Suggestions for the future.

4.4.10 Famine Results

When schools register to take part in the 20 or 40 Hour Famine, this registration is recorded on a World Vision New Zealand database. When schools bank the collected money, the total is automatically entered onto their record. This database includes records of Famine registrations and money collected by each school for each year since the Famine was instigated in 1976. The database also includes a record of the schools that have registered for the *Ethiopia Connection*, and for each of the three previous programmes. Computer

reports can be requested showing Famine registrations and banking by year for any specific group of schools.

In order to find out whether taking part in the *Ethiopia Connection*, or any of the other similar internet programmes, 20 and 40 Hour Famine results were requested for 1998, 1999, 2000 and 2001 for schools grouped according to their registrations for previous programmes. In identifying these groups, registrations for the first internet programme, the *Sunflower Connection*, run in mid-1998, were ignored, since this programme ran after the Famine for that year, and did not relate to the famine topic for either that year or the following one. Only registration for one or more of the second, third and fourth programmes (the *Mongolia Street Connection*, *Rwanda Family Connection* and *Ethiopia Connection*, respectively) were taken into account in classifying schools. This resulted in seven groups of schools.

Total bankings for each group of schools were compared for the years before, during and after the year(s) they took part in the programme. The same data were also totalled for all schools that registered for the *Ethiopia Connection* (representing the total for three of the above groups), irrespective of their involvement in other programmes, to give an overall effect of this programme on schools' Famine results. Since total banking for all schools increased only slightly over these years, any further increase during the years when schools took part in the programme were considered likely to have been related to their participation.

4.5 Ethical Considerations

It is important to ensure that the rights of all research participants are protected. These include the rights to protection from harm (including undue disruption), to confidentiality, to informed consent and access to results of research (Massey University Human Ethics Committee, 2000; New Zealand Association for Research in Education, 1998). Every effort was made to anticipate and resolve possible ethical issues. Due to the very early start date of the research (dictated by the timing of the *Ethiopia Connection* itself) it was not

possible to obtain formal approval from the Massey University Human Ethics Committee before the research began. However, an application was prepared which addressed the main ethical concerns (see Appendix XIV). On the basis of this application, the potential supervisor approved the research in consultation with the College of Education Ethics Committee.

Inevitably, classroom observation, interviews and other research activities cause some disruption to participants. All those interviewed or observed received an information sheet (see Appendix IV) and gave their written consent (see Appendix V). This study was designed to keep disruption to a minimum – working around interviewee's schedules, keeping forms brief, and integrating some assessments into normal classroom activities where possible. Many of the evaluation techniques were integral to the running of the *Ethiopia Connection* itself, or were a normal part of World Vision's evaluation of their programme. It was considered that the benefits of the research to the participants (in gaining an opportunity to reflect on their experiences and have their opinions heard) and to the wider community (in improving a widely used educational programme) justified any potential minor disruption.

Observing students and teachers in classrooms brings particular ethical problems. Participants have a right to be informed of the purpose and extent of observation, to decline to be observed if they so wish, and to not be disadvantaged should they decline. When the focus schools for the classroom observation were identified, the Principal and contact teacher were approached in person and given both written and verbal descriptions of the research. Once the Principal and teacher had read the information sheet and given their written consent, all members of classes observed were provided with an information sheet and consent form for their parents or caregivers to read and sign.

To ensure that no student was disadvantaged by declining to take part in the research, provision was made for these students to be omitted from observation records while still taking part in their normal classroom programme. If there had been more than three such students in any class, a different class would have been selected for observation. In the

event, no students or parents refused consent, so all students could be observed and could be considered for interviews and attitude assessments.

The assessment tasks used to evaluate student cognitive learning were set by the teachers involved as part of their normal classroom programme, thus integrating the research into normal classroom activities and student learning. Consent from students' parents to allow the researcher to see these assessments was sought and obtained as part of the overall consent to the research in the focus schools. Only assessments for those students who consented could be included in the analysis. Those who did not consent would still have been able to take part in their normal classroom programme, including the assessment, so they would not have been disadvantaged in any way.

The fact that all users of the internet are recorded, and that programme designers have access to figures on the numbers of visits, down to the pages visited, may not be widely known, so there is potential invasion of privacy here. However, this issue is common to all websites, and not specific to this research. Also, no individual visitor can be identified, and only aggregate totals are retained in the figures. Students' questions, messages and discussion contributions are visible on the internet site. This fact is made clear when site users submit their contributions, so they are public documents and there should be no invasion of privacy in analysing these questions.

There was a risk when obtaining feedback from World Vision Ethiopian staff that they might say only what they thought the researcher wanted to hear. In many African cultures it is not acceptable to criticize anyone who could be considered to be of higher social standing. The Ethiopian staff members were aware that some of the funding for their projects came from New Zealand. Their attitudes towards the predominantly European staff in the New Zealand office could also have been influenced by the history of colonialism. These factors might have tended to make the Ethiopian staff, consciously or unconsciously, think of the researcher as socially superior. They may therefore have been less willing to make negative comments. Every effort was made to counteract this tendency and to respect the Ethiopian staff's expertise and culture. Within the restrictions of distance

and finance, a close working relationship was established with these staff members, through email contacts and through the travelling teacher. Through these contacts, the researcher aimed to communicate that the Ethiopian staff members' expertise and knowledge were valued, that the researcher considered them to be at least equal colleagues, and that the researcher genuinely wanted to learn from their views, both positive and negative. The travelling teacher was also able to give feedback from what she observed of the impacts of the programme in Ethiopia, in case the staff did not feel they could report all their problems and negative experiences.

Participants' right to know the results of research was fulfilled through a newsletter to all schools that took part in the *Ethiopia Connection*, outlining the main conclusions from the evaluation (see Appendix XV). Evaluation conclusions were also shared in greater detail with the travelling teacher, and with the World Vision Ethiopia and World Vision New Zealand staff who were involved in the programme.

Confidentiality was preserved by ensuring that only the researcher saw the raw data from interviews, feedback forms, observations, assessments and attitude scales and that these items were stored securely. Schools and individuals quoted have been described by attributes and code name only, and details that could have identified a school or individual were omitted from all forms of reporting on this research. Notes from interviews, returned feedback forms, observation data, attitude scales and other raw data relating to schools or individuals were kept in the researcher's secure files during analysis. These raw data files will be destroyed once all forms of reporting have been finalised.

4.6 Potential Limitations

There are several areas of this research for which the sample size or choice of participants limited the confidence with which the results could be interpreted.

There was a potential conflict of interest in the researcher evaluating a programme with which she is so heavily involved. Where possible, data were triangulated, and the research

processes (eg questions, data collection techniques, analysis techniques) were checked by third parties to reduce bias. By asking a wide variety of people about their perceptions of the programme, data-based evaluations (which could be biased by the researcher's choice of questions and data collection processes) could be checked against the views of a range of participants and stakeholders.

The classroom observations involved only two visits to each of two classrooms. No two classrooms could be representative of the wide variety of environments in which the *Ethiopia Connection* was used. For example, both classes were in co-educational public city schools using the programme in social studies. Thus the observations cannot reflect how the programme was used in country schools, or within an Information Technology subject focus. The observations could therefore only provide pointers to some ways the programme was used in these particular classes, and how it might be improved for these particular uses.

The student and teacher feedback forms depended on voluntary return. Teachers and students who had been more heavily involved in the programme or who had a stronger initial relationship with World Vision, would be more likely to make the effort to return their feedback form. The small incentive may have counteracted this, as it would give a reason for some less-involved participants to return their form. However the feedback cannot be seen to be fully representative of all those who participated in the *Ethiopia Connection*.

There was no mechanism to prevent people voting on the same site poll several times, or entering answers they did not really agree with. Students voting were also self-selected, so would not have necessarily been a representative sample of all the students involved in the *Ethiopia Connection*. These results therefore need to be taken only as an indication of student attitudes.

The analysis of attitudes shown in the site questions has several flaws that preclude any meaningful conclusions from this aspect of the evaluation. The questions may have

reflected the topics the teachers were focusing on, the stories that had appeared recently on the site, or issues raised in the discussions, rather than any progression in attitude as a result of the programme. They are also from a very small, self-selected group of participants, and therefore cannot be taken to be representative of any larger group.

The attitude assessments were given to a very small number of students. The value of the post-programme attitude assessments was further reduced by the misunderstanding with teachers, so that only five students completed the assessment in one class, and in the other, there was no way to identify the students who had completed pre-programme assessments. Therefore, the data from the formal attitude assessments cannot stand alone, but must be interpreted alongside the data from the other measures of student attitude.

In summary, this chapter has described the process used to evaluate the *Ethiopia Connection*. It has also addressed the ethical considerations of the evaluation, and its possible limitations. A total of 14 data collection techniques made up three phases of the evaluation. Phase One served to establish the programme theory by examining what teachers wanted from the programme. Phase Two observed how the programme ran in practice, while Phase Three examined the impact of the programme and the perceptions held by the various stakeholders. In the following chapter, the results obtained from the three phases of the evaluation are presented.

Chapter Five: Results

This chapter describes the results obtained from the evaluation. These results are grouped under the three phases of the research; establishing programme theory, observing programme implementation and assessing programme impact. For each phase, the results are reported under the data collection techniques used during that phase.

5.1 Phase One – Establishing Programme Theory

Phase One of the evaluation aimed to establish the programme theory, the expectations that participants had for a programme like the *Ethiopia Connection*, in preparation for evaluating the programme against these expectations. This was done through interviews with a small group of teachers who had registered their class or school for the *Ethiopia Connection*.

5.1.1 Pre-programme teacher interviews

The seven teachers who consented to the pre-programme interview represented two secondary schools, two intermediate schools and three primary schools, all of which were registered to take part in the *Ethiopia Connection*. Of these schools, two were private girls' schools and the other five were co-educational public schools. Four of the schools had been involved with one or more previous World Vision internet programmes. All schools were in the Auckland area, due to the need for accessibility to the researcher. One teacher (at intermediate level) taught information technology, the two secondary teachers taught social sciences, and the others were classroom teachers responsible for the full range of subjects.

Teacher comments made during the pre-programme interviews were organized under seven headings according to main themes that emerged:

a. reasons for registering

b. characteristics of a good unit

c. hopes for the programme

d. signs a unit is going well

e. signs a unit is going badly

f. what students want from a programme

g. any other responses

Comments were further coded to identify specific points raised by the teachers under each heading. Most teachers made more than one comment in each category, so that the total number of responses in a category was always greater than the number of teachers. In some cases, teachers made the same point more than once at different stages of the interview. Where this happened, each comment was counted separately, to reflect the weight the teacher clearly attached to the issue.

Teachers mentioned a number of reasons for registering for the *Ethiopia Connection*. The link with World Vision and the 20 and 40 Hour Famine was mentioned by several teachers, while others talked about perceptions of the programme's quality. Some mentioned how they had heard about the programme – for example through advertising, or by having participated in previous World Vision internet programmes. The teachers' comments are summarized in Table 5.1.1. The frequency column shows the number of similar comments made across the interviews.

Table 5.1.1 Pre-programme teacher interviews: Reasons for registering

Coding	Frequency	Sample Comments
WV/Famine link	4	It was a well-recognised organisation.
Participated before	3	We did the Rwanda one last year and we found it very good.
Advertising	3	The yellow piece of paper arrived – I guess that's what jogged our memory
ICT link	2	To incorporate information technology and the internet
Learning	2	I wanted the children to see what's happening in the "real world"
Decision-maker	1	Because (DP's name) is our social studies guru, and I think probably her enthusiasm.
Cross-curricular	1	It will fit quite nicely with letter-writing too – you can cross it over the curriculum.
Communication	1	The ability to possibly communicate with people in Ethiopia.
Well-planned	1	It looked like it was well-planned.
Variety of resources	1	You can never have too many resources – such a variety.
Timing	1	That topic suits us at that time of year.
Syllabus links	1	We were looking for topics for the "living in a harsh environment" strand.
Setting	1	It's a far-away topic, in contrast to all our current ones.
Total comments	**22**	

When asked about the characteristics of a good social studies unit, the interviewees' first priority was student interest. The teachers also wanted a wide range of user-friendly resources and activities at the right level for their students and that fit syllabus requirements. Interactivity and computer access were also seen as important characteristics. Table 5.1.2 summarises the teachers' perceptions of the characteristics of a good unit.

Table 5.1.2 Pre-programme teacher interviews: Perceived characteristics of good unit

Coding	Frequency	Sample comments
Relevant/interesting	6	Anything that engages the students' interest, so it's got to be relevant to them.
User-friendly	4	If they're searching for something they have to be able to find it. Gives teachers ideas and takes the workload pressure off them.
Interactive	4	Post their questions and get replies – something interactive.
Range of resources	4	Good resources, a wide variety of resources.
Right level	3	Pitched I think at the right level for the kids.
Syllabus	3	Tying it back to the requirements of the social studies curriculum really.
Activities	3	Good learning experiences. Ideas of learning experiences.
Visual	3	Illustrations and more illustrations. If there's something that can be visual, highly visual.
Skills	2	We're looking at things we can use to develop these skills.
Computer access	2	You have to get on the internet on the day and period you want it.
Attractive	1	It has to be attractive.
Prior knowledge	1	Opportunity for children to have some prior knowledge in the topic area.
Oral	1	Opportunity for lots of (student) talk.
Co-operative	1	Something for a group response.
Problem-solving	1	Opportunity for like cooperative problem-solving.
Individual response	1	Individual response is good, too.
Information	1	Lots of information to help teachers.
Up to date	1	If it's up to date.
Teacher interest	1	Something the teachers are interested in and enjoy.
Total comments	**43**	

Table 5.1.3 shows that student interest was also a high priority in teachers' desired outcomes from the *Ethiopia Connection*. They also wanted to extend their students' knowledge of the world, and encourage compassion for others. Students' learning was also important, in terms of both knowledge and skills. Two teachers mentioned their desire to use the programme to promote the 20 or 40 Hour Famine in their school. Other teachers mentioned their desires for the characteristics of the programme itself (as opposed to its outcomes), including interactivity, ease of use and on-site activities in their wish-list.

Table 5.1.3 Pre-programme teacher interviews: Desired outcomes of the programme

Coding	Frequency	Sample Comments
Student interest	4	Something that the kids are going to find interesting.
Broaden horizons	3	A concrete sort of experience just really broadens their horizons.
Promote the Famine	2	I'm the teacher in charge of the Famine, so I thought it would be helpful in promoting the Famine in sort of a subtle way.
Learn skills	2	The internet side, the skill base.
Affective change	2	Add to children's thought towards others.
Student learning	2	I would hope that they would've really gained from the social studies side – the actual learning outcomes.
Examples	1	They've got no appreciation of what things are like and I think they need lots of examples.
Activities on site	1	It's quite good if there's some activities that they can actually do on-screen
Ease of use	1	Something that's easy for me to use as well – I'm not too good on a computer.
Interactivity	1	For kids to get into asking questions and sending messages.
Problem-solving	1	I'm hoping the kids can do some problem-solving themselves – planning what a village could do.
Total comments	**20**	

Teachers were also asked about their perceptions of what students wanted from a programme like the *Ethiopia Connection*. Again, student interest was mentioned most frequently, with four mentions across the interviews. Teachers also felt that students valued learning, and positive feedback in the form of good marks/grades for their work. As one teacher said, " 'I got an A and my work was put up on the wall' – for them I think that's really important." Two teachers thought students liked the games and puzzles on the website, and others mentioned students' enjoyment of computers, oral activities and having "ownership of what's going on".

As a means of finding relevant measures of programme effectiveness, teachers were asked about the indicators that would tell them that a unit was going well or badly. Table 5.1.4 describes the indicators that teachers looked for in a unit that was going well. Some of these indicators related to classroom observations, such as students focusing on the task, showing enthusiasm or asking to do the topic instead of other work. Other indicators were specific actions that students could be asked to self-report on, such as talking to friends and family about the topic and bringing things from home that related to their schoolwork. Some of these reflections of student interest were suitable for measurement purposes, and were incorporated into the post-programme student interviews and feedback forms. Outcome measures such as cognitive learning and attitude change were also mentioned.

Table 5.1.4 Pre-programme teacher interviews: Indicators of a unit going well

Coding	Frequency	Sample Comments
Extension	6	They would be wanting to possibly branch out into different areas.
Asking for topic	6	They might come up to me and say, oh, when have we got social studies next miss?
Talking to friends or parents	5	You'll hear kids talking about it in class and at other times of the day.
Internet outside class	4	Telling me they've been on the site at home.
Enthusiasm	4	That they're really spurred on about it.
Social action	3	A kid might come up with the idea of sponsoring a child.
Learning	3	If the learning outcomes are achieved that we hoped to.
Task focus	2	Concentration on the task.
Skill transfer	2	If the girls brought something from say a completely different subject area, and they've incorporated some of the skills they've learned.
Asking questions	2	The kids are asking questions, they want to know more.
Self-assessment	2	Reflecting back on their own effort and the challenges and successes they've had.
Discovery	1	When they find something for themselves and it makes an impact and I haven't particularly focused or guided them to it.
Bring things	1	Bringing resources along is probably quite a big indicator that they're interested in it.
Affective change	1	Compassion – changing attitudes.
Total comments	**42**	

In contrast, Table 5.1.5 presents the indicators teachers associated with a unit that was less effective. These included complaints, lack of interest in the topic, boredom and classroom control problems.

Table 5.1.5 Pre-programme teacher interviews: Indicators of a unit going badly

Coding	Frequency	Sample Comments
Complaints	5	Probably groans and sighs when I said "we're off to the computer room again".
Lack of interest	4	You just get that feeling in the classroom that they're not interested.
Boredom	3	They'd be "oh yeah, it's just boring", just another thing at school.
Control issues	2	I'll have to be constantly on their cases to get them to do the task required.
Confusion	2	Confusion, a lot of questions, me running around too much to give individual help.
Lack of interaction	2	They'd be not enthusiastic about discussions – standing back and not getting involved.
Reluctance	2	There won't be any enthusiasm – it'll be reluctant work.
Lack of completion	1	Maybe lack of interest in completing the task.
Superficiality	1	Very superficial answers or responses or ideas.
Negative responses rare	1	But that's just an imagined scenario, you know, it doesn't happen.
Can be temporary	1	Sometimes they don't want to know about things they should know about and once you lead them the right way they can get a lot out of the focus.
Total comments	**24**	

During the interviews teachers made other programme-related comments that did not fit into any of the previous categories. A total of 19 such comments were made. Of these, eight comments related to obstacles to participating fully in the programme, such as timing clashes, access issues or a lack of experience with this type of programme. Six were positive comments on specific programme aspects such as the activities, video and folder, while the remaining five comments related to ways the teacher would use the programme.

5.2 Phase Two: Examining Programme Implementation

Having established teachers' expectations of the programme, and some possible measures of success, Phase Two of the evaluation aimed to observe how the programme was actually used, so that this could be compared to the programme theory derived from phase one, and from the educational literature. The programme was observed in three main ways – a) by examining school registration data, b) by observing in classrooms where the programme was being used, and c) by analyzing data collected automatically by the website to see how students used the computer-based part of the programme.

5.2.1 Registration data

Table 5.2.1 presents the total registrations for World Vision internet programmes by year. The numbers of both schools and students involved in these programmes has increased steadily each year, with four times as many students involved in the *Ethiopia Connection* as had been registered in 1998, the first year these programmes were run.

Table 5.2.1 Total registrations by year

Year	**1998**	**1999**	**2000**	**2001**
Programme	**Malawi**	**Mongolia**	**Rwanda**	**Ethiopia**
No. of schools	125	270	245	296
No. of students	5,000	11,000	18,000	20,000

The geographical spread of registered schools, and the comparison to the total number of schools in each district, is shown in Table 5.2.2. Nationwide, the 296 schools registered for the *Ethiopia Connection* represented over one-tenth of the 2711 schools in the country. The percentage of schools involved was higher in the South Island, especially in Westland where 14.7% of all schools registered and lower in the central and southern North Island, especially in Manawatu/Wanganui where only 7.1% of schools were involved.

Table 5.2.2 Geographical Spread of schools registered for the *Ethiopia Connection*

Region	Number of schools registered	Total number of schools in region	% of schools in region registered
Northland	18	157	11.5
Auckland Region	58	538	10.8
Waikato	33	298	11.1
Bay of Plenty	14	163	8.6
Gisborne/Hawkes Bay	17	204	8.3
Taranaki	14	121	11.6
Manawatu/Wanganui	16	226	7.1
Wellington region	23	265	8.7
Total North Island	**193**	**1972**	**9.8**
Marlborough/Tasman	12	91	13.2
Westland	5	46	10.9
Canterbury	46	313	14.7
Otago	27	185	14.6
Southland	13	104	12.5
Total South Island	**103**	**739**	**13.9**
National Total	**296**	**2711**	**10.9**

Table 5.2.3 summarises the number of students per school involved in the *Ethiopia Connection*. In some cases, this represented the whole school (especially for home-schools, and for small country schools with only one class). In other cases, this represented all the students at one level, or just the students in a specific class or classes (where individual teachers had decided to do the programme). For the 24 schools that did not fill in the number of students, the number was entered as one student (in order to avoid overestimating the total number of students participating in the programme). Excluding those schools, the number of students per school ranged from 1 (a home-school) to 800 (a large city intermediate school registering all its classes). The average number of students

per school was 67, or approximately two classes. The mode (most frequently stated number of students) was 30, which fits with a picture of many schools registering one class.

Table 5.2.3 Number of students per school

Number of students registered in a school	Number of schools in category
1, or number not given	25
2 to 9	22
10 to 19	26
20 to 29	47
30 to 39	36
40 to 49	14
50 to 59	18
60 to 79	28
80 to 99	16
100 to 149	31
150 to 199	13
200 to 299	10
300 to 399	3
400 and over	7
Total	**296**

These data are also shown in graphic form in Figure 5.2.1. The graph peaks at 20 to 39 students, again consistent with many schools registering one class. There are lesser peaks at 60 to 79 students (approximately two classes) and at 100 to 149 students (three to five classes).

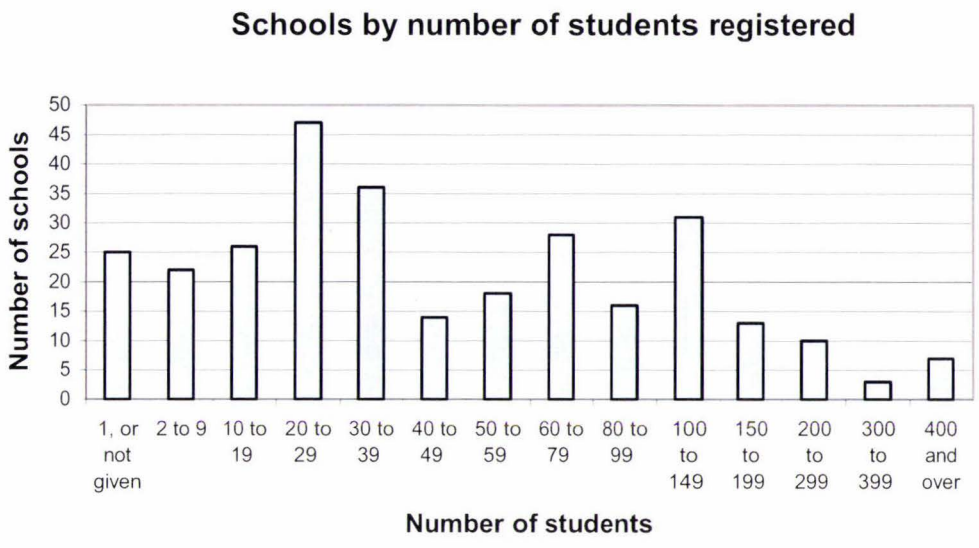

Figure 5.2.1 Graph of schools categorized by the number of students registered

Schools were asked the ages of the students who would be taking part in the programme, and these were recorded as a range for each school. Schools were not asked the number of students at each age or level, so it was not possible to analyse the number of students participating by age. Student ages ranged from four to 19 years, with the largest range at a single school being 11 years, from nine to 19 years. Three other schools registered students with a ten-year age range, from five to 14 years. The majority of schools registered children with a two-year age range (for example from 10 to 11 years) or a three-year age range (for example from 13 to 15 years), probably representing one class or one level of the school. The mean for schools' stated youngest participating students was 8.6 years old, and the mean for their stated oldest participating students was 12.0 years old.

Table 5.2.4 presents the number of registered schools according to the broad age ranges of students involved. The largest category was combined primary and intermediate levels, with 97 such schools registered. There were 57 schools that registered both junior and senior primary levels but not intermediate levels. In contrast, only four schools included year 11 students or higher, and no schools registered only for these levels.

Table 5.2.4 Schools by age range of participating students

Age range	Number of schools
Junior primary (school years 1 to 4) only	20
Senior primary (school years 5 to 6) only	34
Primary range (school years 1 to 6) only	57
Intermediate (school years 7 to 8) only	33
Primary and Intermediate (school years 1 to 8) only	97
Junior secondary (school years 9 to 10) only	25
Senior secondary (school years 11 and up) only	0
Secondary range (school years 9 to at least 11)	4
Full range (including primary/intermediate and secondary)	17
Not stated	9

Table 5.2.5 further summarises the age ranges involved by presenting the total number of schools that registered students at primary, intermediate or secondary levels. Since some schools registered students across two or even all three of these levels, these schools were counted twice or three times, so the total is greater than the number of schools registered for the *Ethiopia Connection*.

Table 5.2.5 Summary of schools by level of students participating

Age range	Number of schools
Total schools with primary-level students participating	220
Total schools with intermediate-level students participating	147
Total schools with secondary students participating	56

5.2.2 Automatic website counts

From March 1st to 31st 2001, while the programme ran, there were 8,400 visits to the World Vision site (part of which formed the *Ethiopia Connection* site). This represented a doubling of the number of visits during an average month in 2000/2001. Overall, the World Vision site received 45,000 page views during the month, indicating that the average visitor looked at 5.4 pages during their visit. The average time per visit was just over 5 minutes, and 20% of visitors spent 6 or more minutes on the site. To separate only those visiting the *Ethiopia Connection* part of the site, the number of visits to that homepage was measured. Over the month, there were 3,500 visits to the *Ethiopia Connection* homepage. This is likely to be a slight underestimate of the number of visits to the *Ethiopia Connection* site, as some visitors would have approached the site through some other page, and never visited the homepage.

Table 5.2.6 compares these numbers with those available for previous internet programmes. The total number of visits to the World Vision New Zealand site during the month of the programme has increased over the past three programmes. Compared with the previous year, there has been a slight reduction in the number of visits to the programme site, and a reduction in the time spent by the average site visitor.

Table 5.2.6 Website use in March by year

	1999 – Mongolia	**2000 – Rwanda**	**2001 - Ethiopia**
Website visits	3154	7827	8400
Page views per visit	Not available	10.9	5.4
Time per visit	Not available	7.9 minutes	5.1 minutes
Programme homepage visits	Not available	2695	3500

The number of contributions in each section of the site, and the number of schools represented by these contributions was counted, to give an indication of the number of

schools that were involved in each of the site-based aspects of the programme. Overall, there were 639 contributions to the site from 54 schools. The question section attracted the most contributions, with a total of 371 questions sent in over the four weeks of the programme. The discussions and messages sections also attracted large numbers of contributions, while only four schools made the effort to send stories or photos for the classroom ideas section. These data are summarised in table 5.2.7.

Table 5.2.7 Number of schools contributing to each site area

Section of site	Details	No. of contributions	No. of unique schools
Questions	About Ethiopia	286	39
	About community	30	14
	About hunger	23	10
	About WV's work	32	12
Total Questions		**371**	**43**
Discussions		159	17
Messages		103	11
Classroom ideas		6	4
Total Contributions		**639**	**54**

The site polls asked a different question each week. For each question, there was no clear-cut correct answer. Rather, the five answer choices for each question represented different views of poverty and aid. The questions and options for the first and fifth poll were the same, so that some measure could be made of any change in student opinion over time. The polls were anonymous, so there was no way to measure the ages or schools of the students responding, or even to avoid possible double answering. Compared to the number of students involved in the programme as a whole, the number filling in the site poll was relatively low, with numbers ranging from 69 to 209 for any particular week's question, and an average response rate of 132 students per week.

During the first week, students were asked whose fault it was that people didn't have enough food for their families. Over one-third of students thought it was "nobody's fault", while the next largest group, just over one-fifth of respondents, attributed the main fault to the poor people themselves. The figures for the week one site poll are shown in Table 5.2.8.

Table 5.2.8 Results of week 1 *Ethiopia Connection* site poll

Question: Whose fault do you think it is that so many people don't have enough food for their families?	**No.**	**%**
The poor people's fault – they should work harder and have fewer children.	26	21
The rich people's fault – they should share their food and other resources with people who don't have enough.	17	14
The poor countries' governments' fault – they should manage their country better and provide for the people.	18	15
The international institutions' fault (like the IMF, World Bank and World Trade Organisation) – they should change the rules so poor countries don't have to pay so much interest and can get fairer prices for their goods.	17	14
Nobody's fault – people can't help it if the rain doesn't fall or their land is infertile.	43	36
Total responses	**121**	**100**

For the second week's question on whether people in wealthy countries should help people in poorer places, the students were divided evenly between two options (see Table 5.2.9). Two-fifths thought poor people should look after themselves, while another two-fifths thought wealthy people should help, provided that the assistance would be well-used. The final fifth thought wealthy people should help, but chose different conditions in which this should happen.

Table 5.2.9 Results of week 2 *Ethiopia Connection* site poll

Question: Do you think that people in wealthy countries like New Zealand and Australia should help people who are struggling in countries like Ethiopia?	**No.**	**%**
No – it's not our responsibility – they should look after themselves.	87	42
Maybe, but only after a natural disaster like an earthquake or a drought. If it's a war, or long-term poverty, there's no point in trying to help.	8	4
Maybe, but only if we can decide what type of help to give, and tell people how to use it, so it's not wasted.	15	7
Yes, so long as we can be reasonably sure the help will get to those who need it most, and it will be used to help people help themselves.	86	41
Yes, always – we should give to everyone who asks, even if we're not sure what will happen to the money.	13	6
Total responses	**209**	**100**

During the third week, students were asked about the one action that they thought was most important to make sure people had enough food. This is a complex question, and student opinions were more evenly divided among the options (see Table 5.2.10). The most frequent, with over one-third of the votes, was to change the rules of international finance, while forcing the rich to help the poor was chosen by nearly one quarter of respondents.

Table 5.2.10 Results of week 3 *Ethiopia Connection* site poll

Question: Which of these do you think is the MOST IMPORTANT thing for the world to do to make sure everyone has enough food?	**No.**	**%**
Develop better ways of growing food.	20	11
Make sure everyone has either land where they can grow food, or work that pays enough to buy food.	25	14
Encourage people to have fewer children, so there are fewer mouths to feed.	21	12
Change the rules of international trade and debt to make it fairer for poor countries.	66	38
Make rich people give up some of their wealth so other people can have what they need.	42	24
Total responses	**174**	**100**

When asked what they would personally do towards a solution, the numbers of students responding suddenly dropped. Of those who did respond, nearly half said they would raise money. This may be related to the timing of the question, falling in a week following the 20 and 40 Hour Famine. Students' other responses were divided among the four other alternatives, including "nothing", with the least frequent choice being to write letters of protest to government and other authorities. Table 5.2.11 summarises students' responses to this question.

Table 5.2.11 Results of week 4 *Ethiopia Connection* site poll

Question: What have YOU decided to do to help make sure people everywhere have enough food to live?	**No.**	**%**
Nothing.	11	16
Learn more about the issues, and tell other people about them.	11	16
Send money, by doing the World Vision Famine or sponsoring a child or donating to an aid organization that is helping people in need.	33	48
Write to the government or similar to ask that international trade, debt and economic rules should be changed to make it easier for poor countries to feed their people.	5	7
More than one of the above choices (2-4)	9	13
Total responses	**69**	**100**

The fifth poll fell in the last few days of the programme, and repeated the first week's question. The results are presented in Table 5.2.12. Nearly half the respondents thought that hunger was "nobody's fault", with one-quarter blaming the governments in poor countries. Only 6% of respondents attributed blame to the poor people themselves.

Table 5.2.12 Results of week 5 *Ethiopia Connection* site poll

Question: Now that you've learned more about the issues, whose fault do you think it is that so many people don't have enough food for their families?	**No.**	**%**
The poor people's fault – they should work harder and have fewer children.	5	6
The rich people's fault – they should share their food and other resources with people who don't have enough.	6	7
The poor countries' governments' fault – they should manage their country better and provide for the people.	21	24
The international institutions' fault (like the IMF, World Bank and World Trade Organisation) – they should change the rules so poor countries don't have to pay so much interest and can get fairer prices for their goods.	16	19
Nobody's fault – people can't help it if the rain doesn't fall or their land is infertile.	38	44
Total responses	**86**	**100**

The comparison between week one and week five polls is shown in Table 5.2.13. The most dramatic change between week 1 and week 5 was a drop in the percentage of students attributing blame to poor people themselves. The frequency of this option fell from 21% (the second most frequent option in week 1) to 6% (the least frequent option in week 5). In contrast, the percentage of students blaming the governments in poor countries, the international financial institutions and "nobody" increased slightly.

Table 5.2.13 Comparison of week 1 and week 5 poll answers

Answer	Week 1		Week 5		Difference in %age
	N	%	N	%	
The poor people's fault – they should work harder and have fewer children.	26	21	5	6	Down 15
The rich people's fault – they should share their food and other resources with people who don't have enough.	17	14	6	7	Down 7
The poor countries' governments' fault – they should manage their country better and provide for the people.	18	15	21	24	Up 9
The international institutions' fault (like the IMF, World Bank and World Trade Organisation) – they should change the rules so poor countries don't have to pay so much interest and can get fairer prices for their goods.	17	14	16	19	Up 5
Nobody's fault – people can't help it if the rain doesn't fall or their land is infertile.	43	36	38	44	Up 8

The first and last 100 questions students submitted to the site were examined for indications of the attitudes displayed. These questions were directed at the travelling teacher. Most questions did not reflect any particular attitude, being purely factual in nature. However, specific attitudes could be identified in some of the questions. The attitudes were categorized in the same way as those used for the student attitude assessments (see section 5.3.1), with a further subdivision within the judgment attitude to differentiate between questions that appeared to be judgmental of the people themselves, and those that seemed to be judging the country as a whole. Sympathy was the most frequently expressed attitude, followed by acceptance, respect and personal judgment. The least frequent

attitude was indifference. The frequency of attitudes shown in the first 50 questions is shown in Table 5.2.14.

Table 5.2.14 Attitudes shown in first 100 questions to the site

Attitude	Sample Comments	Frequency
Empathy	By taking all the actions we are do you think that in about 10 or 20 years this hunger and poverty would be mostly gone?	5
Sympathy	What is the saddest thing you have come across? Does it break your heart to see so many people suffering?	8
Indifference	(none)	0
Judgment - personal	Some people feel really sorry for these people but don't realise a lot of the blame should be directed at them cause no-one asked them to have kids if they couldn't support them.	6
Judgment – country	Is Ethiopia an overpopulated country?	2
Acceptance	How warm and cosy are their houses?	7
Respect	Do they celebrate a good harvest? What are some of the jobs Ethiopians do to raise a family?	6

Table 5.2.15 presents the results of the analysis of the last 50 questions. Again sympathy was the most commonly expressed attitude, and indifference was the least expressed. The frequency of each attitude in the last questions was the same as that for the first questions, showing no noticeable change in attitude by this measure.

Table 5.2.15 Attitudes shown in last 50 questions to the site

Attitude	Sample Comments	Frequency
Empathy	What ways are there to stop the poverty cycle within the country and how can we help?	4
Sympathy	What can a seven-year-old do to help?	7
Indifference	Why should richer countries give their money to poorer countries that can't handle their money and/or country?	1
Judgment - personal	If the mothers are so unhealthy how do they get pregnant?	4
Judgment – country	Why is there so much money spent on defense? Why doesn't the government help its people?	5
Acceptance	What do Ethiopian children do for fun?	6
Respect	Do you have any special friends in Ethiopia?	3

5.2.3 Classroom observation

Two classrooms were observed, each on two occasions, to gain an impression of how the programme was used in schools and to add to the identification of problems and issues arising from the materials or from the way the programme ran. The two classrooms in which observations occurred were the same classes from which the students for the attitude assessments were chosen. They represented one class each from each of the focus schools.

Classroom One

The first focus school was a co-educational state primary school with a decile rating of 10, indicating a high socio-economic area. Most students in the school were Pakeha (New Zealanders of European ethnicity), but there were some Asian, Maori and Pacific Island students. The focus class was year six, with 12 girls and 16 boys. The teacher was a young woman in her second year of teaching. She had used a World Vision internet programme once before, in 2000. The class was using the *Ethiopia Connection* as a full social studies unit, focusing on the level three Resources and Economic Activities achievement objective,

"how people make decisions about the use of resources, goods and services" (Ministry of Education, 1997, p. 47). Two other classes in the school (one year five and one composite year five and six) were also using the *Ethiopia Connection*. The school was registered for the 2001 20 Hour Famine.

First Lesson

The first observed lesson in this class came at the end of the first full week of the programme. The class had started the social studies unit based on the *Ethiopia Connection* a few days earlier, so students were already aware that they were studying Ethiopia, and they had learned some basic concepts about drought and famine. In all, the lesson lasted approximately one hour. The teacher had cut out and laminated the photos from the poster (these photos featured aspects of drought/famine or agriculture) and had photocopied and cut out the photo captions. This must have required significant preparation time. Each group of two to three students received one photo and an activity sheet. Students were asked to write a suitable caption for their photo, and the first three sentences of a newspaper article that might go with the photo. Most students worked well on this, using their earlier learning about drought and famine. However, several groups had difficulty identifying the crops or the main activity shown in the photo (especially for the photos depicting irrigation ditches and planting rows). This lead to some inaccurate captions and irrelevant story beginnings.

Students then received the poster captions, with numbers removed, and were given the task of matching the captions to their photos and adjusting their own caption or story introduction on the basis of the information in the official caption. Most captions were matched correctly, but some misconceptions from the first part of the activity caused two groups to choose the wrong caption for their photo, and therefore continue with incorrect information in their notes. This error could have been cleared up by checking against the numbered captions, as had been suggested in the teacher notes, but this was not done. The class then met to share their findings and read out their captions and story introductions. The captions and stories showed evidence that all the students were very aware of the effects of drought, and that some groups had thought deeply about the information in their

photo. However, it seemed that some students were getting bored with such a long focus on one resource.

For the second half of the lesson, the teacher gave each group a fact from the Ethiopia Information page of the poster. Each of these facts gave a statistic or information (for example, capital city or average income) relating to life in Ethiopia, plus the corresponding fact relating to New Zealand. The students were asked to find out more about their fact in the library or on the internet site and then present their findings on paper in an interesting way. Again, most students set off with enthusiasm, but some appeared bored with another visual activity using group work. It was also clear that some facts were inherently easy to portray, while groups receiving other facts had a much more difficult task.

Second lesson

The second lesson observed in this classroom occurred ten days later, early in the third week of the programme. The illustrated facts from the first lesson were displayed on the wall, surrounding a map of Ethiopia that the class had created together. Next to this were the weekly fax messages the class had received from the travelling teacher, under the heading "follow this amazing teacher around Ethiopia". At different times during the visit, the teacher and several students showed this display to the researcher with obvious pride.

There was one computer with internet access in the classroom, and students could also use a computer in the nearby library. Since it was impossible to have the whole class using the website at the same time, the teacher normally organised students into groups of three or four and sent one group at a time to use the website while the rest of the class continued their other lessons. The researcher accompanied one such group to the library for their website session. The group consisted of two boys and two girls. These students had instructions from the teacher to focus this session on sending messages or discussion contributions on the site.

There was some jostling among the students as to who would take charge of the keyboard. Initially the boys took control and decided to answer one of the discussion topics – "how

can poverty be stopped". After initial difficulties (needing the password from the teacher, and a delay when the website form inexplicably disappeared), the boys entered their answer. Meanwhile the girls drifted off to look something up. Encouraged by seeing their contribution appear on screen, the four students decided to start their own topic, and spent some very productive time discussing what it should be, and how to word the title. This time when it came to entering the message, the girls had control of the keyboard and the boys drifted off to explore the library.

Meanwhile, the girls had decided to answer a discussion topic sent by one of the Ethiopian students, on whether there were poor people in New Zealand. The boys were called over to help, and the group began discussing an answer. The students were obviously interested in the idea of exchanging messages with children from another country. The girl by the keyboard put forward an answer, with which the boys disagreed. The boys wanted to discuss the issue but the girl by the keyboard entered her answer anyway, as all three of the other students gradually lost interest. The difficulties of deciding on group answers and allocating who would type, plus the time taken by typing itself were clearly frustrating for all the students.

The group came together again to decide on the next step – answering another Ethiopian discussion topic on whether the children of New Zealand wanted to "help". The group immediately decided they could not speak for all New Zealand children, and tried to come up with a way to get a more representative answer. In the end they decided to survey their class, sending one student to ask "how many children in this class want to sponsor in Ethiopia when they grow up?" Of the 24 children in the class, 23 indicated that they wanted to sponsor, and the group entered this statistic as their discussion contribution. At this stage the lesson time was over and the students returned to their classroom.

Classroom Two

The second focus school was a co-educational state secondary school in a low socioeconomic area (decile one). Almost all students were of Pacific Island descent, with some Maori students and a very small minority of Asian and Pakeha students. The focus

class was the top-stream year nine social studies class with 11 girls and 13 boys, and a reading age range from 10 to 15. The teacher was an experienced teacher of geography and social studies. She had used a World Vision internet programme once before, in 2000. The class was using the *Ethiopia Connection* for their annual "rich worlds, poor worlds" unit, which focuses mainly on the level five resources and economic activities achievement objective to understand "factors that affect people's access to resources, goods and services" (Ministry of Education, 1997 p. 48). The school was registered for the 2001 40 Hour Famine.

First lesson

The first lesson observed in this class fell at the beginning of the first full week of the programme and lasted for 55 minutes. The teacher had written a paragraph on "haves and have-nots" on the whiteboard, with instructions to students to copy these notes into their books. Once the students had finished writing, the teacher explained the notes and went through the aims of the lesson, which were also written on the board. These included working towards answering the question "what is life like in Rich Worlds compared to Poor Worlds?" This was described as focus question three – clearly one of several questions the class had been given for the unit as a whole.

The teacher then gave out one poster to each group of three or four students. There were not enough Ethiopia posters for this activity (as the teacher had not read the note on the back offering more copies), so some groups worked with posters from previous years, on street children in Mongolia, and child families in Rwanda. Students were instructed to examine the photos on their poster and write down similarities and differences with life in New Zealand. They worked in groups for this activity, but each student made notes individually in their book.

Many students obviously enjoyed this activity and some made copious notes. Others identified interesting similarities and differences in their discussions, but wrote few of them down. Students were supposed to work from the photos only, but many turned the posters over and read the information on the reverse to help in making their lists. In general, they

found it easier to find differences, but came up with few similarities, which were often of a surface nature (eg "we both use spoons"). Many of the differences identified negatives of life in the developing-world country, with the adjective "dirty" mentioned several times, even referring to food. However, some differences were positive, including a statement that Ethiopia had less pollution than New Zealand. Once they had written their lists of similarities and differences, students wrote a summary statement and shared their group's conclusions with the rest of the class.

The second lesson observed with this class was late in the second full week of the programme, and was held in the school's computer room. This allowed all the students access to the internet at the same time, with enough computers so that students could work alone or in pairs, rather than in larger groups. The drawback of using the computer room was the time it took to wait for all of the students to arrive at class, walk them to the computer room, find the key and log on to the computers – a total of ten minutes out of the 55-minute period.

The students were given a written sheet summarising the aims of the lesson and giving instructions for the students to follow. The teacher went through this form and emphasised that students should go only to the *Ethiopia Connection* site – "no lyrics, no wrestling". The first task on the sheet was a writing assignment, and many students began with this, while others went straight to the next activity which involved the website. Students clearly differed in their ability to navigate the web. Most found the site with no problem, although some used the search engine rather than just typing in the url. Once there, students had to go to the question section, search using their school name and read all the questions and answers from their school. They then had to choose three questions that would help them in their learning, and copy these down with their answers. In practice, most students chose the shortest question/answer combinations, rather than the most useful. Both teacher and students were obviously pleased to see their classmates' names on the questions, and were proud of the number of contributions from their school.

The next task was to read the discussion section, and especially the messages from the Ethiopian students, who had asked about life in New Zealand. Students were instructed to choose one of these questions and answer it. If they had time, the sheet instructed that students could send messages in the message section, and/or solve the puzzles in the Funzone. Several students reached this section of the lesson sheet and composed messages to the children in Ethiopia. During this time, one of them commented that she really wanted to send a message to the travelling teacher – just to "say hi" – but the site only allowed for questions to the teacher.

Students varied widely in the time it took for them to do all these tasks, with some pairs taking up to ten minutes to compose and type one discussion reply. However, students seemed to enjoy interacting with the site, and all students were on-task (reading, writing or discussing things related to their work) for most of the lesson. The students especially enjoyed asking questions and sending messages themselves (as opposed to reading others' messages and questions).

5.3 Phase Three: Assessing Programme Impact

The third phase of the evaluation aimed to assess the impact of the programme in two main areas - students' attitudes towards the developing world, and participants' perceptions of the programme itself. Student attitudes were evaluated by assessing the attitudes of a small sample of students before the programme began, and then assessing a slightly larger group at the end of the programme. Participants' perceptions about the programme were examined through feedback forms sent to teachers, students and World Vision Ethiopia staff, and by interviews with a small group of teachers and students, and with the travelling teacher.

5.3.1 Pre-programme student attitude assessments

The pre-programme attitude assessments were performed with a total of 11 students – six from one focus school and five from the other. The first focus school was the co-

educational state primary school described in detail in section 5.2.3, classroom observations. The students selected were three girls and three boys, chosen by the teacher to represent high, middle and low-achievement levels (relative to the rest of the class). The second focus school was the co-educational state secondary school described in section 5.2.3. The students selected were three girls and two boys, again chosen by the teacher to represent a range of ability levels relative to the rest of the class.

For the first part of the pre-programme attitude assessment, students were asked to comment on a photograph showing a group of young women in Africa preparing food. Students were asked a series of open questions to elicit their ideas on what was happening in the photo, what the people pictured might be like, what they might be thinking, and what should happen next. Their responses were coded according to the main attitude shown by each comment. Table 5.3.1 gives a brief explanation of the attitude codes used, and examples of student comments classified in each category, as an indication of the classification system used.

Table 5.3.1 Attitude codings for photo interpretation

Attitude code	Explanation	Sample Comments
Empathy	Identifying with people in the developing world, seeing them as resourceful equals, wanting to stand alongside them	They want jobs. They want a better life for their children because they don't want them to have to struggle like them
Sympathy	Feeling sorry for those in need, wanting to help them but seeing them as largely helpless.	I feel sorry for them because they have no school for the children and no money.
Indifference	Avoiding hearing or thinking about people in need, feeling that the problems are unrelated to their own lives, not wanting to try to help.	No comments made by any of the students were coded as indifference, however one student omitted to mention any need for themselves or others to do anything to help.
Judgment	Blaming others for being poor, attributing their problems to laziness, stupidity or pig-headedness.	They don't look like they've got many friends. Their clothes look like they haven't been washed for a while.
Acceptance	Seeing differences without assuming misery - observing other's lives without emotional reaction.	They look like they're praying or looking down, and they're sitting on a bamboo mat.
Respect	Recognising strength in others, seeing them as whole people with skills and positive qualities.	They look like they're looking after each other. I think they're kind.

The number of statements for each code by each student are shown in table 5.3.2. Where students specifically mentioned the need for someone to help, this was recorded as a negative score in the indifference column. The final column shows the overall code or codes given to the student's interview, based on the number and strength of comments in each category. Across all the students, sympathy comments were most frequent, with moderate levels of comments showing empathy and respect. The least frequent category was judgment, with several students making no comments at all that were rated as judgmental. As a result, two students were given an overall code of sympathy, one was coded as empathy, seven had a combined coded of empathy and sympathy, and one was coded as displaying a combination of judgment and sympathy.

Table 5.3.2 Attitude coding by student – photo interpretation interview

Student	Class level	Empathy comments	Sympathy comments	Indiff. comments	Judgment comments	Acceptance comments	Respect comments	Overall rating
101	Y6	0	4	-1	1	1	0	S
102	Y6	2	2	-2	0	1	2	E/S
103	Y6	3	5	-3	0	1	3	E/S
104	Y6	3	3	-1	0	1	2	S/E
105	Y6	0	4	-1	3	0	0	J/S
106	Y6	2	2	0	1	1	1	S/E
201	Y9	2	4	-2	0	1	2	S/E
202	Y9	2	4	-1	0	0	1	S/E
203	Y9	4	2	-1	1	0	2	E/S
204	Y9	4	1	-1	0	1	3	E
205	Y9	1	3	-1	0	0	2	S

For the written section of the attitude assessments, students' answers to each question were added according to whether the question had been classed as revealing empathy, sympathy, indifference or judgment. Each student's scores were then averaged for each group of questions, giving a score from one (low) to five (high) for each attitude.

The students' attitude scores are shown in Table 5.3.3, along with students' age, gender and history of doing the 20 or 40 Hour Famine. For the two Famine history columns, Previous Famine refers to whether the student had ever done the Famine in the past. Current Famine refers to whether the student was registered for the 2001 Famine, which was due soon after the assessments were done. In each case, N indicates that the student did not do the Famine or was not registered for the current Famine. Y indicates the student did the Famine or is registered for the current year's Famine, while YY indicates the student had done two previous Famines.

The attitude scores varied quite widely, but on average, the students showed high levels of empathy and sympathy, with moderate levels of judgment and low levels of indifference. Six of the students had participated in the 20 or 40 Hour Famine before, and all but one said they were intending to do the upcoming Famine. These responses may be partly a reflection of the answers they thought were expected of them.

Table 5.3.3 Pre-programme attitude ratings from written assessment

Student	Age	Gender	Previous famine	Current famine	Empathy	Sympathy	Indifference	Judgment
101	10	F	Y	Y	3.4	3.3	2.3	2.3
102	10	F	Y	Y	3.4	3.5	2.0	3.0
103	10	F	N	Y	3.8	3.5	1.5	3.3
104	10	M	N	Y	3.8	2.8	2.0	3.0
105	10	M	N	N	2.8	2.8	2.8	3.3
106	10	M	N	Y	2.4	4.3	2.0	3.0
201	13	M	N	Y	3.2	3.8	1.8	2.8
202	13	M	Y	Y	4.2	3.3	2.0	3.0
203	13	F	YY	Y	4.0	2.8	1.0	2.3
204	13	F	YY	Y	3.8	3.3	2.5	2.8
205	12	F	Y	Y	3.4	4.3	1.8	2.3
Mean	11.27		0.73	0.91	3.47	3.39	1.95	2.82

Looking at each student's ratings by the written assessment and by the interview-based photo interpretation task, summarised in Table 5.3.4, the two measures agreed well for eight of the eleven students. However, for students 104, 105 and 106, there was some discrepancy between the ratings obtained by the written assessment and that from the interview, with one attitude rating agreeing between the two measures, but the other different. For students 104 and 106, the attitude of judgment showed in the written

assessment but not in the oral task, while students 104 and 105 showed sympathy in the interview but not in the written assessment.

Table 5.3.4 Comparison of attitude ratings from interview cf written assessment

Student	Interview-based rating	Written assessment top attitude	Written assessment second highest attitude	Written assessment high scoring attitude(s) *	Written assessment low scoring attitude(s) **
101	S	E	S	-	J
102	E/S	S	E	-	-
103	E/S	E	S	J	I
104	S/E	E	J	-	S
105	J/S	J	E	I, J	E, S
106	S/E	S	J	S	E
201	S/E	S	E	-	-
202	S/E	E	S	E	-
203	E/S	E	S	E	-
204	E	E	S	-	-
205	S	S	E	S	-

* denotes an unusually high score for that attitude in comparison to the scores of other students.

** denotes an unusually low score for that attitude in comparison to the scores of other students.

5.3.2 Post-programme student attitude assessments

The post-programme student attitude assessments were completed by a total of 31 students – five from the secondary focus school, and 26 from the primary focus school. The five students from the secondary school were the same ones who completed the pre-programme attitude assessments. This was initially done so that the responses could be compared. However, as the pre-tested students from the other school were not identified in these post-assessments, this left too few students to make a meaningful comparison.

As had been seen in the pre-programme attitude assessments, students varied widely in their attitude ratings towards the developing world. The highest-scoring attitude was empathy, which also had the widest range of scores. Students' empathy scores ranged from a low of 1.6 to a high of 4.4, with an average over the 31 students of 3.55. Sympathy responses were slightly less varied, with a range from 1.5 to 3.5 and an average of 2.73. Indifference was the lowest-scoring attitude, ranging from 0.8 to 2.5, with an average of 1.81. Judgment ratings ranged from 1.00 to 3.7 and averaged 2.43. The attitude scores by student are shown in table 5.3.5.

Table 5.3.5 Post-programme student attitude ratings

Student	Age	Gender	Previous famine	Current famine	Empathy	Sympathy	Indifference	Judgment
201	13	M	0	0	3.8	2.8	1.3	2.3
202	13	M	2	1	3.4	3.3	2.3	3.7
203	13	F	2	1	4.2	2.0	1.8	2.7
204	13	F	2	0	3.0	2.5	2.3	3.3
205	12	F	0	0	3.8	2.5	2.0	3.7
P1	10	F	0	0	3.8	2.8	1.8	2.7
P2	10	M	0	0	3.2	2.3	2.3	2.3
P3	10	F	1	1	3.6	2.8	1.8	1.3
P4	10	F	1	1	3.8	3.3	0.8	1.7
P5	10	M	0	0	2.8	3.0	2.5	2.7
P6	10	F	1	1	4.0	2.3	1.3	1.0
P7	10	M	1	1	4.0	3.3	0.8	1.7
P8	10	F	1	1	3.6	3.0	2.0	1.0
P9	10	M	0	0	3.6	3.0	0.8	1.0
P10	10	F	0	0	3.4	3.0	1.8	2.0
P11	10	F	1	1	4.4	2.3	2.0	2.0

Student	Age	Gender	Previous famine	Current famine	Empathy	Sympathy	Indifference	Judgment
P12	10	M	0	0	4.0	3.0	1.3	3.0
P13	11	F	2	1	3.8	3.8	2.3	3.0
P14	10	M	2		3.2	3.5	2.3	1.7
P15	10	M	3	1	1.6	3.3	2.3	1.0
P16	10	M	0	0	4.0	3.0	1.3	2.3
P17	10	M	0	0	4.0	2.3	2.0	2.3
P18	10	F	0	0	3.6	2.5	2.0	3.7
P19				1	4.0	1.8	2.5	2.3
P20	10	F	0	0	4.0	2.3	2.5	2.3
P21	10	F	2	1	2.8	3.5	2.5	2.7
P22	10	F	0	1	4.2	2.5	1.8	2.7
P23	10	M	0	0	3.6	3.5	1.3	2.7
P24	11	M	0	0	1.8	1.5	2.3	3.7
P25	10	M	0	0	3.4	2.3	1.5	3.7
P26	10	M	0	1	3.6	2.5	1.8	3.3
Mean	**10.53**		**0.7**	**0.45**	**3.55**	**2.73**	**1.81**	**2.43**

The attitude scores were averaged by gender, previous Famine participation and age. Table 5.3.6 shows that the ratings did not differ greatly among these groups.

Table 5.3.6 Student attitude Ratings by Gender, Famine participation and age

Group	Empathy	Sympathy	Indifference	Judgment
All girls	3.73	2.72	1.88	2.38
All boys	3.33	2.82	1.70	2.49
Previous famines	3.49	2.96	1.85	2.05
Year 6	3.53	2.76	1.80	2.29
Year 9	3.64	2.60	1.90	3.13

The averaged scores for the pre-and post-programme attitude assessments were also compared. The scores for empathy, indifference and judgment were all very similar across the two time periods, but the score for sympathy dropped by about half a point. It should be remembered here that the pre-programme assessments included only eleven students, and that many of the still relatively small group of students in the post-programme assessment had not been included in the earlier figures. The comparison is, therefore, far from ideal. The comparison is shown in Table 5.3.7.

Table 5.3.7 Comparison of averaged pre and post-programme attitude ratings

	Empathy	Sympathy	Indifference	Judgment
Pre-programme average	3.47	3.39	1.95	2.82
Post-programme average	3.55	2.73	1.81	2.43

As a measure of their level of interest in the programme, students were asked how often they had talked to friends and family about the topic, how often they had used the site outside class, and how often they had brought relevant materials to class. The responses for these items were then totalled to give an overall measure of that student's interest. In general, the interest-indicating action students were most likely to have taken was talking to their family about what they had been learning.

Nearly half the students (thirteen), claimed to have talked to their family three or more times during the course of the programme, while only six students had not talked to their family at all about the topic. Just over half the students had talked to friends about the topic outside class time at least once, but only two students had brought a relevant item from home to share with the class. Averaged over all the respondents, students talked to their friends 0.9 times each, talked to family 1.65 times, used the website outside class time 0.42 times and brought items to school 0.07 times. This gave an overall average interest score of 3.03, varying from zero to seven among the students.

Students were also asked which aspects of the programme (from a supplied list) they had most enjoyed. This matched a similar question in the student feedback form (see Section 5.3.4) and the student interviews (see Section 5.3.6). Among the 31 students included in the attitude assessment, the most-frequently listed aspect was the video, with 15 votes. The question section of the site (13 votes), Get the Facts section (ten votes) and the audioconferences (nine votes) also scored highly. The faxes and the site poll were the lowest-scoring aspects with one vote each.

5.3.3 Teacher Feedback Forms

A total of 53 teachers completed the feedback forms, 18% of the total number of contact teachers who were registered for the *Ethiopia Connection*. The teachers who took the trouble to return the feedback form are likely to be those who were most involved in the programme. This means that the results of the feedback are likely to show little about the perceptions of the programme among those who were less involved. The benefit is that the results indicate the impact of the programme when most of its aspects are implemented. The teachers who responded represented classes from year one to year ten, with the majority (35 respondents) representing primary level classes. When asked if World Vision's involvement had had any influence on their decision to take part in the programme, 26, or 68%, said that it had had a positive effect. The remaining 12 teachers felt World Vision's involvement had not affected their choice. None of the teachers mentioned any negative influence.

The teachers reported having used from three to 11 of the 11 aspects of the programme. On average, the teachers had used 6.8 aspects, most commonly the poster, written unit, internet site and video. When asked which aspects they found most useful (and allowed to choose up to four of the 11 aspects), the teachers chose an average of 3.9 aspects, most frequently mentioning the written unit, video and poster. When asked which aspects (again up to four out of 11) they found least useful, 11 of the teachers (20%) did not name anything. On average each teacher listed 1.7 items as least useful, with the audioconference, internet site, questions and messages most frequently mentioned. Table 5.3.8 shows teachers' ratings of the different aspects of the programme.

Table 5.3.8 Teacher feedback form: Programme aspect ratings

Programme aspect	No. of teachers used	No. most liked	No. least liked
Written unit	50	41	2
Internet, teacher use	31	14	8
Internet, student use	32	22	16
Faxes	30	6	8
Audioconferences	34	16	19
Questions	18	4	14
Messages	12	3	14
Discussions	26	7	4
Resource folder	35	27	3
Video	45	34	4
Poster	50	34	0
Total	**363**	**208**	**90**

Reporting on the perceived attitude changes of their students, almost all rated their students as having shown a mostly positive or significantly positive change, while none rated their students' attitude changes as negative. Figure 5.3.1 presents these ratings.

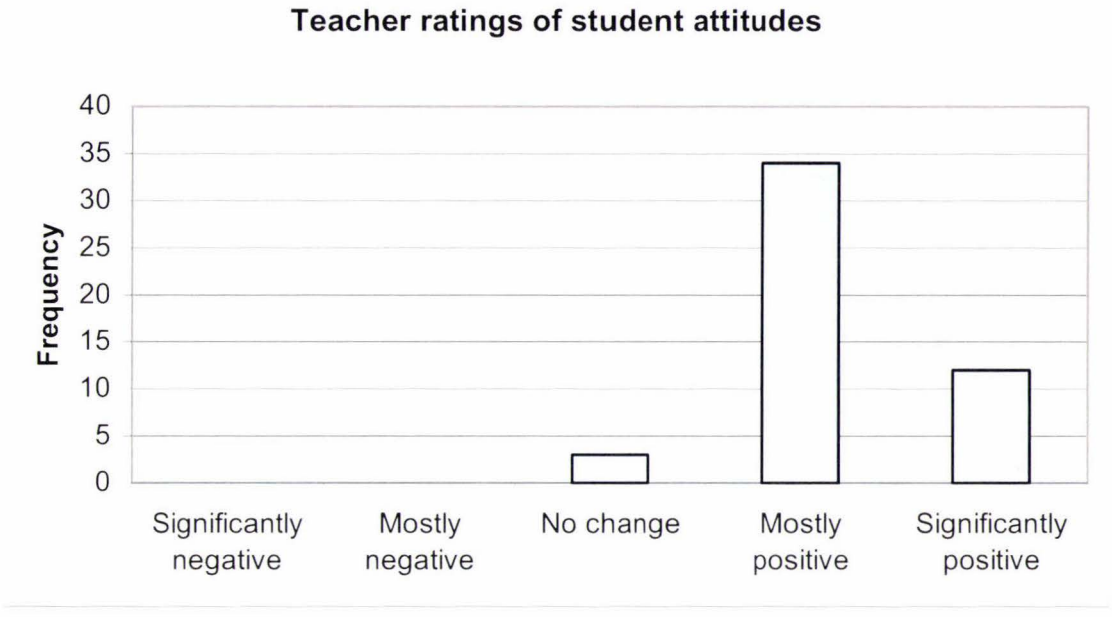

Figure 5.3.1 Teacher feedback form: Teacher ratings of student attitude change

In addition to analysing teachers' choices on the form, their comments were also analysed under several headings. According to their comments, teachers had registered for the programme because they had done it before, seen advertising for it or liked the materials that went with the programme. The programme aspects they found useful were often preferred because of their ease of use and range of activities, while teachers gave practical reasons such as timing clashes and accessibility for choosing aspects as least useful. The teachers reported that their students enjoyed the video most of all, followed by the website, audioconferences and hands-on activities.

The teachers saw the internet basis of the programme as beneficial because it allowed interactivity, was up to date and "real", and used computers, which they felt were intrinsically "fun" for students. Fewer disadvantages of the internet were mentioned, with the main one being teachers' own lack of access to computers or to the internet itself. Few

teachers made any suggestions for improvements in the programme, but of these, the most frequent suggestion by far was for shorter audioconferences with better sound quality. Describing their students' changes in attitude, teachers most often listed students' greater awareness of the hardships of others, and of the differences compared to their own lives. Many had also observed an increased compassion, a desire to help and a greater appreciation of their own good fortune.

5.3.4 Student feedback forms

A total of 176 students returned the student feedback form. Some schools sent in a student feedback form from every member of the participating class, while others sent only one or two forms. Thus the feedback comes from a relatively small number of schools. These students ranged in age from five to 13, with an average age of 9.9 years. Of those who identified their gender, 88 were boys and 81 were girls.

According to these students, the aspects of the programme that the largest number of them had used were the faxes, written materials, questions and audioconferences. Their most-liked aspects were the audioconferences, video and questions, while their least-liked aspects were the Get the Facts section of the site, audioconferences and written materials. Although the audioconferences was mentioned frequently in both students' most-liked and least-liked lists, the number of students who liked the audioconferences outnumbered those who disliked them by a factor of nearly four to one. Table 5.3.9 shows the ratings students gave to the different aspects of the programme.

Table 5.3.9 Student feedback forms: Programme aspect ratings

Programme aspect	No. who used	No. most liked	No. least liked
Get the Facts section of site	112	36	28
Puzzles	55	43	3
Site poll	14	3	11
Questions	121	72	15
Messages	53	25	3
Discussions	26	13	12
Audioconferences – phone	120	97	26
Audioconferences – on site	42	15	9
Latest news stories on site	73	25	23
Faxes	152	62	15
Video	119	93	7
Hands-on activities	108	55	22
Written material	131	56	26
Other	68	35	6
Total	**1181**	**630**	**206**

As a measure of students' interest level in the programme, they were asked how often they had talked about the topic or used the internet site outside class, and whether they had brought relevant items from home. These questions were based on the measures of student interviews that had been mentioned in the pre-programme teacher interviews. On average, students had talked about the topic to their family once or twice during the unit, had talked to their friends outside class once, had used the site outside class an average of half a time, and had brought one-third of an item to class. Table 5.3.10 summarises these data.

Table 5.3.10 Student feedback forms: Indicators of student interest

Number of times action was done	Number of students who:			
	Talked to friends	Talked to family	Brought items	Used site outside class
None	41	25	130	110
One	91	68	38	44
Two	44	83	8	22
Average	**1.04**	**1.35**	**0.31**	**0.52**

Notably, 75 of the students had taken part in previous 20 or 40 Hour Famines, while 49 had done the 2001 Famine. In addition to filling out the closed answers on the form, students also made comments in two areas – their suggestions for changes or improvements to the programme, and their general comments on the programme.

Of the suggestions for change, by far the most frequent was to improve the quality of sound in the audioconferences. The next largest group, 22 students, specifically said that no changes should be made. A similarly large group of students, mostly from the same school, suggested that the travelling teacher should be featured on television. Other frequent comments were to increase the number of puzzles and games, to include more information, and to "make life better in Ethiopia". Table 5.3.11 presents the suggestions given by the students.

Table 5.3.11 Student feedback form: Suggestions

Suggestion	Frequency
Improve the audioconference sound quality	31
Nothing/no change	22
Get the travelling teacher on TV	22
More games or puzzles	16
More information	8
Make life better in Ethiopia	8
Have more interaction with the children there	6
Make the site easier to find	4
More activities/resources	3

In the general comments field, 41 students took the opportunity to say that they had enjoyed the programme, and 23 said they had learnt a lot. Other comments described their interest in the topic, their compassion for the people of Ethiopia and their awareness of their own fortune. Table 5.3.12 summarises the students' general comments.

Table 5.3.12 Student Feedback form: Other comments

Comment	Frequency
It was good/enjoyed it	41
Learnt a lot	23
It was interesting	9
Feel sorry for the Ethiopians	9
More aware of own good fortune now	7
Had trouble with the audioconference sound	5
Liked the audioconferences	5
Now more aware of World Vision	5
Admire the travelling teacher	4
It was boring	4
Would like more games and puzzles	4
Liked the interaction with the children	3

5.3.5 Post-programme teacher interviews

Five teachers selected for their high involvement in the *Ethiopia Connection* were interviewed in the weeks following the conclusion of the programme, to add further depth to the data obtained from the teacher feedback forms. Two of the teachers interviewed were in primary schools, while the other three were in secondary schools. The schools ranged from decile 1 (low socio-economic) to decile 10 (highest socio-economic), with one private girls' school and four public co-educational schools represented.

Teachers' objectives for the programme mainly focused on achieving the learning and skills objectives listed in the syllabus. The next most frequently mentioned objective related to a desire to encourage compassion among their students. As one teacher said, "The kids

don't seem to be able to put themselves in anybody else's shoes very easily." Other teachers mentioned goals in information and communications technology area, or talked about the novelty factor of a programme like the *Ethiopia Connection*.

As in the feedback forms, the teachers interviewed saw their own lack of access to technology as the main obstacle to achieving their programme objectives. One teacher reported only having one hour per week access to computers, while others had only one computer to share among the entire class. Even the teacher from the decile 10 private secondary school, with much greater access to information technologies than the others, felt this lack. As she said,

> "I had the best of intentions to go back into the computer room, but again it's not your problem, it's our problem, it's access to the computers as well. I mean we have two rooms now which have them, but because the school is involved in this ICT thing, everyone is having to programme their students on so they can do it, so it's a nightmare."

Time was also a factor, both in total quantity to cover the programme fully and in matching schedules. This latter problem was mentioned by all three of the secondary teachers, especially in relation to the audioconferences, for example, "The audioconferences were just on at a time when we were not in class and it was just going to be too much."

The teachers were asked to specifically rate three aspects of the programme – the messages, audioconferences and video. Four of the five teachers rated the video as "essential". Ratings for the other two aspects varied from unimportant to very important, with no consensus across the five teachers.

Asked in general about aspects of the programme they had found positive, the teachers made a total of 78 comments. Some mentioned specific programme aspects, especially the video, but most mentioned characteristics of the programme as a whole, such as its interactivity, ease of use, high interest level, people focus and range of related resources. Some of teachers' comments relating to positive aspects of the programme follow.

- "I had a couple of courses to go to so had to get somebody else to take what I had set, but it was a tribute to you, the activities were so well-written, because this lady, her English is not too good, but she picked it up and "oh, that's what we're doing" and did it."
- "The kids were mind-blown that they were actually speaking and hearing somebody in Ethiopia and that was just – whoa – it really brought it home to them I think."
- "The language is really good. It's so easy to use. Especially because social studies is not my area of expertise – I'm a science and maths person – but it was a pleasure to pick up."
- "The video was really good, but then by having, by getting to know the family more closely when Sharon arrived there, that was really good for the students."
- "The kids certainly enjoyed it – that buzzing – 'can I go to the computer room today?'"
- "After I'd assessed the kids, most of them had an understanding of what life was like for those people, and the resources that they used."
- "It was high motivation because of the interaction, you know, the kids could do fun activities and then interact with Sharon, mail off questions to her, I just think it worked really well."

In contrast, teachers made only 13 comments when asked for the programme's bad points. These included frustrations with the poor sound on the audioconference (caused by the poor lines to Ethiopia), with the language level in the audioconferences and the faxes, and problems in navigating the site itself. Some of teachers' negative comments about the programme follow.

- "We tuned into one audioconferences and the quality of sound was really poor, and it was also the language, so after that we didn't tune in to any more."
- "The major things were the (language level of) the faxes and audioconferences, so they were probably the only things."
- "I found it hard to get into the forum part where the kids could talk or could write down their opinions on things. I found that a little bit hard to navigate around."
- "I thought afterwards that for our particular age group (year 3 and 4), apart from sponsoring the older kids who were doing the Famine, there wasn't actually a practical outcome we could do for them."

Asked about their observations of attitude changes among their students, the most frequent comment related to students expressing a desire to help others. For example, one teacher said, "They had really good suggestions of what they could do. Some were pretty out there, but they were really aware that they needed to help, which was good." Teachers also mentioned greater awareness of the differences, for example: "Things like 'I didn't know that they wouldn't have television'", a feeling of empowerment and increased respect for

those in need. One teacher described the latter point in this way: "At the start of the unit they were quite dismissive of people in the poor world, but the part of the site where they could interact opened their minds."

The teachers had very few suggestions for improvements to the programme. There were a total of seven comments putting forward ideas for improvement, and these represented six separate ideas. Four of these ideas related to increasing favourite aspects of the programme, specifically the puzzles, photos, ideas from teachers and contact with children. The other suggestions were providing a response for children too young to do the Famine, and making the website navigation easier.

In addition to questions relating to their perceptions of the *Ethiopia Connection*, the teachers were also asked to comment on the possibility of a CD-ROM-based resource, instead of the current written folder. Four of the five teachers gave an overall opinion of this idea. Of these, two preferred the existing folder, one would like a CD with accompanying notes, and one was happy to have a CD without notes. All five teachers discussed their reactions to the CD idea, with about one-third of the total comments supporting the idea, one-third opposing it, and one-third making suggestions or expressing requirements of a CD resource. Positive comments related to a CD's cheaper price, ease of storage and flexibility. Negative comments included the desire for written planning and the ease of use (to these teachers) of print.

5.3.6 Post-programme student interviews

Eight students were interviewed after the completion of the programme, to add depth to the information from the student feedback forms. Four of these students (two girls and two boys) were selected from the primary-level focus class, while the other four (again balanced for gender) were selected from the secondary-level focus class. Overall, three students rated the programme as about the same level of interest as other social studies units they had done. Three others rated it as "a bit more interesting", while two students felt it was

"much more" interesting. None of the students said that the programme was less interesting that other social studies units.

Students were also asked about the aspects of the programme that they enjoyed most and least. Overall, students made 39 positive comments about the programme and only 11 negative comments. By far the largest number of positive comments related to students enjoying learning about other people's lives. As one student said, "They showed you where people would live, like houses and stuff, and what would be like their school and education and stuff and how they would make food for their family." The students also liked the quantity of information they gained, something that had had obviously had an impact for one student, who said:

> "Something that meant a lot to me is the resources – what I found out about the resources that are available. Those real people here are starving and you're (rich people) not doing anything about it."

Several students also listed specific programme aspects such as the video, audioconferences and messages as highlights. The link with the Famine was also important. As one student expressed it:

> "Well it's been quite good because like knowing how they're getting on and since it's around the 40 Hour Famine time and so it's like in Ethiopia they're struggling and that's what the 40 Hour Famine is for and so it's been pretty interesting knowing how they're getting on."

Most of the negative comments referred to specific activities, such as taking notes ("dictation and stuff") or map work. For some, it seemed that these activities predominated. One student complained that: "There's not lots of creative things to do – like mostly it's just questions and questions." One student found some of the content disturbing, listing their least preferred aspect as – "Where they showed you what they looked like during the drought – how skinny they were and stuff, because it made you feel like sorry for them." Another was bored by the 20-minute audioconference because "it went on for a really long time with other people and it just got a little bit boring after a while."

Students were asked whether they thought their attitudes to the developing world, and to World Vision, had changed during the unit, and if so, how. These responses need to be taken with caution, since students knew that the interviewer worked for World Vision, and had been involved with running the programme, and therefore could be expected to modify their replies to fit what they thought was expected. All the students claimed that their attitudes to the developing world had changed, with two students claiming a "big" change. The changes they listed included wanting to help more (for example, "Before I didn't really notice it, and now I want to change it, want to help"), being more aware of inequalities and needs, feeling greater sympathy and having more respect for others.

Their reported changes in attitude towards World Vision included a greater awareness of the organisation's work and a greater desire to support it by doing the Famine – "When I read what you did I thought, wow, you contribute a lot of things for these people." Others found the studies had made their experience of the 40 Hour Famine more meaningful, for example "I wanted to feel how it would have been not to eat for a day." Some students said they had already been aware of World Vision and so had not changed their attitudes significantly – "Not really, because I always knew that they're helping people."

Students were asked to make suggestions for future programmes – things to keep or increase about the current programme, and things to change. In the first category, students wanted to keep the website, and specifically the messages to children. They also valued the opportunity to help the people they were learning about. When asked what changes should be made to the programme, five of the eight students said that the programme should not be changed at all. Of the remaining nine comments, five suggested increasing certain aspects of the existing programme, specifically games, messages and information.

5.3.7 Student assessments

Student results in the two focus classes on their normal end-of-unit assessments were collected to assess students' learning outcomes from the unit. For the primary-level focus class, the assessment task was to write a letter describing the environment in Ethiopia, the

importance of the land for survival, and the consequences of lack of food and water. The criteria for the "can do" level was stated in advance as describing the environment accurately, stating two reasons why the land was important to survival and two consequences of lack of food and water. Anything less than these criteria was graded as "can't do yet" and anything more as "can do well". Of the 28 students, 24 completed the task to the required criteria, and 13 of these exceeded or greatly exceeded the teacher's criteria, gaining a "can do well" grade. Four students did not reach the required criteria and received a "can't do yet" grade.

The secondary focus class used two assessment activities – a project and a written test. The project involved researching resource access in a country in the poor world (other than Ethiopia). The test was a series of written questions relating to access to resources in Ethiopia. Since the project did not relate directly to the Ethiopia Connection work, only the test results are presented here. Of the 20 students in the secondary-level focus class who were present for the assessment, 14 gained a pass mark (over 50%), and six gained a mark of 60% or greater.

5.3.8 Survey of Ethiopia staff

Three African-based World Vision staff who had been extensively involved in the *Ethiopia Connection* gave their feedback on the programme. Two of these were World Vision Ethiopia staff who had been involved with preparations for the programme, and with hosting the travelling teacher during her visit. The other staff member was based in Nairobi with responsibilities covering Northeast Africa, and had been involved with the preparation phase only. All three counted their contribution to the programme as part of their normal duties. Overall, the preparation phase had taken approximately 15 days of staff time, mainly spent in field research and in accompanying the video team who were sent from New Zealand. During the *Ethiopia Connection* itself, they spent a total of approximately 20 days on the programme, mainly accompanying the travelling teacher on visits to the project, school and family.

Problems and issues:

- Awkward timing of the video trip, when communications staff were already busy reporting on the drought.
- Difficulties with internet access during the travelling teacher's visit.
- Some "last-minute rush" in getting ready for the programme itself

Benefits and positives of the programme:

- The opportunity to show "ordinary" African issues, rather than crisis.
- The opportunity to encourage cultural exchange among the children of Ethiopia, and those of New Zealand
- The quality of the resources and of the website itself
- The "systematic" organisation of the programme as a whole
- The chance for Ethiopians to be heard, without the usual "marketing distortions"
- A "cementing" of relationship between World Vision Ethiopia and World Vision New Zealand
- The learning gained by the Ethiopian students involved in the programme, especially from the visits of the travelling teacher
- The personal example of the travelling teacher – the way she treated people, and her lifestyle in general
- The learning gained from the experience of working in a programme that was different from previous communication projects
- Personal enjoyment – one staff member rated the *Ethiopia Connection* as his "single most enjoyed work" of the year.

Suggested programme improvements:

- To increase the forward planning and thus avoid a "last minute rush"
- To send someone from Ethiopia to New Zealand to have a similar experience to that of the travelling teacher.

5.3.9 Debrief of travelling teacher

The travelling teacher's comments during the debrief interview have been summarized under seven main headings – a) the time the teacher and others spent on the programme, b) issues and problems for the teacher, c) technical issues and problems, d) issues and problems for Ethiopian staff or community members, e) benefits for the travelling teacher, f) benefits for Ethiopian staff or community members, and g) suggestions for the future.

a) Time spent:

- Preparation - three to four days of reading (spread over time), four days of formal training at the World Vision office, one day of medical preparations and packing.
- While in Ethiopia, the travelling teacher worked "a good 40 hour week" plus travel time. When visiting the projects, some days were "very long".
- Most of this time was spent on experiences that would form the basis of reports back to New Zealand children; on answering questions and thinking about or planning the daily stories.
- If there had been more time away from these tasks, the teacher felt she could have spent more time with the city school, encouraging them to take part in the on-site discussions with New Zealand students.
- During the teacher's visit, the Ethiopian staff spent time accompanying her during the day, and making preparations for her meetings and visits.

b) Problems and issues for the teacher:

- The task was both physically and emotionally exhausting, requiring time to recover and debrief after returning to New Zealand.
- There was a need for clearer priorities so that she could judge between, for example, longer stories or more time with the city school.
- The translator was key to the success of her time in the village, so a change of translator mid-programme caused difficulties.
- There was sometimes conflict between instructions to pay for all costs, and WV Ethiopia's expectation to cover some costs as part of their normal work.

- Some questions from students were hard to understand. Possibly the teacher could have been given guidelines on how to interpret these.
- The city school needed to have been prepared more in advance of the teacher's visit, so the school knew more about what would be involved.
- The teacher felt uncertain of her position when was often asked to speak to groups of people during her visits to schools and community groups.

c) Technical issues and problems:

- The website back office was inefficient and made question-answering slow. The process was changed during the programme, to reduce the number of steps.
- Internet connection times made it difficult to communicate. Faxes seemed more reliable, and should have been used more often.
- An attempt to connect the teacher's laptop with the World Vision Ethiopia network caused the laptop to crash. This took several hours to fix and resulted in some loss of data.
- The city schools that were asked to participate in the onsite discussions did not have sufficient access to the internet to do this independently.
- Telephone lines for the audioconferences were not as clear as was needed

d) Issues and problems for Ethiopian staff and community members:

- In Ethiopian culture, hospitality is very important. The people in the community were often disappointed when the teacher's schedules required that she leave their home without sharing coffee with them.
- The World Vision Ethiopia staff obviously felt responsible for the travelling teacher, and she felt they were sometimes a little overprotective of her
- The programme has strengthened the feeling within the World Vision Ethiopia office of a strong relationship with World Vision New Zealand. There is a potential conflict with WVNZ's decision not to fund future projects in Ethiopia.

e) Benefits to the teacher:

- The enjoyment of the trip itself, the chance to travel in the developing world and to meet people and get to know some of them in some depth.
- The chance to be involved in an "interactive and effective education package" and to see New Zealand students learning from her work.
- The chance to make the link with development, a subject that she was passionate about.
- The chance to serve God in her work, and specifically to serve people in need, which fitted with her own Christian commitment.
- The chance to use and develop skills, especially in communication and in cross-cultural living.
- The resulting challenge and readjustment to her future directions.
- Overall, the teacher rated the *Ethiopia Connection* as "the most enjoyable job I have ever had".

f) Benefits to people in Ethiopia:

- The teacher felt that the Ethiopian staff enjoyed the chance to "give back" and to feel they were contributing to a common effort.
- The staff and family enjoyed seeing the video and other materials.
- The community gained the chance to be in contact with the wider world, and to learn more about it.
- The schools gained from the teacher's visits, and especially from her classroom talks about New Zealand.
- Several groups made donations to the project in Ethiopia as a result of the *Ethiopia Connection*. For example, a school in Turkey that the teacher visited on her way to Ethiopia raised money to buy an ox for the family featured in the video. This ox was delivered during the teacher's visit.

g) Suggestions for the future:

- In choosing future travelling teachers, cross-cultural experience is essential. The teacher must be able to show sensitivity when dealing with people from all cultural backgrounds and to anticipate possible problems.
- The teacher needs even more training than was available this time, especially in understanding the situation in the county to be visited, and in understanding the priorities of the programme itself.
- Preparation within the country is also important, especially of the schools, and of the means of communication.

5.3.10 Famine results

Schools' participation in the annual World Vision 20 and 40 Hour Famine in measured in two ways. Firstly, the school is either registered or not registered for the Famine during any particular year, indicating their expressed intention to participate. Secondly, the money raised by the school is counted to indicate their level of involvement and their success in fundraising for the Famine.

Famine registrations from 1998 to 2001 were examined for each of the schools registered for one or more of the current or previous internet connections (excluding the first Connection, which occurred after the Famine in that year and therefore could not have affected the year's Famine results). This analysis showed that 31 schools registered for the Famine only in the year or years they were involved in an internet connection (and not the previous year(s)). A further 20 schools registered for the Famine for the first time (since 1998) while doing an internet programme, and then continued to do the Famine even though they did not always do the internet programme. The total money banked for the Famine by schools grouped by their involvement in the internet programmes is shown in Table 5.3.13. In the table, the years that each group was involved in an internet programme are shaded for easy reference.

Table 5.3.13 Famine banking by internet Programme Registrations

Years registered for internet	Number of schools	1998 banked	1999 banked	2000 banked	2001 banked
1999 only	162	$133,805	$139,276	$133,175	$146,836
2000 only	125	$139,877	$130,004	$162,050	$145,277
2001 only	187	$162,255	$166,327	$168,687	$201,130
1999 and 2000	39	$22,080	$23,111	$20,026	$18,432
2000 and 2001	45	$56,020	$54,419	$64,571	$60,613
1999 and 2001	22	$18,385	$25,604	$25,011	$27,447
1999, 2000, 2001	43	$63,334	$73,719	$73,732	$80,924
Total – all 2001	297	$299,994	$320,069	$332,001	$370,115

1999 = *Mongolia Street Connection*

2000 = *Rwanda Family Connection*

2001 = *Ethiopia Connection*

(The first internet programme, the *Sunflower Connection*, which focused on Malawi, has been ignored as it was not related directly to the Famine, and as it occurred after the Famine, being held in July 1998, four months after the Famine in March of that year.)

Looking at the Famine banking as shown in Table 5.3.13, a clear pattern emerges in which almost every group of schools raised more money during the years they participated in the internet programme than they had raised previously. In some groups, the increased fundraising seemed to be sustained in later years, whether or not those schools continued to participate in internet programmes.

Table 5.3.14 Comparison of Famine banking by year for all *Ethiopia Connection* schools, and for all Famine participants, 1998 to 2001

	1998 banked	1999 banked	2000 banked	2001 banked	% increase 2000 to 2001	% increase 1998 to 2001
Ethiopia Connection schools	$299,994	$320,069	$332,001	$370,115	11.5	23.4
All Famine participants	$2,547,000	$2,564,000	$2,553,000	$2,574,000	0.8	1.1

Table 5.3.14 shows the total raised by the 297 schools that registered for the *Ethiopia Connection*, by year from 1998 to 2001. For comparison, the figures for total banking by all schools, groups and individuals participating in the Famine are also shown for each year. The 297 schools registered for the *Ethiopia Connection* raised a total of $370,115 for the 2001 Famine. This represented an 11.5% increase over the amount the same schools raised the year before, and a 23.4% increase over the amount they raised during the 1998 Famine, before any of them had been involved with a World Vision internet programme. In comparison, total Famine fundraising increased by only 1.1% over those years.

This chapter has presented the results obtained from the three phases of the evaluation. In Phase One, a small group of teachers was interviewed for their expectations for the *Ethiopia Connection*. In Phase Two, the process of the programme was observed by analysing registration data, examining website participation and observing in focus classrooms. In Phase Three, the outcomes of the programme were examined using student attitude assessments, student learning assessments and Famine fundraising figures. Participants' perceptions of the *Ethiopia Connection* were obtained through interviews and feedback forms from teachers, students, World Vision Ethiopia staff and the travelling teacher. In Chapter Six, the programme theory for the *Ethiopia Connection* identified in the Literature Review is combined with teachers' expectations as found in Phase One. The

results from Phase Two and Three are then discussed in the context of the research questions.

Chapter Six: Discussion

Chapter Six discusses the results of the evaluation in order to address the seven research questions that focussed this study. For each question, the relevant data are discussed in reference to the literature, in preparation for the conclusions that are drawn in Chapter Seven.

6.1 Teacher expectations

The first research question was: "What did teachers want from a programme like this?" Phase One of the evaluation was designed to answer this question through the initial teacher interviews. The teachers identified five key requirements and two issues related to programmes like the Ethiopia Connection. Their requirements were a) a topic with high interest for students; b) the opportunity to expose students to the realities of poverty; c) a wide range of related resources to supplement the internet site; d) ease of use, for both students and teachers and e) a high level of interactivity. The two issues that the teachers saw as limiting the degree to which they could use such programmes were a) a lack of access to computers and the internet and b) time constraints.

The most consistent theme from all the teachers was a desire for a programme that was interesting to students. The high priority they placed on this feature relates to the link between student interest and learning discussed in Chapter 2 (Carr, 1998; Ratner & Stettner, 1991). The teachers associated student interest with a topic that was relevant to students, that "tapped into their interest base, their culture", and with specific facts or incidents that produced a "cultural shock" in the same way that the children living in tunnels in Mongolia, or eating mice in Malawi, had made a strong impression in previous programmes. Leask and Younie (2001) claim that such cognitive conflict is associated with deep learning, and see it as a key feature of ICT-based international communication links, because these programmes expose students to people in real-world situations that are very different from their own lives.

Positive feedback and control of their own learning were other ways teachers felt student interest could be increased, while some also mentioned students' inherent enjoyment of computers and of puzzles and games. Many of the teachers' definitions of a unit that was going well were reflections of student interest. The teachers described features of classes with high interest in a topic. Students in these classes were described as expressing a desire to do social studies or to go to the computer room, doing extra work, talking to each other outside class, telling their family about the topic, and bringing related items from home to share with the rest of the class.

Another theme that came through from the initial interviews was the value teachers placed on exposing students to the way people in poverty live – to the "real world" as at least one teacher put it. This theme was also evident in the post-programme teacher interviews and feedback forms, and relates well to the emphasis in the social studies literature on exposing students to real-world situations (Jadallah, 2000; Barr et al, 1997). Teachers specifically stated their desire to encourage compassion in their students, and they were positive about the link with World Vision and the opportunity to respond to learning through the 20 and 40 Hour Famine. While changing students' attitudes and behaviour towards the developing world is a high priority for World Vision, it was interesting to see that teachers also valued attitude change so highly. This finding may reflect a bias in the types of teachers who choose to participate in a programme like the *Ethiopia Connection*. Those who were negative towards World Vision, or indifferent towards development education, would be less likely to register, and those who did so would be less willing to consent to interviews or fill in feedback forms. Nevertheless, these data indicate that at least some teachers want to introduce justice and equity issues into their classroom, and appreciate the opportunity that the World Vision internet connections and education resources give them to do this.

The importance teachers placed on having a range of related resources available was another surprising result from the interviews. Given the amount of information on the website and on the free poster, and the fact that schools had to pay to obtain the folder or to gain long-term access to the video, it had been expected that most teachers would feel that

the website and poster alone were sufficient. However, several teachers mentioned the availability of other resources as a reason for registering, or as a key requirement for a successful programme. Such a range of different media would allow for greater choice of learning activities, and more integrated, in-depth study of the topic, which are important requirements for effective learning in social studies (Sewell & Brown, 1999). The existence of related resources in several media was the attraction for most teachers, but some listed specific materials. For example, one secondary teacher felt she would be unable to teach a full unit without the depth of information in the folder. For primary teachers, the visual resources, such as the poster and video were mentioned as especially useful.

Teachers were concerned that the programme should be easy to use, both for themselves and for students. For example, they wanted clear syllabus links and well-set-out teacher instructions. By reducing preparation time, clear teacher notes would serve to allow teachers to focus on their students, and so could indirectly benefit student learning. Teachers also wanted the website to be attractive and easy to navigate, largely for their students' benefit. Some teachers also valued ease of use for themselves. They mentioned their own lack of skill with computers, and may have been worried about revealing this to their students if the website was too complex.

The interactivity of the programme was also important to teachers. This finding correlates with the observation in Chapter Two that interactivity is an important feature of successful computer-based education, because it allows students to control their learning and to become part of a learning community (Sewell & Brown, 1999; Ramasubramanian & Logie, 1999). Teachers also wanted opportunities for students to work collaboratively, especially on problem-solving tasks. This priority relates well to the implications of social constructivism (Jadallah, 2000) and the effective use of computers (Crook, 1994).

The major issue raised by the teachers was their difficulty in gaining adequate access to the internet. Some teachers had only one computer in their classroom, and were aware that this restricted students' opportunities to participate regularly in the communications aspect of the programme. Others had a computer room in their school, but had to compete with other

subjects to gain bookings. The limiting effects of teachers' lack of access to computers has been recognised before (Alcock, Carrell & Ward, 1999).

The other major issue that teachers raised related to time restrictions. Secondary teachers found their timetable made it impossible to participate in the audioconferences, while some teachers found it difficult to start the unit on time or continue for the full four weeks due to commitments to school camp or to other units. Teachers felt these restrictions would prevent them from taking full advantage of some aspects of the *Ethiopia Connection*. Thus the range of programme aspects, including offline elements such as the poster, classroom activities, faxes and audioconferences, is especially important in providing ways for teachers to still participate in the programme despite time or access restrictions.

Having examined teachers' expectations of the *Ethiopia Connection*, these now need to be incorporated into the programme theory. Figure 6.1 repeats the diagram from Chapter Two, summarising the seven pillars of the programme, as derived from the education literature. Several of the priorities teachers mentioned relate to these pillars.

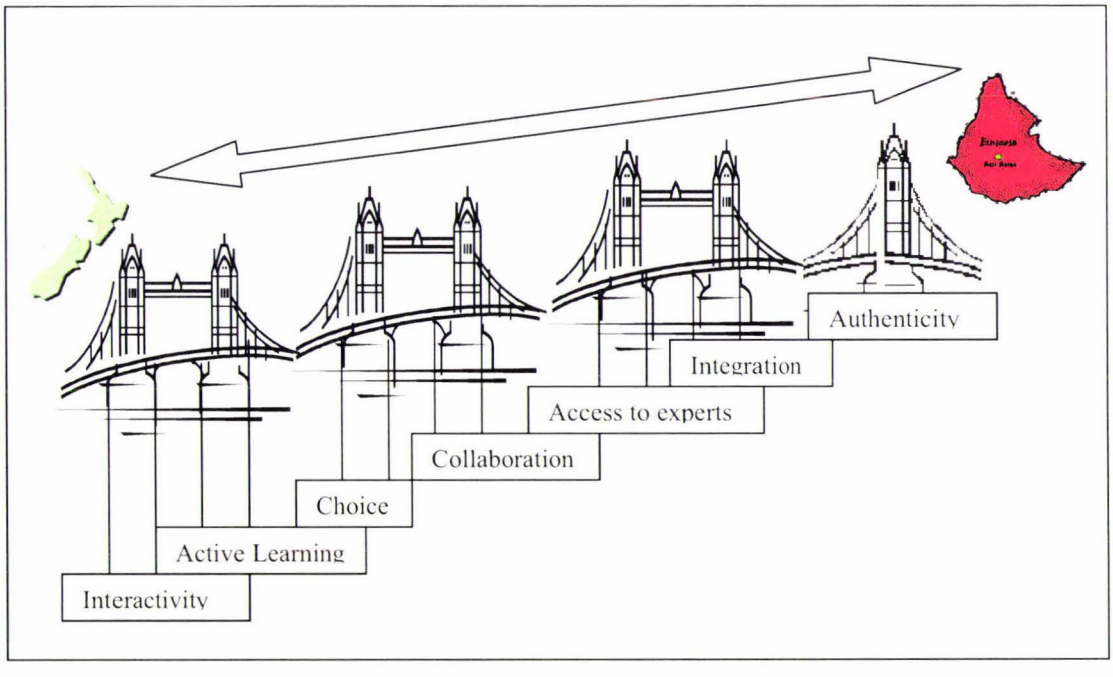

Figure 6.1 Requirements for the *Ethiopia Connection*: Support pillars for the bridge

The teachers' comments confirm the importance of website interactivity and collaboration among students as key requirements for the programme. Their desire for the programme to have a high interest level for students relates to several of the pillars, especially active learning, choice and authenticity, while the range of resources relates to integration. There were two further themes that were important to the teachers but that do not seem to be covered by the current programme theory. These themes are the importance of encouraging compassion and an understanding of the developing world; and the desire for an easy-to-use, flexible programme. Figure 6.2 shows the updated programme theory diagram, incorporating ease of use as an eighth pillar, and the goal of compassion and understanding as an underpinning foundation. This updated programme theory becomes the benchmark for Phases Two and Three of the evaluation.

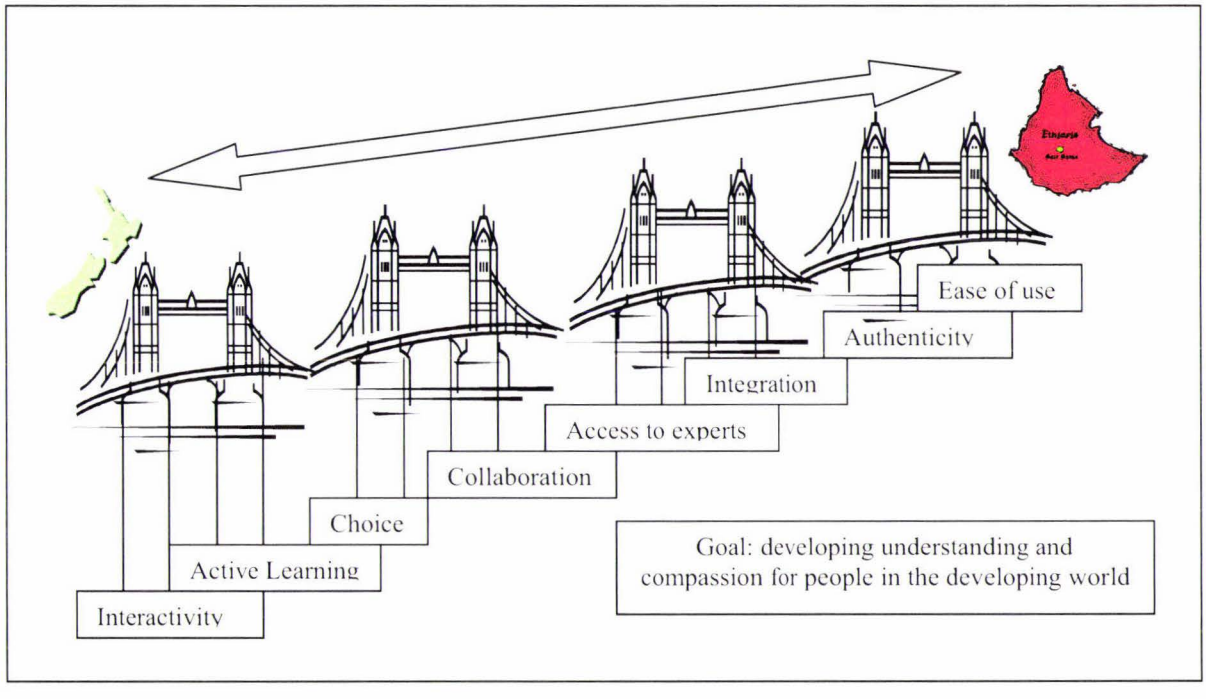

Figure 6.2 Updated requirements for the *Ethiopia Connection*: Support pillars for the bridge

6.2 Programme use

The second research question was: "How was the programme used and to what extent did the programme design and process fit with designers' and teachers' expectations of it?" The first half of this question is addressed here, while the second half will be addressed under Outcomes for World Vision and Teacher Perceptions. Most of the data from Phase Two of the evaluation gave information on how the programme was used, with different data collection techniques contributing to different aspects of programme use. The registration data gives information about the number and type of students participating in the programme. The website counts show the extent of this participation, while the classroom observations give an indication as to some of the ways the programme was used in schools. The site polls and question analysis relate to student attitudes and so will be discussed in Section 6.3, under the research question relating to learning outcomes.

Over the four World Vision internet programmes to date, the number of schools and students participating has increased steadily. This trend could be due to an increasing awareness of the programme among schools as the programme is advertised each year, and/or to the increasing number of schools that have access to the internet and are therefore able to take part in a programme such as the *Ethiopia Connection*. Many schools registered just one class, probably because one interested teacher decided to participate. Some schools registered several classes, and many of these had all classes at a particular level involved in the programme, indicating a commitment to the programme by the school as a whole. The age range of students shows that the programme is largely used by primary and intermediate classes. However, there are also significant numbers of secondary schools participating, indicating that the programme is attractive to all levels.

The geographical spread of registered schools is an interesting result and may reflect a wider regional variation in the relationships between World Vision and schools. Volunteers in each region visit schools during February each year to promote the 20 and 40 Hour Famine. While there, the volunteer may also promote the internet connection, but this depends on the individual volunteer's knowledge about the programme, their confidence in

promoting it, the amount of time they are able to spend with each school and the receptiveness of the person they are meeting with. Volunteers are trained in regional conferences – one for the upper North Island, one for the lower North Island, and one for the South Island. The higher numbers of South Island schools registering for the *Ethiopia Connection* may indicate that those volunteers are being more effectively prepared to promote the internet connections, while the low figures for the lower North Island may indicate less effective training on the programme in that region.

Once registered, schools used the programme in varying ways. Only 54 of the 296 schools registered for the programme were represented on the site as having sent questions, messages, discussion topics or classroom ideas. This observation could be interpreted to mean that the other 242 schools had not actively participated in the programme. However, a number of schools in this group are known to have participated, either because they spoke during an audioconference, or because the teacher communicated personally with the programme organisers. It is, therefore, likely that most of these 242 registered schools whose name does not appear in the communication sections of the website, nevertheless did participate in the programme in other ways, using the website information, reading others' contributions and/or using the classroom activities from the unit.

The teacher feedback forms provide further evidence for the conclusion that schools that did not appear in the website questions, messages and discussions, nevertheless did take part in other aspects of the programme. The 53 teachers who took the trouble to send these forms back might be expected to have been more involved than average, yet while all had participated in the programme, only 18 had used the question section and only 12 had sent messages. In fact, these two aspects were the least-used of all the parts of the programme, possibly because their effective use required a level of access to the internet that many teachers did not have. Most other programme aspects, such as the faxes, audioconferences, resource folder and main website, were used by about half of the teachers who responded. Even the two most-used aspects of the programme, the poster and the free unit, were only used by 50 of the 53 teachers giving feedback. There is, therefore, no aspect of the programme that is used by all participants. Thus we gain a picture of teachers picking and

choosing from among the different programme features, using those that suit their class, and that fit with the time and equipment they have available.

Even in the two classes visited in the classroom observations, some of this variability in programme use is evident. Had observations been possible in a wider group of schools many more variations would have been seen. The most obvious difference resulted from the classes' differing access to the internet. The secondary class did not have a computer in their normal classroom, but did have occasional access to a computer room. The class, therefore, had some sessions in which the computer was not used at all, and others in which the whole class spent almost the entire period working in pairs on the computers. In contrast, the primary class had internet access in their classroom, so pairs or small groups were often working on the website while the rest of the class completed other activities.

Another difference between the classes was in the type of activities used in non-internet-focused sessions. The primary class used several activities from the poster and free unit, focusing especially on group work and visual resources. This choice of resources may reflect the activities that best suit the age group, but may also indicate a bias of this particular teacher towards visual learning styles. The secondary class also used a visual resource in one activity, but began the lesson with note-copying – an activity that did not appear in any of the programme resources. From the later interviews with students from this class, it is known that this teacher used other activities that were not part of the programme, for example other instances of note-copying, and a major project in which students chose to research poverty in a country other than Ethiopia. These observations indicate that the teacher was incorporating aspects of the *Ethiopia Connection* into a unit that she had taught previously, a practice that probably also occurred in other schools. The ease with which teachers could choose parts of the programme and blend in other resources and activities indicates the programme's flexibility, but also points to a possible limitation on its effectiveness, since the programme was rarely implemented in full, without dilution.

The classroom observations also highlighted three main practical issues with the programme's implementation, all related to supervision. Firstly, with only one teacher in

the classroom, there was a risk that students might write inappropriate questions or messages and send them without the teacher's knowledge. The suggestion from one of the teachers in the interviews to withhold the passwords so that all questions and messages had to be vetted by the teacher before being sent might have prevented this particular problem. A second supervision issue related to the way students worked together during group computer use. The primary group that was observed sending messages alternated between brief periods of engagement and long periods when one or more group members was uninvolved because other members had taken over. Because this group was working on a computer in another room, the teacher was not present to intervene. There may be a need for clearer instructions on group work, such as giving students roles to perform while working together on the computer. The third issue was highlighted by the secondary teacher's reminder to students not to visit entertainment websites when they were supposed to be working. In the computer room, it was difficult for one teacher to monitor all groups, and even in the primary classroom, the teacher was often busy with the rest of the class and unaware of what the group working on the computer was doing. The risk of students visiting non-work-related sites in class time is inherent in any classroom use of the internet, and is difficult to prevent (Elliot, 1999).

6.3 Learning outcomes

The third research question was: "What were the learning outcomes, in terms of knowledge, understandings, skills and attitudes, especially attitudes to people in need, interest in development topics, and in social studies in general?" This question can be divided into three main aspects: (a) cognitive learning, (b) interest level and (c) attitudes to people in need. While these aspects of learning can be interrelated (Cole, 1991; Ratner & Stettner, 1991), they will be discussed separately for greater clarity.

The student assessments were designed to assess cognitive learning. In both focus classes, well over half the students achieved a pass mark or better in their classroom assessments, indicating that student learning reached or exceeded the teachers' expectations. However, there are several limitations on these data. Classroom assessments were available for only

48 students in the two focus classes. These students were not a random sample of the *Ethiopia Connection* participants, so their assessments cannot be extrapolated to the whole group. Moreover, due to a communication problem, the secondary teacher used her own written test, rather than the assessment activity from the unit. A copy of this test is not available, so it is not possible to know to what extent it evaluated the desired learning outcomes. Since this was the first unit of the year, and since the members of this year nine class had only recently arrived at the school from their various intermediate schools, it was also not possible for the teacher to give feedback on these students' performance in the Ethiopia unit relative to their usual level of achievement. The rather low scores for this class may therefore reflect the validity of the test itself, or the students' previous learning, rather than any problem with the programme.

Other evidence for cognitive learning is found in the teacher feedback forms and interviews, and in the student feedback forms. When asked about the changes in students' attitudes, teachers frequently mentioned their students' deeper understanding or greater awareness of the issues, which are both cognitive outcomes. More significantly, in the student feedback forms, the second most frequent comment was that they had learnt a lot. The fact that so many students made this spontaneous comment indicates that learning was a significant outcome for them.

Students showed a high level of interest in the topic and in the programme in general. In the post-programme teacher interviews and teacher feedback forms, teachers frequently mentioned that their students had been very interested in the topic, and had enjoyed the unit. Students also mentioned their interest and enjoyment of the programme in their feedback form comments. In addition to these comments, several questions in the student feedback form and in the post-programme attitude assessments were designed to measure the level of student interest in the programme. The frequency with which students reported having talked to each other or to family members about the topic, visited the website outside class time, and even brought items from home to share with the class, all indicate that students were going beyond the involvement required by their teachers, and so must have been highly interested in their studies.

While attitude change is difficult to assess (Bouma, 1996), there are strong indications that the programme also influenced this aspect of student learning. Students themselves reported that they were more aware about, and more sympathetic towards, people in need. This perception is confirmed by the teachers, who overwhelmingly reported positive changes in students' attitudes, including greater respect and an increased willingness to help. Students' answers on the site poll also showed a change in attitude, with far fewer students still attributing blame to people for their poverty by the end of the programme, and more students recognizing the role of governments and international institutions in causing poverty.

The other forms of attitude assessment showed less clear results. The attitudes expressed in the early and later questions sent to the site did not change, while the post-programme attitudes were similar to those seen before the programme began. The lack of a clear attitude change may be due to the small numbers involved in these two assessments, but it may also reflect the fact that students' attitudes were already relatively positive at the beginning of the programme, leaving little room for measurable change. It should be remembered that many of the students participating in the *Ethiopia Connection* had already done the 20 or 40 Hour Famine in previous years, and some may have participated in earlier World Vision internet connections, or learned about poverty and the developing world through other school units. These previous experiences could explain their positive attitudes at the beginning of the programme, and the difficulty in showing attitude change resulting specifically from the *Ethiopia Connection*. The pre-programme attitude assessments indicated that students generally had positive attitudes towards people in need, with their comments on the photographs and their answers in the written assessment reflecting sympathy and empathy. However, there was also some judgment, with students describing people as dirty, assuming they had no friends, or attributing poverty to laziness or ignorance. This is the attitude that shows the most change in the site poll, and in teachers' reports that their students showed more respect at the end of the programme.

6.4 Outcomes for World Vision

The fourth research question was: "What were the outcomes for World Vision, in terms of registrations and dollars raised for the Forty Hour Famine, and in relationships built with schools?" There is a clear pattern in the records of Famine banking, with schools consistently contributing more money to the 20 and 40 Hour Famine in years when they participated in an internet connection. Compared with the year before the internet connections began, schools that participated in the *Ethiopia Connection* raised 20% more in 2001 than would have been expected had they increased at the rate for the Famine as a whole. This increase has two components – funds raised by schools that had not previously registered for the Famine, and an increase in fundraising among schools that had done the Famine in previous years.

There are two possible causes for the increase in fundraising among schools that were already involved with the Famine. Firstly, it is possible that some schools had already decided to put more effort into the Famine and were also more inclined to participate in the *Ethiopia Connection*. In this case, the increase would not be due to the programme, but rather the school's participation in the programme and the increase in fundraising would both be due to some other factor. Since the overall banking for the Famine did not increase significantly, it seems unlikely that such a factor was present. The second possibility is that the programme itself could have made students and teachers more aware of the need for fundraising, and helped them to feel more involved with the issue. Teachers would then have promoted the Famine more vigorously. As a result of that, and of their own involvement in the programme, students would have been more likely to participate in the Famine, and to make a greater effort to get sponsors, thus boosting the school's Famine total.

As well as boosting the amount of money raised by schools, the *Ethiopia Connection* also helped to establish and build World Vision's relationships with the schools that participated. Of the 296 schools that registered for the *Ethiopia Connection*, 187, or 63%, had not taken part in any of the previous internet programmes, and so were adding a new

aspect to their relationship with World Vision. The other 110 schools had already participated in one or more previous programmes, and 43 of these had done both the *Mongolia Street Connection* and the *Rwanda Family Connection*. Therefore, there is a significant number of schools whose students are studying some aspect of the developing world on an annual basis, thus deepening the students' awareness of poverty issues.

6.5 Student perceptions

The fifth research question was: "What were students' perceptions of the programme, both positive and negative?" Students' responses in the feedback forms, and their comments on the forms and in the interviews, were overwhelmingly positive, reflecting enjoyment of, and interest in, the programme. The main negatives mentioned were the lack of clarity in the audioconference sound, and a small number of students who found the programme boring.

The fact that the students who returned the feedback form listed an average of 3.6 aspects of the programme as "most liked", but only 1.2 aspects as "least liked" implies that many students found it difficult to think of parts of the programme that they had not enjoyed. For the students, the highlights of the programme were the audioconferences, video and questions – aspects that are interactive and/or personal, allowing students direct or indirect contact with the people they were studying. Of the three least-liked aspects, the written materials and the Get the Facts section of the website were both text-based. Students' dislike of written work was confirmed by their responses in the interviews, in which several students made negative references to note-copying and dictation. The other least-liked aspect was the audioconferences, probably because of the poor sound quality mentioned by several students in their comments and interviews.

When asked for their suggestions for improving the programme, many students could not think of any improvements, or specifically stated that the programme should not change. Of the suggestions that were made, the most common was to improve the audioconference sound. Some students wanted increases in certain programme aspects, especially the

puzzles and the interaction with children in the focus country. This finding is interesting because the puzzles and messages were not among the highest-rated aspects. Possibly students felt that there was already enough emphasis on their most-liked programme aspects such as the audioconference and video, but felt that the puzzles and messages could have benefited from expansion or improvement.

6.6 Teacher perceptions

The sixth research question was "What were teachers' perceptions of the programme?" Like the students, the teachers who responded to the feedback form or took part in the interviews made far more positive than negative comments, and their suggestions for improvement focused on increasing existing aspects of the programme, rather than radically changing it. Teachers especially appreciated the interactivity of the programme, its focus on people, its ease of use and the range and depth of related resources. It is noteworthy that all these programme features were identified in the literature review as important aspects of the programme theory. The teachers rated the written unit, video and poster as most useful. This emphasis on the depth and variety of related resources is consistent with recommendations from the literature to integrate computer-based activities with other classroom experiences (Sewell & Brown, 1999; Soler & Trewern, 1998).

The main negatives identified by the teachers were related to the language level in the traveling teacher's stories and faxes, which was too difficult for some junior classes, and practical issues such as time and computer access constraints. They saw time and access as the main barriers to achieving their objectives for the unit, and as the main disadvantages of the internet basis of the programme. Internet access was a problem for all levels, but time constraints had the greatest impact for secondary teachers, whose timetable made it difficult for them to participate in certain programme aspects, especially the audioconferences.

In addition to their timing difficulties, the audioconferences were also controversial in other ways. Of the 34 teachers who had used them, nearly half rated them among their most-liked aspects, yet overall the audioconferences were the aspect most frequently rated as

least-liked. This dichotomy is also present in the students' ratings, with audioconferences rating highest in the most-liked list, and second highest in the least-liked list. Both teachers and students mentioned the problem with sound quality, which may explain the negative ratings, while those students and teachers who liked them may have appreciated the audioconferences' interactivity and the fact that they used a novel learning medium. Teachers' suggestion to shorten the audioconferences and improve sound quality would result in more positive ratings for this programme aspect, should it be possible to achieve this within the constraints of telephone quality in the developing world.

6.7 Perceptions in Ethiopia

The seventh research question was: "What were the perceptions of the programme among World Vision Ethiopia staff, and Ethiopian community members?" Overall, the World Vision Ethiopia staff and the travelling teacher were enthusiastic about the programme. While they identified several problems with programme implementation, they also reported a number of significant positive perceptions and impacts of the programme in Ethiopia. Firstly, the programme brought a practical benefit, through specific donations such as the Turkish school's gift of the ox and through the overall increase in Famine fundraising, some of which went to projects in Ethiopia. Secondly, the staff and community members saw the programme as an opportunity to represent their work to people outside their country, and to have their issues heard. It is pleasing that they felt this was achieved, as the desire to give a voice to the poor was one of the bases of the programme. Thirdly, community members and children in Ethiopia learned about New Zealand, while World Vision staff learned skills from their involvement with the programme. Lastly, the staff and community members appreciated the opportunity to "give back" – to feel they could contribute something worthwhile in a situation in which they were usually the recipients of help.

These tangible and intangible benefits of the programme to people in Ethiopia need to be weighed against its negative impacts. The most significant of these was the additional workload imposed by the present study, by the travelling teacher's presence and by the

technical requirements of the programme. The World Vision Ethiopia staff members involved were regularly responsible for hosting visitors, managing communications and handling technical problems, so the tasks they undertook for the *Ethiopia Connection* were part of their normal work. However, the programme's complexity and the fact that it continued for an entire month made it more labour-intensive than the average supporter visit or communication assignment. Given the workload, it is important that programmes like the *Ethiopia Connection* continue to provide clear benefits for the focus country, as well as the benefits seen within New Zealand.

6.8 Limitations

In addition to the limitations identified in the chapter on the evaluation method, a number of other limitations emerged during the course of the study. The student attitude assessments, which had already been identified as a possible weak point due to the difficulty of assessing attitudes, were further compromised because of the misunderstanding with the focus teachers. This misunderstanding meant that the data for both classes were incomplete, making direct comparison of pre-programme and post-programme attitudes impossible for one class, and limited for the other. Fortunately, the student feedback forms and the interviews and feedback forms from teachers all gave some information on student attitude change.

The assessment of student cognitive learning was also affected by misunderstandings, with one teacher using a self-made test that was not part of the programme design. This problem was exacerbated because the researcher was not able to examine the test, so that its validity is not known. Student learning data from this classroom is therefore difficult to interpret.

The variability of programme implementation among classrooms could also be seen as a limitation. The variability of implementation meant that the programme as perceived by both teachers and students was only part of the total programme that had been designed, and was often mixed with activities and resources from other sources. Thus some comments made by students referred to activities (e.g. note copying) that were not part of

the programme. However, this variability was also a key study observation, showing the flexibility of the programme and its dependence on the quality of teacher practice.

In summary, this chapter has discussed the results obtained during the evaluation of the *Ethiopia Connection*, organized around the research questions from Chapter Two. An examination of teachers' expectations of the programme confirmed the seven pillars of the programme theory derived from the literature review and added a further two keys to programme success. The observations of programme use demonstrated its flexibility for different age groups, learning objectives and teaching styles. The evidence for student learning and attitude change was mixed, but there were indications that both had occurred. Lastly, both students and teachers found the programme enjoyable and interesting, while there were significant gains for World Vision, both in increased fundraising and in less tangible benefits in New Zealand and within Ethiopia. In Chapter Seven, the Ethiopia Connection will be evaluated against the programme theory outlined here, leading to recommendations for future World Vision internet programmes, for other internet-based learning, and for future research.

Chapter Seven: Conclusion

This chapter outlines the main conclusions from the evaluation of the *Ethiopia Connection*. First, it examines the programme and its outcomes against the programme theory developed in Chapter Two and expanded in Chapter Six (see Figure 6.2). This theory was based on the education literature and on teachers' expressed desires for the programme. Having evaluated the programme against this programme theory, the second part of this chapter proposes a number of recommendations for future World Vision internet connections, for other internet-based social studies programmes and for future research.

7.1 Evaluation of the Ethiopia Connection

From the observations of programme use, and from the analysis of teacher, student and Ethiopian staff perceptions, it is clear that the *Ethiopia Connection* fulfilled the requirements of an effective internet-based learning programme, as defined in the programme theory outlined in Chapter Six. The programme was highly interactive, with such aspects as the questions, discussions, messages and audioconferences all giving students an opportunity to make a visible contribution to their own and others' learning. These aspects emphasised the authenticity of the unit, reminding students constantly that they were studying real people and situations, while also giving students access to experts such as the travelling teacher, World Vision Ethiopia staff, and the family themselves. These interactive elements are expensive in both time and money. However, they were included in the internet connections because their importance was predicted by the programme theory. The high value that teachers and students placed on the level of interactivity in the programme, confirms the importance of these programme aspects and justifies their continued inclusion.

The range of related resources, such as the video, poster, unit and folder encouraged teachers to integrate many different learning media, and to support online learning with other classroom activities. While few teachers used all the available resources, the poster

and unit were available to all participants and were widely used. Even the video and folder, which teachers had to make an effort to obtain, were highly valued by those who used them for their quality, depth and ease of use. Like the interactive elements of the programme, these resources are expensive and time-consuming to produce, but the enthusiasm shown, especially for the video, justifies the investment. The hands-on, higher-level activities provided on the website, in the unit and in the folder promoted student choice and active, collaborative learning. Again, the frequent comments from teachers praising the quality of activities shows their value in making the programme more effective, and in maximising student interest.

Thus, the *Ethiopia Connection* incorporated all eight pillars of the programme theory – website interactivity, active learning, choice, collaboration among students, access to experts, integration, authenticity and ease of use. Moreover, teachers and students perceived all these characteristics of the programme as being important to its success, thus confirming the validity of the programme theory. The remaining aspect of the programme theory against which the *Ethiopia Connection* was evaluated was the goal of developing understanding and compassion among students towards people in the developing world.

As was seen in Chapter Two, there are a number of influences on student learning and attitude change that cannot be controlled by a programme like the *Ethiopia Connection*. For example, internet sites and related resources have no effect on the extent to which teachers consciously teach learning strategies and metacognition, yet this is known to increase learning (Bereiter & Scardamalia, 1989; Paris & Winograd, 1990). Similarly, students' attributions have a significant effect on their learning (Paris & Turner, 1994), but again these are outside the control of an external programme. Thus, any effect of the *Ethiopia Connection* on student learning or attitudes may have been partially masked by the different learning environments created by the individual classroom teachers. Even so, there were indications from students' and teachers' reports, and from the increase in fundraising for the 20 and 40 Hour Famine, that students did increase their understanding of the developing world as a result of their participation in the *Ethiopia Connection*, and that they showed greater compassion for those in need.

7.2 Recommendations

As a result of this evaluation, a number of recommendations can be made. Some of these relate specifically to things that should be retained, increased or changed in future World Vision internet connections, in order to maximise their effectiveness. Other recommendations are more general, and point to learnings relevant to any internet-based social studies programme. A third group of recommendations relate to possible directions for future research arising from this evaluation.

Several aspects of the *Ethiopia Connection* contributed significantly to its success, and so should be retained in future programmes. Firstly, it is important to retain the interactive sections of the website – the questions, messages and discussions – because they allow students to be involved in their learning, and to have direct contact with some of the people they are learning about. Secondly, a range of related materials should continue to be available to schools. Among these, the video is the most valuable, but the visual nature of the poster, the depth of the unit and folder and the quality of activities also make a significant contribution to the success of the programme. A CD-Rom version of the folder would also be helpful, but the folder should continue to be available for those teachers who still feel uncomfortable with computer-based resources. Thirdly, the opportunity for students to take practical action on the issue they are learning about is important, not only for World Vision's need to raise funds and to encourage compassion, but also for the students' learning (Leask & Younie, 2001). Students are more interested in topics that are directly relevant to them, and feel involved and empowered when they are able to make a real difference to a problem. Both these factors are likely to enhance their learning.

The programme could be further improved by increasing, decreasing or changing certain programme aspects. The online puzzles were very popular with both students and teachers. Ideally, more extensive online games and puzzles should be developed as an additional form of interactivity, and a further source of active learning. The audioconferences are a valuable aspect of the programme, but to date they have been hampered by technical

difficulties. More effort needs to be made to reduce the length of the audioconferences, to obtain clear telephone lines, and to choose a travelling teacher with a loud, clear speaking voice. With the range of age groups involved in the Ethiopia Connection, it is important to provide some stories, faxes and website sections whose language levels are suitable for younger students. Therefore, the travelling teacher should be selected and trained for the ability to write for young children, and the website should be redesigned to include more visual elements, and more pages that appeal to younger students. Eventually, the possibility of splitting the website into separate sections for different age groups should be explored. Attention should also be paid to promoting the programme more effectively, especially in the lower North Island, where participation is still low.

Looking at internet-based learning programmes more generally, this evaluation has emphasised the importance of a number of factors. The most important of these are listed in the programme theory, and have been confirmed by this research. Designers of internet-based social studies programmes should, therefore, ensure that they provide a range of highly interactive elements, especially those that give students access to experts in the field they are studying and that encourage authentic, active learning, choice and collaboration. Designers need also to integrate a number of related resources for depth of learning, and provide a website and teacher resources that are easy to use.

Even with all of these essential factors, the success of an internet-based programme depends on two further issues that are outside the control of programme designers. Firstly, to use such programmes effectively, teachers need adequate access to the internet, either through a computer room that is frequently available to the class, or through the presence of several online computers within the classroom. This need presents a resourcing issue that schools will need to address as these programmes become more widely used. Secondly, no matter how many authentic, active, student-centred activities are provided by programme designers, these are of no use if the classroom teacher chooses not to use them, or fails to provide the learning environment, level of supervision or encouragement for students to engage effectively in these activities. Thus, the skill of the classroom teacher is as essential in a successful internet-based programme as it is in any other educational context. This

finding is consistent with other research relating to the use of information and communications technologies in education (DeCorte, 1990; Dexter, Anderson & Becker, 1999; Rushby, 1984).

The present study points to a number of possible research directions that could identify further improvements to World Vision programmes or provide greater insight into the value of internet-based education. In shaping future World Vision internet connections, it would be useful to know whether an alternative focus, such as an interactive game or a family in the focus country might be as effective as a travelling teacher, and might avoid the costs and risks of sending a volunteer to a developing country. Teachers' opinions could be specifically sought on this question. If this proved positive, a pilot programme that included one or more of the possible alternatives could be run, and its success compared with that of the *Ethiopia Connection*.

While this study attempted to assess cognitive and affective change as a result of the programme, the data was limited, and there was no attempt to look at long-term learning. If students who had been involved in previous internet connections could be located, it should be possible to evaluate any long-term effects on student understanding and on attitudes towards the developing world. By comparing the attitudes and understanding of students who had been involved in several World Vision internet programmes with a group who had participated in only one such experience, and a group who had not been involved with any of the programmes, it may also be possible to learn whether long-term change can be achieved through only one unit, or whether it depends on repeated exposure to similar ideas. Investigating the long-term effects of programmes like the *Ethiopia Connection* is important, since changes in understandings and attitudes are only truly useful if they are transferred to new situations and persist into later life (Perkins, 1992).

The increasing popularity of virtual field trips and other internet-based education programmes makes it essential that these programmes should be thoroughly understood and evaluated. This study has gone some way towards documenting the process and impact of one such programme. It has identified a number of features that programme designers

should include in order to increase the likelihood of effective learning from internet-based programmes. The study has also identified a continuing need for increased access to the internet in classrooms, and increased teacher training and support in the effective use of computer-based technologies in learning. The internet has the potential to support authentic, deep, engaging learning. As Leask and Younie (2001) have said,

> "With the Internet we find a new kind of learning leading to communal knowledge building, where students discover new things as they exchange experiences on-line with students from different countries and collaboratively build, record and publish their learning."

In order to unleash this potential, programme designers need to create programmes that give students the interesting, authentic, interactive, cooperative, active, integrated learning experiences that the medium allows, and teachers need the access to technology and the understanding of pedagogy to enable them to make the most of the programmes that are becoming increasingly available.

Appendix I

Ethiopia Connection Teacher Unit

Ethiopia Connection

Teacher Unit

KEEP THIS – PASSWORDS ENCLOSED

Thank you for registering for the Ethiopia Connection. I hope it will be a rewarding experience, both for you and for your students.

The programme will run for four weeks in March 2001 and will feature World Vision's work bringing food security to a community in Ethiopia. Through the programme, children will hear from New Zealand teacher Sharon Crosbie as she travels in Ethiopia, visiting families and observing World Vision's work there. They will learn about daily life in Ethiopia, and will connect with children and World Vision workers there.

You can follow Sharon's progress on this site, especially in the "Latest News" section. You'll also be able to ask questions, send messages, join in discussions, receive faxes and take part in weekly audioconferences. It promises to be an exciting month!

This unit includes syllabus links and unit outlines for levels 1 to 6 Social Studies; background information on Ethiopia and on the Saatusa area which will be our main focus; and details of how to use the internet site, audioconferences, and other aspects of the programme. If you have questions or needs which are not answered here, please contact me, and I will do everything I can to help.

Best wishes for a fun, challenging, involving unit,

Susan Warren,
Education and Advocacy,
World Vision New Zealand.

Contents:

Contact Summary

1. To use the site:

http://www.worldvision.org.nz
⇨ "Explore the Issues" section
⇨ "Connections"
⇨ "2001 The Ethiopia Connection"

2. For questions or comments about the programme:

Mail	Susan Warren, World Vision New Zealand, Private Bag 92078, Auckland.
Fax	[redacted]
E-mail	[redacted]
Phone	[redacted]

3. For questions about Ethiopia:

Use the question page in the "Ask Sharon" section of the internet site.

Password: nohunger

4. For messages to the Ethiopian children:

Use the "Get in Touch" page in the "Talk about it" section of the internet site.

Password: together

5. To join in the discussions:

Use the "Discuss the Issues" page in the "Talk about it" section of the internet site.

Password: justice

6. To access the audioconferences (non-speaking schools):

Dial:	[redacted]
PIN:	[redacted]

Note: speaking schools will receive a different PIN number one to two days before the audioconference.
If you have trouble connecting to the conference, call the Telecom audioconferencing section on [redacted] for assistance.

The Programme
Fax Schedule

Each week on Tuesdays we will send a fax to registered schools. This fax will include a message from Sharon, plus the questions chosen for that Thursday's audioconference. Since fax rates are cheaper overnight, **please ensure your fax machine is turned on after school on the Mondays**, and that it has enough paper for a three-page fax.
The faxes are scheduled to arrive on:
Tuesday March 6th
Tuesday March 13th
Tuesday March 20th
Tuesday March 27th

Audioconferences

One of the most exciting parts of the programme will be the audioconferences, which will run on Thursdays at 2-00pm.

For each audioconference, eight speaking schools will be able to submit questions, and then select one student to ask a question live by telephone. All registered schools can listen to the call by dialling the audioconference line. Before each week's call, we will send you a list of that week's audioconference questions. You may wish to give the list to students, with spaces for them to note down the answers.

The calls, which are national (within New Zealand) toll calls, last about 20 minutes, and you will need a speaker phone so all class members can hear. If you would like your school to be a speaking school for one of the audioconferences, and have not already sent in the audioconference response form, please post or e-mail your request by February 9th to [redacted]

Audioconferences will be at 2-00pm on:
Thursday March 8th
Thursday March 15th
Thursday March 22nd
Thursday March 29th

Each audioconference will be re-played the following day (Fridays 9th, 16th, 23rd and 30th) at: 9-30am 11-30am and 2pm.

To dial in to the audioconference:
Dial [redacted]
Wait for the voice to ask for your PIN number
Enter the PIN [redacted]
There will be a short delay and then a beep to let you know you are connected to the conference. If you are a little early you may hear music or silence, or possibly Susan and Sharon chatting before the conference begins. We will start the questions on the hour, so please try to be connected in plenty of time.

If you have trouble connecting to the conference, call the Telecom audioconferencing section on [redacted] for assistance.

Using the web site

The World Vision New Zealand web site address is: http://www.worldvision.org.nz.

Once at the site, go to "Explore the Issues" (using the top menu), then "Connections (on the side menu), and choose "2001 The Ethiopia Connection" on that page. Once there, you can navigate around the Ethiopia Connection site using the menus.

Asking questions

To ask questions about Ethiopia, the Saatusa community, hunger, World Vision's work, or any other topic for the Sharon or the World Vision team to answer, use the question form on the internet site. This is in **"Ask Sharon"** and is labelled **"Question Page"**. Students (or teachers) fill in their name, school and the question they want to ask. They should also click the box to show which category their question best fits in (for example, Ethiopia, the Saatusa community, hunger or World Vision's work). To submit, fill in the **password (nohunger)**, which must be in lower case letters, and **click "submit"**.

When Sharon has answered the question (probably in two or three days), both the question and its answer will appear on the site. We will put some selected questions on the answer page so everyone can enjoy reading the best questions and their answers. If a student's question isn't there, you can find the question and its answer using "Search" on the answer page, typing in the student's name or the name of your school (as you typed it when you sent your question). You can also search for all questions on a particular topic, using a key word search.

Sending Messages

To send a message to an Ethiopian child, use the **"Get in Touch"** page in the **"Talk About It"** section. Fill in the form as above and use the **password (together).** Your message will appear soon after, but the answer may take a week or more to allow for travel to and from the community, translations etc.

Please ask your students to show sensitivity when sending messages to the children. They will have very little experience of the outside world, and so may find it difficult to relate to some topics, eg TV programmes.

You will need to be patient in using this part of the site. The children may have very little education, and so may struggle with the concept of sending messages to people in another country. Also, the messages are translated by an interpreter, who can only visit the families periodically, so replies, if the children feel able to give them at all, are likely to take some time.

We hope to also set up communication with children in some Ethiopian schools. If this proves possible, you will be able to send them messages in the same part of the site – i.e. "Get in Touch". These students will be in a better position to communicate with New Zealand children, but some sensitivity will still be necessary.

Taking Part in Discussions

To join in with the discussions on issues related to hunger and food security, or in the "getting to know you" discussions among children from different places, go to the "**Discuss the Issues**" page in the "**Talk About It**" section. Use the forms to either add a comment to someone else's message, or start a new topic, with the password **justice**.

We hope that this part of the site will form a group problem-solving process, with children from all parts of New Zealand, plus possibly young people from Australia, Canada, and/or an urban Ethiopian school, contributing their ideas on how the world should solve its food security problems.

Sending Teaching Ideas or Children's Work

We would like to have photos and descriptions of interesting activities classes have done during this unit, so we can post these on the site for everyone to benefit from. Please send your (brief) story, with digital photos, to:
susan.warren@worldvision.org.nz
Your story and photo will be most useful if we have it early in the programme, to give others time to use your ideas before the unit ends.

We would also like to put some of the best children's work (stories, poems, paintings, essays, photos of displays etc) onto the site. If you would like some of your students' work considered for this, please choose two or three best efforts and e-mail them to the above address. This is a great way to motivate children, and to show what our New Zealand children can do, for all the world (potentially) to see.

Resources

With this unit, you will receive one free copy of the poster "From Hunger to Harvest" for every class you have registered. During February, you should also receive a free copy of the video "Food for Tomorrow" when your local 40 Hour Famine representative visits your school. You do not need to register for the Famine to receive the video.

To complement these resources, you may wish to purchase the folder, "Food for Tomorrow", which includes an extra copy of the above poster and video, plus extensive resources, teacher notes and activities. Covering levels two to six, it meets objectives primarily in Place and Environment; Resources and Economic Activities; and Social Organisation. It could also be used alongside other materials for Form 6 Geography and Economics topics on Inequality.

You can order the set from any educational bookseller in New Zealand. It is not available outside New Zealand.

Resource kit	**FOOD FOR TOMORROW**	Year 4 - 11
Contains Folder, Video and Poster		$59.95
By Alison Squires and Susan Warren		Available December 2000

* The folder 'Food For Tomorrow' is a flexible, multi-strand, multi-level resource. The range of activities, diagrams, maps, photocopy masters, colour A4 photos, teacher notes and sample units provides all that you need to help students learn about the issues surrounding food security. Explore in depth what daily life is like for the Ayele family in Ethiopia, as well as the development work happening in their area. Find out more about the other case studies on the video and examine the wider global issues such as disasters, poverty, the environment and economics.
* The video 'Food For Tomorrow' is in two parts. Students first meet the Ayele family in Ethiopia and see how developments in their community are helping them to face the current drought. With strong environmental and agricultural themes, we follow the daily activities of the family as they support themselves and work towards having enough food for tomorrow. The second part of the video looks at other situations around the globe where food is scarce. With two short case studies in South America and Asia, students are led to think about some of the larger issues. (Approximately 30 minutes, produced by Trailblazer Pictures, 2000)
* The poster 'From Hunger to Harvest' includes 12 colour photos around the theme of food security in Ethiopia, with additional activities and quotes.

Other resources on Ethiopia:

Books:	'Ethiopia: Breaking New Ground' By Ben Parker (1995)	An Oxfam Country Profile ISBN 0 85598 270 5
National Geographic:	Eritrea Wins the Peace	June 1996 Vol 189 No 6
	Tragedy Stalks the Horn of Africa	August 1993 Vol 184 No 2
	Blue Nile	Dec 2000 Vol 198 No 6
School journal:	'Only cows have calves' Play for eight characters	1992 Part 2 Number 2 pgs 37 - 42

World Vision Video Loans:

The Valley 55 minutes (1991)
Blind 90-year-old Baba Damtew, of the Omo Valley, Ethiopia, recalls the dreadful years of the 1984 famine and how his community, with World Vision assistance, reversed the trend of environmental destruction and poverty. Produced by Katherine and Roger Scholes with the Australian Broadcasting Corporation.

Christmas in Ethiopia 13 minutes (1990)
Shows the lives of villagers and a refugee family in Ethiopia on Christmas day and looks at one community which, thanks to development work since the 1984 famine, was still thriving in spite of the 1990 famine.

Cambodia Resources

Book:	'Cambodia' By Ian Brown (2000)	An Oxfam Country Profile ISBN 0 85598 430 9

Honduras Resources

National Geographic:	After the Deluge	Nov 1999 Vol 196 No 5

National Library

The National Library of New Zealand has a good range of relevant resources on Ethiopia. New resources are constantly coming in, so it is best to contact them yourself with a specific request.

Teacher Guide

Ideas for using Internet programmes

Here are some ideas to help you and your students make the most of this programme in your classroom.

- Integrate internet-based resources with other materials and classroom activities, making the most of the free video and poster, hands-on experiences like cooking food or carrying water, and visiting speakers where available so students learn the same concepts in many different ways.
- Capitalise on the communication potential of the Internet by encouraging students to send questions, contribute to discussions and "vote" on issues. These aspects may take time and organisation, but they bring the programme to life for the students, and add purpose to their studies.
- Give students a clear purpose for their exploration. For example:
  1. Use a focus question (eg "What should be done, and by whom, to provide all people in the world with the food they need?" or "If you were an aid worker helping a community in Ethiopia, what would be your top five priorities?" or "Of all the factors which make it hard for people to get the food they need, which do you think has the most impact?").
  2. Work in groups, Jigsaw-style, with each student researching a different aspect of the topic.
  3. Build up a class display with each child contributing a labelled picture on a different aspect of life for the people being studied.
  4. Give students a "treasure hunt" list with items which require some processing of the information on the site (eg find the saddest story, a picture showing hope, three facts you could use in a fundraising brochure, two aspects of life which are similar to yours etc).
- Make the most of interactivity by allowing students to work on these goals in their own way, for example by choosing the order in which they explore and by finding information themselves.
- Work in small groups when using the internet so that students can discuss their choices and justify them to each other, thus deepening their learning.
- Make the programme even more real by linking it with the 40 Hour Famine, so students can do something practical to help the people they are learning about.

Making the most of your computer access

- If you have access to the internet from multiple computers eg a computer lab, you are unusually fortunate. You will probably find it best to have students work in pairs or small groups to research answers to questions, use the communication sections of the site, or prepare a power point presentation.
- If you have one computer with internet access, roster pairs or small groups while the rest of the class do other activities.
- If you have a classroom computer but no access to the internet, download the site (or parts of it) onto a disc and put it on the computer to use as above.
- If you have no classroom computer, print out relevant pages at home and use these alongside the other parts of the programme. For questions and discussion messages, you could have students write their questions, then either fax them, or type them on at home.
- Whatever your access, make good use of the audioconferences, fax messages, printed resources, video and unit activities.

Syllabus Links

Note: The internet site and related materials are designed for students aged 8 to 16, but some schools have registered children as young as five, so we have included objectives for levels 1 to 6.

	Social Organisation	Culture and Heritage	Place and Environment	Resources and Economic Activities
Level 1		Features of the culture and heritage of their own and other groups		Different resources that people use
Level 2		Ways in which communities reflect the cultures and heritages of their people	How people's activities influence places and the environment and are influenced by them	How and why people work together to obtain resources
Level 3		How practices of cultural groups vary but reflect similar purposes	How different groups view and use places and the environment	How and why people manage resources
Level 4	How people organise themselves in response to challenge and crisis		How places reflect past interactions of people with the environment	How and why people view and use resources differently and the consequences of this
Level 5	How and why people seek to gain and maintain social justice and human rights			Factors that influence people's access to resources goods and services
Level 6			The implications of changes to places, for people and for the environment	How and why individuals and groups make decisions about the use of resources, goods and services

Suggested Activities – Levels 1 – 2

Introductory Activities (choose one or more)

1. Sort photos:

Cut out the photos on the poster. Take turns to sort the photos into groups and say why you made your selection.

2. Sensescape

Banana palm leaf	Empty plastic bowl
Small china cup with no handle	Maize or corn cob or kernels
Coffee beans	Flour in a bowl
Plastic water container (jerry can)	Mortar and pestle

Display these or other similar items on a special table for students to look, touch and smell them. Discuss their impressions of these items and why they are grouped together. These items are significant to a group of people – what can you guess about these people and their lives?

3. Photo Matching

Cut out or colour photocopy the photos on the "From Hunger to Harvest" poster. Copy and cut out the short captions on the back of the poster. Give each child either a photo or a caption (you may need to do more than one copy of the captions). Students move around to find the caption for their photo. In the groups of two or three thus formed, students look carefully at their photo, and write down what it shows them about the people in the photo. Each group then shows their photo to the class, and reads out their observations. On the board, build up a composite list of information the children have gleaned from the photos. Where do students think these photos were taken? What kind of people do they think they are about?

Learning Activities (choose a selection)

4. Framing an inquiry

As a class, write the focusing question for your unit in the centre of a piece of paper:
Culture and Heritage: What is everyday life like for people in Ethiopia?
Place and Environment: How does the environment in Ethiopia affect people's life?
Resources and Economic Activities: How do people in Ethiopia work together to get the things they need?
Underline the key words. For each key word, think of a question, or several questions, which could help you find out about that aspect of the unit. Lastly, look at the focusing question as a whole and try to think of more questions which could help you learn enough to answer the focusing question. As you go through the unit, come back to these questions and see how many you can now answer.

5. Map search:

Locate Africa on world map or globe, then locate Ethiopia. Enlarge the map, blank out country names and make name tags for each country. Students blue tack these onto the map, using an atlas if needed.

6. Video:

View the first section of the video "Food for Tomorrow" which describes Abaynesh's family and their life. Instruct students to look for (as appropriate):

A. How the family share their work
B. What resources they use
C. How their life is affected by where they live

D. Something special about how they eat, how they organise their day, their houses, what they do in their free time.

7. Sort quotes:
Enlarge, copy and cut out one set per group of the quotes on the back of the poster "From Hunger to Harvest". Read all the quotes and sort them into groups. Explain your groupings. Sort them in at least one other way. Give examples from the quotes of ways the environment can make life hard for people. Give examples of ways people have changed the environment to try to make their lives better.

8. Irrigation:
Use a sandpit or bare patch of garden to make rows of irrigation channels. Use a hose or bucket of water to slowly pour water into the main channel. Experiment with different designs to find the best way to move water from a river/reservoir to your crops.

9. Visit:
Visit a local nursery, public garden, or other user of irrigation for crops or plants to find out how and why they use irrigation.

10. Event line:
Build an event line in the shape of a large twisting road or river. Enlarge and cut up the boxes (minus the graphics) in the Hunger diagram on the back of the "From Hunger to Harvest" poster, giving one box per group. Groups select a graphic for their box or illustrate it themselves. Groups attach their boxes to the road in turn to show the progression of events. (They may need to negotiate the placement of the boxes.) Do a second road to illustrate the Harvest diagram.
Variation 1 (for older students): Build one road or river that forks into two and blend both Hunger and Harvest diagrams together onto this, leaving out the second copy of the first 4 boxes.
Variation 2 (for younger students): Prepare the road/river display as above and place the boxes on it in the correct sequence. Students match or draw a picture for each of the boxes and add these to the display.
Use the completed display to discuss (according to objective):

a. How do tree-planting, irrigation and terracing help people to get more from their land?
b. Why do communities work together to plant trees, irrigate their fields or terrace hillsides?

11. Identify Resources
Give each group a different photo from the poster, with its long caption. On separate pieces of paper, draw and label each resource you can see. (For example clothes, house, land, plough, fire, pot, water container, firewood, trees, soil, people to help.) As a class, sort any similar resources into piles and label tins or containers with titles of each main resource. (For example food/crops, tools/utensils, environment, human.) Students 'post' the slips of paper into the appropriate containers.

12. Family roles
List the names and ages of the people in your house and the chores they each do. How do our families choose who does each chore? What happens if someone doesn't help? Look at the website, especially in the Daily Life section, to find out what chores

children and adults in Saatusa have to do. What might happen to the family if someone didn't help?

13. Experiencing Ethiopia

Hold an "Ethiopia Day" and do some of the following:

- Students carry water, ideally in jerry cans tied to their backs (you can turn this into a race, teamwork exercise, or just an experience to describe later).
- Students collect firewood (sticks etc previously scattered around the playground).
- Teachers or parents light a fire, and help students to cook some simple Ethiopian food on it for everyone to share (see the recipes in this unit, or on the site).
- If a fire is impossible, cook the Ethiopian food inside and share it.
- Share "coffee" – using small paper cups and hot chocolate, coke or some other substitute drink, role play inviting neighbours, rinsing cups with the first portion, pouring and sharing the drink.
- As a class, build a model of an Ethiopian house – either a round gattaketta, or a square iron-roofed house, or both if possible.
- Try playing mancha and bulle (see instructions in this unit, or on the site)
- Grow quick-growing vegetables (eg lettuces or radishes) in the school garden. Over several weeks, students organise themselves to prepare the ground, keep it weeded, water the plants, watch them grow and later share the results. (Begin this activity as early as possible – preferably the start of the term).

At the end of the experiences, students write a list of words and phrases that describe their Ethiopian experience, and another list to describe what they think these same activities would be like for a real Ethiopian child family.

12. Postcard

Look at the information on houses on the website (in the Daily Life section). Make a postcard and draw a picture of your home on the front. On the back, write a letter to Abaynesh's family telling them about the similarities and differences between your home and theirs.

<u>Assessment Activities (choose the one which fits your learning objective)</u>

13. Most interesting

Draw a star diagram to summarise the main things you have learnt about which are special or different about Ethiopian culture. Circle the one that seems most important or interesting to you. Draw a picture and label it to show what you learned about this thing, and write a sentence saying why you thought it was especially interesting.

<u>Variation:</u> Draw two pictures, one of this aspect of Ethiopian culture, the other of the same aspect of New Zealand culture. Label the similarities and differences.

14. Model tasks

Using pipe cleaners or plasticine, make models of the members of an Ethiopian family in and around their house. Put each model in a pose to show them doing one of their tasks. Attach a speech bubble to each person saying "It's important to me to help my family because..." with their reasons.

<u>Variation:</u> Label each person with a list of resources they have to use to do their task.

15. Rain v. Irrigation:

In small groups, imagine you are farmers in Ethiopia. Use the photos to help you complete two PMI charts (plus, minus, interesting) for Rain and for Irrigation. Tell (in writing or role play) another group of farmers which method(s) you will choose for watering your crops, how each would affect your life, and give your best reasons.

Suggested Activities – Levels 3 - 4

Introductory Activities (choose one)

1. Hunger & Food

Recall a time when you felt really hungry. Describe the situation and describe what you wanted to eat and why. How did you feel? Imagine if you had not been able to get food for a long time after that – perhaps several days. How do you think you would have felt?

2. Poster

Cover the poster title and focus questions and brainstorm short titles that might explain what this group of photos is about. Reveal the title and discuss impressions. Cut out or colour-copy one set of photos. Sort them into groups and write a title for each group.

3. Listen and Match

Read aloud each long caption, out of sequence, with students choosing and recording the number of the photo that best fits that description.

4. Video

View the first section of the video "Food for Tomorrow" which describes Abaynesh's family and their life. Instruct students to look for (as appropriate):
How people depend on the land.
Ways people have changed the land, both in the past, and more recently – what effect has each change had on people's lives?
Resources that people use in the production of food.
Something special about how they eat, how they organise their day, their houses, what they do in their free time. How are these similar or different to they way people do those things where you live?
How people are meeting the challenge of feeding their families in a land that is prone to drought.

Learning Activities (choose a selection)

5. Here's the Problem:

At the centre of a classroom display, write the question: "How can people in Ethiopia make sure they can get the food they need, even in dry years?". Divide the rest of the display into areas – "Problems from not having enough food", "Things that make it hard to get food", "Ideas for action", "Our choice and why". During the unit, work through the problem-solving process and add each part to the display.

6. Match quotes:

For each quote, choose one or more photos that illustrate it in some way and record the photo numbers. Say why you think the photo matches.

7. Show and tell:

Discuss and decide on the main theme for each quote from those listed below for your level. In groups, illustrate a different quote using a tableau. First work out what each person in your group will portray, then practise each person's position and pose. Put this together into a picture, working out where each person is placed. As each group presents their tableau, one person reads their quote aloud.
Variation: Present each tableau silently, and work out which quote they have.
L3 A, C, D, E, F, G, H, I L4 A, C, D, E, F, G, H, I, J

8. Country Facts:
Each student chooses one fact that compares Ethiopia with NZ (from the Website or the back of the poster) and designs an interesting way to show this information. (Check no facts are left out.) Looking at all the facts together, what might this information mean for the people living in each country?

9. Comparing Lives
Each student chooses one aspect of life in Ethiopia and researches it using the website, poster photos and video. Draw two pictures – one showing this aspect of life in Ethiopia, the other showing the same aspect in New Zealand. Label at least two similarities and three differences. Share these with the class to build up a list of similarities and differences across different aspects. You could choose the best set of pictures and send them to World Vision New Zealand to put on the website.

10. Managing resources
In a group of three, use the information in the poster photos and on the website to make a list of resources families in Ethiopia need and use. Choose a different resource for each of the following categories and make a play dough model of each one.
(i) a resource that's important for every day,
(ii) a resource that they can use many times,
(iii) a resource that's important but only needed sometimes.
Label your models and display them in these same categories. For any resources in more than one category, groups explain their selection.

11. Experiencing Ethiopia
Hold an "Ethiopia Day" and do some of the following:
- Students carry water, ideally in jerry cans tied to their backs (you can turn this into a race, teamwork exercise, or just an experience to describe later).
- Students collect firewood (sticks etc previously scattered around the playground).
- Teachers or parents light a fire, and help students to cook some simple Ethiopian food on it for everyone to share (see the recipes in this unit, or on the site).
- If a fire is impossible, cook the Ethiopian food inside and share it.
- Share "coffee" – using small paper cups and hot chocolate, coke or some other substitute drink, role play inviting neighbours, rinsing cups with the first portion, pouring and sharing the drink.
- As a class, build a model of an Ethiopian house – either a round gattaketta, or a square iron-roofed house, or both if possible.
- Try playing mancha and bulle (see instructions in this unit, or on the site)
- Grow quick-growing vegetables (eg lettuces or radishes) in the school garden. Over several weeks, students organise themselves to prepare the ground, keep it weeded, water the plants, watch them grow and later share the results. (Begin this activity as early as possible – preferably the start of the term).

At the end of the experiences, students write similarities and differences between life in Ethiopia and life in New Zealand. Build these up onto a group or class Venn diagram.

12. Identify causes
Use what you have learned so far to make a mind map to show all the things that make it hard for people in Ethiopia to get the food they need.

13. Event line:
Build an event line in the shape of a large twisting road or river. Enlarge and cut up the boxes (minus the graphics) in the Hunger diagram on the back of the "From Hunger to Harvest" poster, giving one box per group. Groups select a graphic for their box or illustrate it themselves. Groups attach their boxes to the road in turn to show the progression of events. (They may need to negotiate the placement of the boxes.) Do a second road to illustrate the Harvest diagram.
Variation 1 (for older students): Build one road or river that forks into two and blend both Hunger and Harvest diagrams together onto this, leaving out the second copy of the first 4 boxes.
Variation 2 (for younger students): Prepare the road/river display as above and place the boxes on it in the correct sequence. Students match or draw a picture for each of the boxes and add these to the display.
Use the completed display to discuss (according to objective):
11. How do tree-planting, irrigation and terracing help people to get more from their land?
12. Why do communities work together to plant trees, irrigate their fields or terrace hillsides?

14. Irrigation
Use a sandpit or bare patch of garden to make rows of irrigation channels. Use a hose or bucket of water to slowly pour water into the main channel. Experiment with different designs to find the best way to move water from a river/reservoir to your crops.

15. Poster
Read the Saatusa and World Vision sections of the Internet site. Imagine you are a development worker in Saatusa training people in fishing; growing apples, bananas or other new crops; or training them to build irrigation systems. Make a flyer advertising your training. Include a motivating slogan and illustration and the main benefits of this training.

16. Generate alternative actions
In your group, brainstorm possible actions which the Saatusa community do to make sure they always have enough food. With three votes per person, vote on which ideas you think are best. Count up the votes to find the three most popular choices.

17. Choose and justify an action
Choose the one solution that you think would best solve the problem of food security in Saatusa. Add your choice to the discussion section of the site, with an explanation of why you think it is the best solution.

Assessment Activities (choose the one which fits your learning objective)
18. Celebration:
Imagine you are a community leader in Saatusa. Celebrate a good harvest by writing a song, preparing a speech, or designing a poster or dance. Convey at least 4 reasons why the land is important for your survival. (Or convey at least 4 things your community has done to make it such a good harvest.)

19. Deforestation:
As the Minister of the Environment in Ethiopia, design a 'Stop Deforestation' campaign for farmers. On one A4 page;
- List the main points you want to communicate, including how deforestation affects the environment and agriculture.
- List at least three communication or media channels for your campaign eg. Radio ad, song, drama, poster, speech with visual aids for public meetings, persuading community leaders. (Remember that most rural villages don't have electricity.)
- Choose one activity of your campaign and perform or publish this.

20. Letter
Write a letter to a child in Ethiopia, describing your own life and the ways in which it is similar to, and different from, theirs. Make sure you include information on at least three different aspects of life. Choose the best letters and send them to World Vision for the "Children's Work" section of the site.

Suggested Activities – Levels 5 - 6

Introductory Activities (choose one or more)

1. Word Sort

Enlarge and cut up the following list of words and phrases, with one set per group, introducing them as words that are significant for a specific group of people. Students sort the words and phrases into categories, giving each category a title. They then sort them in at least one other way, giving new titles. What can they tell about the group of people these words describe?

plough	drought	oxen	coffee
neighbours	false banana	erosion	irrigation
food for work	apples	crops	maize
soil	development	debt	deforestation
community	family	seeds	relief
hunger	famine	aid	education

2. Mystery Bag

Coffee beans	Banana
Plastic drink bottle in shape of jerry can	Corn cob or kernels
Sealed container of water	Soil in a sealed plastic bag
Plastic goat or cow	Flour in a sealed plastic bag
Small, handle-less cup	Cutting from a tree or bush

Have several of each item and put each into a "feelie bag" so all students have a bag. Feel the outside of the bag first. Shake the bag and listen. Open the bag but just smell what's in it. Put your hand into the bag and touch the item without looking. Describe it and try to guess what it might be and how it relates to a group of people.

3. Match captions

From the poster "From Hunger to Harvest", copy and cut out the short and long captions, minus their number. Match each short caption with an appropriate photo on the poster. Read the long captions for more information about each photo and reconsider how you matched the short captions.

4. Silent Movie

Set the video to start early in the Ethiopian family section, just after the title, and show it with the sound turned off. Instruct students to look for clues showing:

a. what the video is about b. where it is set

c. what sort of people it is about d. what the video is saying about these people

Play the first two or three minutes then pause for students to share their ideas. Play another few minutes and pause again to share ideas.

Continue until the end of the Ethiopia family section, or stop at this point, then ask for students' conclusions about these questions. Discuss how their ideas changed as the video progressed. Discuss what images affected their ideas.

Show the video again with sound. Students note down key information not contained in the images.

Learning Activities (choose a selection)

5. Issues

Read the information in the Ethiopia section of the Website (especially the fact table, and the page on "People"). Imagine you are a district leader or mayor in a rural area. What do you think are the top three issues facing your people?

6. Video
View the first section of the video "Food for Tomorrow" which describes Abaynesh's family and their life. Instruct students to look for (as appropriate):
Resources and Economic Activities: Factors, both within and outside the community, that make it easier or harder for people to get the food they need
Place and Environment: Evidence indicating changes to the environment, both positive and negative, and the effect these changes have on people's lives
Social Organisation: The different people who are trying to make sure people get the food they need, and their reasons for doing the work they do

7. What question?
Choose ten people to each read one quote from the back of the "From Hunger to Harvest" poster, introducing themselves in character. In ten groups, each take one quote and suggest at least three questions that this person may have been asked for them to give this answer. Select your best question.

8. Identify problems and issues
In a group, use what you have learned so far about the family and community to identify the main problem of food security, as you see it. Express the problem as a question beginning with "How can we...". Once students have their focus question, they research possible answers, gather evidence for and against each one, add other ideas as they come to mind, and eventually build up enough evidence to choose and justify an answer/solution. You may decide to continue to use other activities as part of answering the focus question, or allow students to research the issue themselves using the internet site, question pages, video and if available, other resources on Ethiopia and related topics.

9. Sand tray
In a sand tray or garden build a soil slope and transplant some grass on one side of it. Use a watering can to sprinkle water on both sides of the slope. Watch what happens with and without the grass as well as what the water looks like at the bottom of the slope. Draw a labelled diagram showing what you observed.

10. Video Part Two
L5 Draw a T chart (two column table). As you watch the second part of the video (after the family section – including the Ethiopia, Cambodia and Honduras case studies and the global wrap-up) list 'environmental factors' and 'other factors' that affect people's access to food resources. Compile a group or class T chart from these.
L6 Draw a double T chart (three column table). For each country or situation mentioned in the second part of the video, list any changes to the land, the effects on the lives of farming families and the effects on their environment.

11. Better or Worse
Study the Hunger and Harvest diagrams on the back of the poster. Draw a line graph with the x axis showing +10 through to –10. Starting at zero, chart the ups and downs of each step of the Hunger diagram in one colour. Show whether each step is better (+) or worse (-). With a second colour, chart the Harvest diagram in the same way.

12. Food facts
From the Food and Hunger section of the website, download the file containing the Food Balance Sheet figures (or load the figures into a spreadsheet manually). Sort the data and find the countries with least/most calories per day in each region and overall.

Which region of the world has the biggest range? Pick out countries whose figures surprise you at first glance. Why is this? Think of reasons to explain these calories per day figures. If you wish, you could also sort the figures into categories and mark the countries in each category on a map, to create a visual record of the distribution of food in the world.

13. Identify causes
Use what you have learned so far to make a mind map to show all the factors which make it hard for people to get the food they need.

14. Your cause
Choose the cause of hunger you feel most strongly about. Design a visual statement that conveys this dramatically with a slogan, photo, cartoon etc. Some ideas: Conflict causes hunger... (Piece of bread with bullet holes), Debt causes hunger...(Piece of bread wrapped in a $50 note and hung by a chain).

15. Visions
In your decision-making group, draw a picture or write phrases on a large sheet of paper to show your vision of what the world would look like in 50 years time if the problem of food security was solved. Share your vision with another group, and add to your sheet any extra ideas you think are important. Keep or display all the sheets so you can refer to them later.

16. Generate alternative actions
In your group, brainstorm possible actions which the world could do to solve the problem you have identified. With three votes per person, vote on which ideas you think are best. Count up the votes to find the three most popular choices.

17. Consequences
Draw a three-way mind map to show the probable consequences of each of your three possible solutions. At the centre of a page, write the problem you have identified. Divide the page into three sections, one for each possible solution. In each section, draw a branch from the centre and write the possible solution, then draw branches for the main consequences of that solution. Colour positive consequences in blue, and negative consequences in red.

18. Choose and justify an action
Choose the one solution that you think would best solve the problem of food security in Saatusa. Add your choice to the discussion section of the site, with an explanation of why you think it is the best solution.

<u>Assessment Activities (choose the one which fits your learning objective)</u>
19. Presenting conclusions
Students present their chosen solution (with reasons) as either a written report (as an aid worker, historian or social scientist); speech with overheads (as if to the UN, Ethiopian government or similar); or leaflet (to promote their chosen solution). Send the best efforts to World Vision New Zealand so we can consider putting them onto the site.

20. Time capsule
Imagine you are a member of the Saatusa community. Put together a time capsule to bury so that your grandchildren in 50 years time can learn about how the community

development project changed life in your community. Choose 5 to 10 items that each represent a different way in which the project has helped people to gain access to food resources. Attach a label to each, to explain its significance for food security.

21. TV Ad:
Design a 90 second TV ad for a World Vision Ethiopia appeal that shows how water, deforestation and climate have affected people's access to food resources. Write the script (possibly using part or all of a quote) and split the script into short sections or frames. Choose a photo to illustrate each frame.

22. Decisions for the Future
Identify the five things you think are most important for the world to do now, to ensure food security for all people in 50 years time. In a one-page table, briefly describe each action, why you think it is important and what people or organisations would be responsible for it. Choose one action that someone in authority would need to act on. Draft a one-page letter or e-mail to that person, explaining the action you suggest and why it is important for future food security. Choose another action that you could contribute towards in your own life. Write one page describing exactly what you could do, and how this would contribute to food security.

Background Information

Ethiopia

Statistics

	Ethiopia	New Zealand
Population (1999)	62.8 million	3.8 million
Capital city (population)	Addis Ababa (around 3 million)	Wellington (346,700)
Area	1,127,127 square kilometres	268,680 square kilometres
Official languages	Amharic (over 80 local languages)	English, Maori
Religion	Christian, Muslim, Animist, Other	Christian, No religion, Other
People groups	Oromo, Amhara/Tigrean, Sidamo, Shankella, Somali, Afar, Gurage, Other	European/Pakeha, Maori, Pacific Islands, Other
Currency	Birr	New Zealand dollar ($)
Deforestation (1990 – 1995)	624 sq km per year Lose .5% of forests per year	–434 sq km per year Gain .6% of forests per year
Land suitable for crops (1995 - 1997)	0.17 hectares per person	0.42 hectares per person
Life expectancy at birth (1998)	43 years	77 years
Under 5 mortality (1998)	173 deaths per 1000	7 per 1000
Under 5 malnutrition (1998)	48 %	No figures available
People with access to clean water (1990 – 1998)	25 %	97 %
Average daily calories (1998)	1805 per person	3315 per person
Starting primary school (1997)	35 % of children	100 % of children
Starting secondary school (1997)	25 % of children	93 % of children
People aged 15 and older who can read (1995)	33 % of adults	Probably 99 % of adults Figures not available

Map

Geography

Ethiopia is located in East Africa, bordering Sudan, Kenya, Somalia, Djibouti and Eritrea. In 1993, when Eritrea became a separate country, Ethiopia lost its coastline and became landlocked. Ethiopia's landscape includes rugged highlands, dense forests and hot lowland plains. The highlands cover about 40 per cent of land area. Mount Dashen is the highest point at 4620 metres.

Ethiopia's river system begins in the highlands where Lake Tana, the country's largest lake, is located. The rivers carry water and fertile soil to neighbouring countries. More than 80 per cent of the water in the Nile River comes from the Ethiopia highlands.

Broad-leafed forests cover about 20 per cent of the country and another 34 per cent is more open woodland savannah. The remainder is grassland and semi-desert. Many regions, which were once rich in vegetation are now rocky, desert areas due to increasing erosion and desertification in the 20th century.

Historically Ethiopia had abundant wildlife. Baboons, wild pigs and porcupines are plentiful in the highlands. The country has the largest livestock population of cattle, sheep and goats in the entire Africa region.

Ethiopia has a long history of agricultural productivity probably because of its fertile volcanic soils. Main food crops include teff (a local grain), wheat, maize, barley, sorghum and pulses such as beans and chickpeas.

Climate

Ethiopia's climate is determined by elevation. The hottest areas are along the borders; the coolest are in the central highlands where hail, frost, and even snow are common. The coldest temperatures are usually in December or January and the hottest are in March, April or May. Some places are coldest during July because the rain lowers the temperature. Annual rainfall varies from 800 – 1200mm in the highlands to 400mm or less in lowland areas. Droughts have become more frequent in the last 20 years.

There are three main seasons in Ethiopia. September to February is the long dry season, known as *bega*. March and April is the short rainy season, known as *belg*. May is a hot dry month followed by the long rainy season in June to August, known as *kremt*.

People

On average there are 63 people per square kilometre of land in Ethiopia. However two thirds of the population live in the highland areas making it more crowded there. Only about 17 per cent of people live in urban areas.

While the official language in Ethiopia is Amharic, over 80 local languages are spoken in different areas of the country. The four main types of language are Semitic, Cushitic, Omotic and Nilotic.

Approximately 40 per cent of people are Ethiopian Orthodox Christians, about 40 per cent are Muslims, and around 20 per cent are Protestant Christians, Roman Catholics or belong to local religions.

However, in individual regions the proportions vary. In the north-west nearly 90 per cent are Ethiopian Orthodox Christian. Most Muslims live in the east of the country. In southern areas, people are more likely to be Protestant Christians, Roman Catholic or have local religions.

Education has been free at primary and secondary level since 1952 but only 35 per cent of children attend primary school and 25 per cent attend secondary school. There aren't enough schools and many families are too poor to pay for school materials.

Due to a lack of clean, safe water, waterborne diseases such as diarrhoea, bilharzia, typhoid and cholera are very common. Tuberculosis is also widespread. Health facilities are limited and more difficult to get to in rural areas. Women receive very little care during pregnancy and childbirth.

History

In the past, Ethiopia was known as Abyssinia and before that Cush. Its history stretches back to before 1000BC, when the Queen of Sheba, who according to legend was from Ethiopia, visited King Solomon in Israel. From the early centuries AD, kings and emperors ruled the country. Unlike most of Africa, Ethiopia was not colonised, although Italy occupied it briefly from 1936 to 1941. In 1975 Ethiopia abolished the monarchy and became a republic.

Here is a time line of some of the main events in recent Ethiopian history.

1889 Menelik II becomes the most powerful ruler
1896 Menelik defeats Italy when it invades Ethiopia. Italy gains control of Eritrea.
1896 Addis Ababa is built as the capital
1906 World powers recognise independence of Ethiopia
1930 Haile Selassie crowned Emperor of Ethiopia
1935 Italy invades Ethiopia; six years of military occupation follow; Haile Selassie exiled in Britain
1941 Italians defeated by Ethiopian guerilla army and Allied troops. Haile Selassie returns from exile
1962 Eritrea annexed by Haile Selassie; the Eritrean rebel movement (ELF) forms; start of civil war
1972 An estimated 200,000 Ethiopians die in the 1972-73 famine
1973 Junior army officers, later known as The Derg (committee) overthrow the ageing and unpopular Haile Selassie. Political turmoil follows
1975 The Derg abolish the monarchy and proclaim a republic
1975 Armed resistance begins in Tigray province
1977 Lieutenant Colonel Mengistu Haile Mariam becomes the undisputed leader of the Derg regime
1977 Territorial dispute leads to war with Somalia
1978 Ethiopia secures victory over Somalia with massive support from Russian and Cuban troops
1983 Severe famine affects over 5 million people, in 12 out of 14 provinces

1984 BBC footage of famine begins a major international aid programme
1985 An estimated 500,000 Ethiopians die in the 1984 - 85 famine
1986 Mengistu establishes the People's Democratic Republic of Ethiopia, with a Marxist-Leninist constitution
1987 Major famine causes more deaths
1989 Rebel forces drive the government out of the Tigray province capital
1989 Major famine in 1989 – 1990
Since 1972 an estimated total of 2 million deaths from famine
1991 President Mengistu flees the country
Vice President Kidane negotiates a cease-fire with Eritrean rebel forces
Rebel forces enter the capital Addis Ababa, disarm the defeated government army and re-establish order in the cities
In Eritrea, rebel forces establish The Provisional Government of Eritrea.
Transitional government rules in Ethiopia
Eritrea is declared free to hold a referendum on independence
1993 Almost 100 per cent of Eritreans vote for independence
1994 Famine becomes critical with 5000 deaths over 6 months in one district
1995 Ethiopian national elections held. Negasso Gidada becomes President
1997 Three years of drought begin
1999 As large grain reserves are depleted, food shortages threaten millions of Ethiopians
2000 Relief agencies distribute food in the hardest hit areas
The rainy season begins in October, possibly ending the drought
Haile Selassi reburied in November
UN troops scheduled to begin peacekeeping duties on Ethiopia/Eritrea border

Famine

Ethiopia, and in fact the entire Horn of Africa region, is prone to drought. Sometimes, the rains fail for several years in a row, and then large areas of Ethiopia are unable to grow any food. Because the people are already poor, they have no money to buy food from outside. People sell their animals, and then their few possessions, just to survive. If the drought continues, people begin to starve.

It seems to many locals that these droughts have been getting worse over the last few decades. There are probably several things which have made the droughts worse, or have meant that drought is more likely to lead to famine.

- The population is increasing, so each family has less land and is more vulnerable to drought.
- Many communities have cleared forest to gain more farming land, but the deforestation reduces rainfall and leaves soil that is less able to hold water.
- Climate change may also contribute to the reduction in rainfall.
- Civil war in the 1980's, and continuing border unrest, leave the country with few resources to help when its citizens face famines.
- Ethiopia is struggling to pay its international debt, which again leaves the government unable to develop the country or respond well to emergencies.

Ethiopia suffered major famines in 1974 and 1984. The 1984 famine was due mainly to drought, but was compounded by several years of war. By the time images of the

famine reached the outside world, 5 million people were at risk of starvation. Feeding centres set up with the money which poured in saved many, but sadly, 500,000 died.

Drought returned in 1990, and again, more severely in 2000. For three years from 1997 to 1999 there had been little rain in Ethiopia, threatening widespread famine in many areas. In 2000, the early rains failed and 10.5 million people needed food aid. Although the later rains arrived, most of these people still need extra food to help them cope until agricultural production recovers.

Although this recent drought has caused suffering, changes since 1984 have meant that the people have been better able to cope with drought. In many areas, community development programmes run by World Vision and other agencies are helping the people to withstand drought.

Economy

Eighty per cent of the working age people are engaged in subsistence agriculture, growing food and cash crops for domestic markets and for export. Only 1.8 per cent of cropland is irrigated.

Ethiopia depends on coffee for over 60 per cent of export earnings, but also exports cotton and sugar. Few mineral resources exist, although gold is mined in the south and west. Lakes in the Great Rift Valley have great potential for generating geothermal power for electricity.

Ethiopia is one of the 41 highly indebted countries in the world. In 1996 Ethiopia owed US$10 billion (NZ$25 billion) in debt repayments. It received only 3.67% of this (US$367 million or NZ$917.5 million) in economic aid around that same time.

During the 1970s the communist government ruling at that time started a system of land control which, with only minor changes, is still in force today. Nobody may own land in Ethiopia but the government. In rural areas, when a man aged 18 or above marries or demonstrates that he can build his own house, he joins a Peasant Association and is entitled to an allocation of land from the government.

The system is beneficial in one way – any family may be allocated land, irrespective of whether they could afford to buy it or not. But in places where the population is high there can be a problem – the government may from time to time reallocate the land because there is not enough to go around. That would mean a family suddenly found itself trying to survive on less land than before.

Although families may agree to lend or share land, it is complicated, and in practice few do so. That means that when a family is becoming successful, there is a practical limit to how far they can increase their income through farming activities. They must look to other business solutions if they want to become more prosperous.

Life in Saatusa

Saatusa Community

The Saatusa area is about 475 kilometres from the capital Addis Ababa, in the Boreda Abaya district (in the Southern Peoples' Region). There are about 30 villages in the Saatusa area. Many of the families living in this district settled there in 1974 when an influx of people came from several more densely populated highland areas.

There is no electricity in Saatusa so people use firewood for cooking and paraffin lamps for light.

Every day in most villages there's a small market or '*giya*' (pronounced gee-ya). People sell surplus food such as maize, lentils and uncha. Other items for sale are spices, firewood and salt.

The closest town, Birbir, is 4 to 5 kilometres away, across the Shiffe river. Birbir is the main town in the Boreda Abaya district and it has electricity. The town is much larger than the villages and has a bigger market every Saturday. The market sells a wider range of food such as bananas, sweet potatoes and prepared foods plus quite a number of household items such as plates, cups, matches, material and clothes. There is a large health clinic in Birbir where health staff treat more serious cases from villages.

Our Stories

Abaynesh

Abaynesh is a sparkling, enthusiastic 13 year old, the eldest in her family. She lives in the Saatusa area of Ethiopia. She most enjoys science in Grade Four of her school, and plays a mean game of '*mancha*' with her friends. Abaynesh modestly admits she is good, but not *that* good – "there are even some girls smaller than me who can play as well as I do."

Whenever there is free time, at home or at school, Abaynesh loves to go and play with her friends. Her best friend is Britukan. If Abaynesh isn't playing games, she likes nothing more than to sit in the shade of a tree with her friends, plaiting each others' hair and talking about school and families.

"It only takes five to 10 minutes to walk to school. We have to cross the big asphalt road, which is a bit scary, but we wait until all the traffic is past," she says.

When she's older Abaynesh thinks she might like to be a teacher. In a culture where girls her age often get married, her dad Ayele supports her plans – in fact, he thinks she hasn't set her sights high enough.

"She wants to be a teacher because teachers are the only people she sees, but there are better options; she could be a medical doctor or a professional in other fields," he says. The fact that there are no examples in their village of girls who have gone on to university does not daunt him: "I want all my children to finish school, go to university and become self-reliant. I don't think they should get married so early."

Abaynesh's family - parents Ayele and Solane, two brothers, two sisters, an uncle and a grandmother, live by farming their 1.5 hectares of land. Mostly, they grow maize and

sweet potatoes, but they also have some fruits, vegetables and coffee for their own use, plus a little cotton to spin and sell.

Abaynesh works hard at home helping her parents with chores like sweeping the house, tidying up, cooking, and cleaning the dishes. She collects water from the community bore and helps her mother to prepare coffee and food. She also cuts grass for their calf and ox.

"I love my family, and I'm proud to be a good girl in the home," she says boldly. "I like to help my mother, and I want to be like her."

Abaynesh knows many songs. Some are old cultural pieces that are taught in school, and she doesn't mind dancing along with them – but she prefers to sing the Gamo Christian songs she is taught in church on Sunday. She starts singing, "Jesus is my boat, I jump into him, and I shall have no fear of any storm in life."

Abaynesh's favourite food in the week is *injera*, the fermented pancake made from *teff* grain, especially served with a local form of white, curdled cheese.

Admassu

Abaynesh's 12 year old brother Admassu is a cheerful soul who would like nothing better than to do what his father does. He loves school, and as he gets good grades in mathematics he chooses that as his favourite subject.

"When I'm on holiday I have to do more of the chores that I usually do in the mornings: I collect firewood, run errands, clean the house if I'm asked to, and go with my father to do work."

It's this last thing that he enjoys the most. He uses a 70 cm *panga* (large machete) to chop stubborn weeds while Ayele guides the oxen and plough. He also has responsibility for the cow and calf, and looks after the oxen while they graze after they have finished ploughing. Other village boys hang around, too, so this final duty is one that gives him plenty of opportunity to talk, play soccer with a ball made from old rags, and challenge his friends to a game of *bule* (like marbles).

The innocent playtime of Admassu's afternoons may soon be over, however. His father, Ayele, was 12 when he first ploughed a piece of ground by himself, and he thinks it will soon be time for his son to get more serious with the oxen and heavy wooden plough. Admassu's slight frame seems unsuited to the heavy work of ploughing, but Ayele is pretty confident his son will do fine. Admassu agrees: "I want to do the things my father does; planting, weeding and ploughing. I am proud of my dad when I see the hard work he does."

While Admassu seems very well-behaved, he certainly knows what punishments are given at the local school. "They lash us with small sticks if we do something wrong," he reports. "With the bigger boys, they make them weed and clear the compound with *pangas* as a punishment."

Admassu most enjoys eating *injera* (the fermented pancake made from *teff* grain) and specially prepared beef.

Wubita

Wubita, 12, of Saatusa, is the top girl in her class and third overall – not bad when you realise there are 54 children in her class.

Wubita's father Meja is delighted by his daughter's success so far and is grateful for the New Zealanders whose sponsorship has made it possible for Wubita to go to school. As part of the community development programme in the area, Wubita has books and a uniform, and the school has several new classrooms which make learning much easier.

Wubita wants to be a science teacher when she leaves school, and given her academic success, it's an ambition well within her reach. "I enjoy science because it teaches how to do things in new ways and explains how things work," Wubita says.

So far she says she has learned about how the reproductive cycle works in animals and in humans, the importance of environmental conservation and how irresponsible behaviour by people can harm the environment. She's also learning about nutrition and how eating the right kinds of foods can keep a person strong and healthy. "Fish is excellent," she recommends, "it gives you good strong bones."

Everyday life

Houses

Houses in the Saatusa area divided into two types. The most common is a distinctive, tall, circular mud-wall and thatch building called a '*gattaketta*'. Then there are also several square mud-brick homes with corrugated iron sheet roofs. In highland areas nearby, people use another design of house made of bamboo.

A house with iron sheets is more expensive to build than a thatched home, but that does not necessarily mean that the family has more money. Some thatched homes are beautifully maintained and have quite good furniture inside. Iron roofs are better at keeping the rain out, but thatched roofs are much cooler in the day and let the air circulate more freely at night.

When people build new houses in the village they all work together in a shared labour system called '*dagua.*' On average, a man can expect to be called out 10 times a year to help people build their homes. The women help out too – by preparing food and coffee for the men.

Meals

Food is traditionally eaten with the fingers with everyone sharing the same plate. The trick is to pull off a small piece of pancake and pick up morsels of food in it. Coffee is served with every meal. At the end of the meal everyone swills and spits out a mouthful of water onto the ground. Bad breath is considered very impolite.

<u>Breakfast</u>
Sweet Potato
Maize pancakes (kita)
Roasted maize and chick peas or lentils
Uncha – a porridge or cake made from enset leaves and maize flour
Boiled green vegetables (like spinach)

Lunch and dinner
Maize – roasted, boiled or made into pancakes
Sweet potatoes – boiled or roasted
Fruit – the children may eat fruit at dinner time occasionally, especially mangos and oranges.
Uncha – a porridge or cake made from enset

Food for Sundays
Injera – pancakes made from teff

Food for special occasions
Itma – dough made from enset

Recipes

Sweet potato - sekwaderich (Eaten for breakfast)
Chop or slice sweet potatoes into small pieces then boil or roast over hot charcoal.

Maize pancakes - kita (Eaten for breakfast, lunch or dinner)
Grind maize kernels into powder and mix with a little wheat flour and finely chopped cabbage. Add a little water and work into dough, press or roll flat, then cook on a smooth surface (griddle) over charcoal.

Roasted maize (Eaten for breakfast)
Take maize kernels and lentils or chickpeas and stir them vigorously on a flat pan over a hot fire.

More maize (Eaten for lunch or dinner)
Roast or boil maize kernels and combine with pulses (lentils, chickpeas and occasionally haricot beans) and vegetables (cabbage is popular, so is a leafy plant like spinach). Add meat only on special occasions.

Sweet potatoes (Eaten for lunch or dinner)
Boil or roast sweet potatoes and serve with sauce made from vegetables, pulses or maize.

Coffee
Coffee is made in a traditional coffee-pot that has a rounded base, spout and handle. It is important to have something to serve coffee in, so people value their small china coffee cups.
When serving family and guests with coffee, a little coffee is poured into the first small, china cup. This cup is emptied into another cup and the coffee is transferred from cup to cup, usually about 12 cups altogether. After this, fresh coffee is poured into each cup and served to everyone.
As well as coffee made from coffee beans, there is another drink made from the leaves of the coffee plant. The leaves have a more bitter taste than the beans. There are various recipes. Not everyone likes the flavour, but people who do like it say it takes a while to get used to drinking it.

School

School runs from Monday to Friday in two shifts. Children in grades two, four and six go to school in the morning, from 8am to 12. Children in grades one, three and five go in the afternoon, from 1pm to 5pm. There are about 700 students and some classes can have up to 70 students.

Children can start school when they are five years old, but many children don't begin until they are much older. School is mostly free, but the extra costs for a simple uniform and school materials is what stops many families from enrolling their children. When the family goes through hard times, they may keep their children home from school to help grow food.

Children finish elementary school when they are around 12 years old or grade six.

In the past, all schools in Ethiopia taught and tested in the main language Amharic. Children who spoke other languages had to learn Amharic first before they could understand anything at school. It was a difficult language to learn with 256 letters in the alphabet and a special script. Children can now learn in their home languages, which are written in the Latin alphabet that we use.

Celebrations

Life in rural Africa revolves first around the immediate family, then the extended family, then the village or community.

Sundays

Sunday is considered to be a special day. "It is a day when we go to Church, after which the whole family stays at home. It is a rest day. We do not have to go to school, and dad does not have to go to the garden," says twelve-year-old Admassu.
Sunday brings with it special meal treats.

Weddings

Unlike other countries in East Africa, marriages in Ethiopia are not arranged by the senior family members, or initiated by a young man abducting a young woman. Instead, young people make their own choices. The young woman's willingness determines whether the marriage will go ahead or not.
Weddings generally take place in December and January, when food is at its most plentiful and a feast is more or less assured. In addition to the best available local fare, the newlywed couple get to share a special food for their honeymoon that is not generally available – *itma*, made from the false banana (*enset*).

Funeral rites vary according to the religion of the deceased and the family. The rural Orthodox funeral requires a march and an involved ceremony led by the Priest. The Protestants tend to remain at the graveside and at the home (which are often the same place). In both cases there is food immediately after the funeral, and all the mourners are fed. Relatives and friends may then remain with the family for several days, and again the family is responsible to feed them – though mourners will contribute food to the family. After the period of mourning is over, the family may eat a special meal together, perhaps involving *injera* and meat of some sort.

Birthdays are not normally observed in rural Ethiopia. People don't keep birth dates so they can't celebrate birthdays.

Christmas and Easter

The religious calendar varies from the rest of the world, with **Christmas Day** falling on 7 January, and **Easter** usually two weeks later than the dates in other countries. "Christmas is a good time," says Abaynesh enthusiastically. "At Christmas we collect flowers and put them on the doorstep, spread them in the rooms and the church. At church we sing special songs and eat special food. We kill an animal at church and cook it to eat together. We also kill one at home and share it with our neighbours. We bring *itma* and barley flour and prepare a special dish with that. We all enjoy it."

Games

Mancha

Mancha (meaning 'broken clay') is a game that girls play. It is like hopscotch, played on eight squares. The more complicated versions of mancha are fiercely competitive, involving athletic footwork, accurate jumping, blind stone throwing and the capture of territory to use against the opponent.

Basic Instructions

In the dust make a 4 x 2 grid of eight squares, each about 45 centimetres square.
While hopping on one leg throw a stone into the first square.
Kick the stone into the next square using only the leg you are hopping on.
If the stone lands within the boundaries of the next square, continue until you have kicked the stone into all eight squares in sequence.
If the stone does not land in the correct square or lands on a line, you are out and the next person has a turn.

Bule (pronounced boo-leh)

Bule is most like some games played with marbles and is played by boys. It involves carefully throwing various numbers of coffee beans into a small, cup-size hole dug into the ground. If you miss the hole you can get back a missed bean by throwing a stone and hitting the bean with it. There are lots of complicated rules and variations that make it hard to guess who is even winning the game.

Garu

Garu means 'cart' and boys in Ethiopia and all over Africa like this game. Make a hoop or wheel using rubber cut from the side of an old bicycle tyre. Start the wheel or hoop rolling along and use a stick to keep it rolling and upright as you walk or run.

Working for change

World Vision, an international relief and development agency, has worked in Ethiopia since 1971 when the country began experiencing major droughts and famines.

World Vision first came to the drought-hit Boreda Abaya district in 1987. World Vision workers distributed food to people facing starvation and then helped people restart food production with 'ag packs' (agricultural packs) of essential tools and seeds.

In consultation with village leaders, World Vision staff found ways to address the difficulties that people in the district faced. They started the Saatusa Area Development Project (ADP) in 1991. Fourteen village areas bordering Lake Abaya benefited from new development activities in health and education, and food for work schemes. However the district continued to suffer from droughts – five in the last 15 years.

Since 1991 the project has grown to help 22 village areas in the lowland district of Boreda Abaya, and from 1998, 20 more village areas in the neighbouring highland Chencha district. Now the project serves a total population of 152,542 in 42 village areas. Most of the funding for the development work comes from child sponsors in New Zealand, Australia and the United States.

World Vision's development activities are planned to continue until the end of 2002. The focus is helping people improve their living circumstances and training them in business, resource and disaster management. Then they will be able to cope with seasonal changes without being devastated in bad years and will no longer need outside help.

The people in Saatusa Area Development Programme, with help from World Vision, have accomplished these major developments from 1991 to 1999.

Agriculture
- Distributed 2.4 million seedlings of different kinds to families for planting
- Planted 558 kilometres of trees to improve environment
- Vaccinated 35,329 head of cattle
- Built three irrigation structures
- Constructed one veterinary clinic

Education
- Constructed and furnished the first high school in Boreda Abaya, in Birbir
- Constructed and furnished 19 classroom blocks in several elementary (primary) schools
- Established two new elementary schools
- Provided basic school materials for 35,384 children and school uniforms for 35,719 children

Health
- Built six new health posts
- Constructed and furnished two health clinics
- Drilled seven deep water wells

Thanks to these changes, a number of villages in Saatusa have coped well through the 2000 drought, growing or buying the food they needed. Some other villages could not grow enough, so they required food distributions for about one third of their families. World Vision purchased locally grown maize and distributed 12.5 kgs for every person in the family each month. When crops fail, farmers lose not just food but the seeds for their next harvest, so World Vision is supplying seeds so farmers can plant for the next harvest. This will continue until farmers can harvest enough food. Other villages are participating in World Vision Food for Work schemes, earning food supplies for their labour on community building projects such as irrigation canals. They receive maize according to how much work they contribute.

Help from outside

The changes in Saatusa are the result of an Area Development Programme run by World Vision Ethiopia, which is part of the wider World Vision partnership.

World Vision is:
"an international Christian humanitarian aid organisation dedicated to serving the poor and needy through development and relief programmes around the world"

Each office within the Partnership is an independent entity, and projects are run by World Vision staff from within the country and culture they work in.

The Saatusa Area Development Programme is supported by New Zealanders, Australians and Americans through child sponsorship. Sponsors give a set amount each month, and this money is pooled to provide for the development of the whole community.

During the drought in 1984, and in most of the subsequent droughts, World Vision Ethiopia asked for extra help to provide emergency relief to the people who were at risk of starvation. Many World Vision offices around the world responded by running appeals for donations. Some money also came from children and young people taking part in the World Vision Famines in their country. The money raised by children going without food, and the money from adults who responded to emergency appeals, all helped World Vision Ethiopia to provide food, shelter, seeds, tools and other necessities to alleviate the effects of the drought.

Food Issues

Famine and Hunger

When you think of "hunger", what image comes into your mind? Perhaps you think of walking past McDonalds, and wishing you could go in for a burger and fries. Or maybe you think of the way your stomach grumbles when you've been running round all morning, and it's time for lunch.

That grumbly, empty feeling is your body's way of telling you it needs food. You feel hungry, you eat something, and you feel better, because your body now has the fuel it needs to live, move, think and grow.

But – what happens if you can't eat when you're hungry? What if there's no food around, or you can't afford the food that's there? Imagine feeling hungry, and knowing that you won't be able to get any food for the rest of the day, or even for several days. If that happens too often, or for too long, you'd be at risk of one of two things – long-term hunger, or starvation.

Starvation: Extreme hunger, caused by having hardly any food for a few weeks or months. Starvation is most often seen during a famine. If starving people cannot get food quickly, they can easily die. Young children and elderly people are the most at risk of dying from starvation.

Famine: Acute shortage of food in a particular area. Famines are most often caused by natural disasters, especially droughts, when a lack of rain makes it impossible to grow food. If people are already poor, or if there is war in the area, a natural disaster can lead to a very severe famine.

Long-term hunger: Not having quite enough food over a period of years. This type of hunger is often called "hidden hunger" because it is not as obvious as starvation. However, it is much more common and can be deadly. When children get too little food, or don't get enough of the right kinds of food, they can't grow properly, and they lose energy. Illnesses which would be no problem to a well-fed child can kill a child who is suffering from long-term hunger.

Global Picture

The Food and Agriculture Organisation, a division of the United Nations, measures the amount and type of food people in different countries get. Here are some of the figures they collected for 1998. As you read these figures, keep in mind that the average person needs between 2,200 and 2,400 calories a day to be healthy and to be able to work efficiently. Very active people (for example, farmers who have to do hard physical work all day) need more.

Countries with the most food:

Rank	Country	Calories per day per person
1	USA	3,757
2	Portugal	3,691
3	Greece	3,630
4	Ireland	3,622
5	Italy	3,608
21	New Zealand	3,315

Countries with the least food:

Rank	Country	Calories per day per person
1	Somalia	1,531
2	Burundi	1,578
3	Dem. Rep. Congo	1,701
4	Eritrea	1,744
5	Afghanistan	1,774
6	Ethiopia	1,805

These are AVERAGES for each country. Many people in each country may actually eat much more, or much less than the average for their country.

To look at the figures for all countries, see the spreadsheet at the end of this unit, or download the file from the internet site, in the "Get the Facts", "Food Issues" section.

Causes

The causes of hunger are many and complex, but almost all relate to poverty in some way. For example, in a drought, rich people have money to buy food, so they don't starve. That is why developed countries like the United States, France or New Zealand don't have severe famines – their governments and people can afford to feed themselves, even when their land can't produce food.

So, hunger and starvation are related to poverty – but what causes that? Usually many causes contribute to a particular family's or country's poverty. That's why poverty is so hard to fight – if you focus on just one cause, the others will still have their effect. To make things harder, the different causes are often interrelated – that is, they contribute to each other. This list summarises some of the main causes of poverty, in no particular order.

1. Environmental degradation
2. Inefficient farming methods
3. Cash cropping (eg tobacco or coffee)
4. Unequal land ownership
5. Unfair trading conditions – local and international
6. Debt – personal and national
7. Lack of education
8. War or unrest
9. Crime
10. Oppression of certain groups (eg women)
11. Rapid political change
12. Colonialism and its after-effects
13. Repressive regimes

Relief and Development

There are two main types of aid – emergency relief, and community development. Both are important in ensuring that people in different situations have enough food for a healthy life.

Emergency relief helps people survive in the days, weeks and months following a disaster or emergency. It's often a matter of life or death, and it's critical to get the right help to the people most at risk, as quickly as possible. The type of help needed depends on the type of disaster.

Natural disasters are caused by extreme environmental conditions. They include things like droughts, floods, earthquakes and tornadoes.

Complex humanitarian emergencies are a combination of events, including natural disasters or human action, like wars or civil unrest. There are different levels of complex humanitarian emergencies. War with a natural disaster is the hardest for the people trying to survive, and for aid workers trying to help them, as the dangers of war are added to the problems of the natural disaster.

Every emergency situation is different. Some disasters, like cyclones, volcanic eruptions or earthquakes, come suddenly. One day, life is normal, but the next day,

people have no home, no food, no clean water. They need help quickly, or many will die in the first few days. Other disasters, like droughts and civil wars, come on more slowly. By the time the outside world hears about the problem and the public responds, people may have been struggling for months, and may be very weak.

Whether the disaster is natural or man-made, and whether it comes suddenly or creeps up over months or years, people need the right help at the right time. Agencies like World Vision have experienced staff who have worked in many different emergency situations, and who know how to make sure the right help gets to the people who need it most.

Community development is much more long-term. It aims to address the causes of long-term poverty, by working with a community to help them plan and implement changes which will improve their lives.

Most community development projects include providing healthcare and education for the children, finding sources of clean water, increasing agriculture, improving the environment with reforestation or soil conservation, developing small businesses, training people in leadership skills, and sometimes even improving roads or obtaining electricity. Community members make all the decisions, and workers hope that after ten or fifteen years, the community will be able to continue the improvements without outside help.

Good development work is:

- **Participative** – getting people involved in their own development.
- **People-centred** – focusing on people, rather than money, buildings or other more visible changes.
- **Sustainable** – respecting the environment, and ensuring that improvements can continue in the long term.
- **Structural** – addressing deep causes, as well as symptoms, of poverty.
- **Empowering** – finding ways to transfer power for self-determination to the people, often through leadership development.
- **Holistic** – remembering the importance of social and spiritual development, as well as economic changes.

Appendix II

Ethiopia Connection sample fax

Fax

Date : 5th March 2001

To : Ethiopia Connection coordinator
Note: if you do not know who this person is in your school, please call Susan Warren to check.

From : Susan Warren, World Vision New Zealand
And Sharon Crosbie in Ethiopia

No. of Pages : 3

World Vision
New Zealand

Private Bag 92078
Auckland
New Zealand

[redacted]

www.worldvision.org.nz

Ethiopia Connection

Welcome to the Ethiopia Connection. Over the next four weeks, we'll be doing everything we can to create a memorable unit for your classes. If sometimes things don't go as you would wish, please forgive us – but also let us know, so we can put things right!

Do make good use of all the opportunities in the programme. Encourage your students to send questions and take part in discussions on the site; check the daily stories; send messages to the Ethiopian children; listen in (and maybe even speak) during the audioconferences. The more communication there is, in both directions, the more fun and learning there will be, both here in New Zealand, and in Ethiopia.

A note about questions and answers. In "get answers", you can see the most interesting and original questions by clicking on the category you are interested in. It's worth scanning through this area before sending your own questions, in case the answer is already there. When we receive questions which are similar to previous ones, we'll still answer them, but they won't come up in the categories. To find these answers, go to "get answers", enter either the student's name, or the school's name, in the search section and click "go". All answers for that person or school will then appear. Remember to allow two to three days for us to answer most questions – longer for complex ones, or for those requiring us to ask children for their response.

I know many of you are making the programme even more relevant by doing the 20 or 40 Hour Famine in your schools. I'm sure the students will get a real buzz out of communicating with some of the children they're helping on the Famine. If you haven't got your Famine pack yet, it's not too late. Just call us on 0800-FAMINE.

One last "house-keeping" matter. At the end of this message, you'll find the list of questions for this Thursday's audioconference. You may wish to copy the list so your students can follow the questions, and perhaps take notes, as they listen to the call.

So – enough from me – I'll let Sharon take over.

First Impressions

The end of my long journey from New Zealand was in sight as my plane circled the city of Addis Ababa waiting for clearance to land. Some high-rise buildings and a mixture of modern and traditional grass type huts spread out in front of us. The main colour was brown with touches of green. A reminder this is a warm climate and the rainy season is not yet here.

Welcomes and introductions are made. I am struggling to remember these new names - Zerihun, Mattoes, Yegezu, Geremew, Asfaw and Solomon. My excuse is I am tired after my travels. Discussion about my programme takes place.

I am taken to my hotel – the Imperial. From the third floor balcony I am able to watch the constant activity of people of all ages going places, on foot, donkey cart, bicycles, taxis, mini bus, truck and bus. The hotel staff, like the World Vision people, are warm, friendly, considerate and so helpful. I am to find this is the Ethiopian way. To be a guest in this country is to be well looked after.

After one night's rest Geremew (translator) and Asfaw (driver) pick me up in the 4WD Toyota Land Cruiser. This kind of vehicle is essential to manage on the roads in Ethiopia. Potholes big enough to have a bath in if they were full of water, stretches of road that require lowest gear and careful negotiation contrast with good quality tar-seal. Evidence that Ethiopia is a country working hard to keep up with many basic services we take so much for granted in New Zealand.

Doesn't matter if you are in the city or country there is always a constant stream of people going places along the road. Livestock too, like donkeys, cattle and goats. I have even seen a leopard and baboons. For this reason Asfaw the driver must stay wide awake, looking always and anticipating the movements of animals and people alike. The horn is used lots as a friendly and essential reminder – 'I am coming, be careful' or 'Stay out of the way' or 'I want to pass you'.

The drive to Saatusa where we are headed is 460kms and with breaks takes 10 hours. Geremew and I exchange stories about our lives and countries. We begin my lessons in Ethiopian Amharic. The word endings vary depending on how many people you are talking to or if it is a male or a female. So for example there are three different ways to ask 'what is your name?' I find 'thank you' a long word and very hard to get all the sounds right – 'amesegenallo'. We'll keep trying. Just as well Geremew is a patient teacher.

It is getting very warm as we travel down from the cooler highlands of Addis Ababa to the lowlands of Western Abaya. My doctor in New Zealand had told me 'No swimming in Ethiopia as the freshwater lakes have bilharzia'. This is a disease you'd never want to get. Lake Lagano, our lunch stop offers a very pleasant surprise. It is bilharzia-free. Although the water is like the colour of a cup of milky tea it is very refreshing. The backdrop of mountains make this a very attractive place.

First impressions are this is a wonderful country with friendly people, varied scenery and many wonderful new, exciting, and challenging experiences. I count myself very lucky to be on this journey and together I am sure we will learn much.
Warm Regards, Sharon.

Week 1 Audioconference Questions

Here are the questions for this week's audioconference on Thursday March 8th at 2-00pm. You may wish to copy them for your students, or even give them out as a note-taking prompt. To listen, [redacted] and key in the listening school's PIN number, which is [redacted] You may wish to dial in a few minutes before the hour, to ensure a line. If you have any trouble, call Telecom on [redacted] for assistance. If you are a speaking school, I will send instructions separately. DO NOT USE the above PIN number if you are a speaking school.

1. What type of foods do they eat? (Sefton School)

2. What do people do to store or save food for the dry seasons? (Bucklands Beach Intermediate)

3. In New Zealand we drink a lot of water during the day. How do the children in Ethiopia get lots of water to drink during their day? (Logan, Tatuanui School)

4. When the short and long rain seasons come, why can't you store water in a reservoir and use the water during the hot dry season to irrigate the crops and provide water for the people? (Bucklands Beach Intermediate)

5. A lot of African people depend on the land. How many hectares of land do families own? Is there enough good land for all the people? (Hannah Jones, Greta Valley School)

6. How much money do they normally make from a good crop and how long would that last a family? (Otepopo School)

7. How do they make their houses? Do they do this alone or with other people? (Richard, Tatuanui School)

8. What age are children when they start school and do they have classes for certain ages or are the classes for all ages? (Otepopo School)

9. What do you use for medical equipment? Are there many doctors and are they available to everyone? (Otepopo School)

10. Is Ethiopia a rich country or a poor country? (Sefton School)

11. What are the main causes of famine and starvation in Ethiopia? How does this affect family life? Are things improving? (Alexander Meares, Greta Valley School)

12. Does the government contribute to community relief? If so, how? If not, why not? (Bruce McLaren Intermediate)

13. What happens with sponsor money? Does your community – Saatusa community – receive money as a result of the famine? (Bruce McLaren Intermediate)

14. What do the children think their lives will be like in the future? (James Gibb, Greta Valley School)

Appendix III

Pre-programme teacher interview schedule

Pre-programme Teacher Interview

1. Thinking about Social Studies units, not necessarily internet-based ones, but any that you run in your classroom, what things do you think make a Social Studies unit successful?

2. Now thinking about internet-based programmes – what things do you think make those successful in the classroom?

3. What made you register for the *Ethiopia Connection*?

4. What are you hoping for from it? What things would your dream programme have or do?

5. Imagine you are half way through the unit, and it is going well – even better than you expected. What do you notice in your students, or in the classroom as a whole, that makes you feel that way?

6. What do you think your students would see as the characteristics of a really successful unit?

7. If the unit was going badly, what would you be noticing in your students or the classroom as a whole?

8. Imagine you are at the end of the unit – are there any extra things you would be noticing or measuring if the unit had gone really well?

9. Is there anything else you would like to say that might help me understand what you are looking for from the Ethiopia Connection, or how I might evaluate it more meaningfully?

Thank you for your time.

Appendix IV

Information sheet for teacher interviews

Information Sheet

My name is Susan Warren, and I am studying towards a Master of Education paper with Massey University. As part of my degree, I am going to be doing a formal evaluation of World Vision's Internet-based Social Studies programme, the "Ethiopia Connection", which I run. The aim of this evaluation is to find out what people want from such a programme, to see the effect of the Connection on students' learning and attitudes, and to improve the Connection for future years.

To help me with this evaluation, I'm asking a number of teachers who have registered for the Connection for their views on what they want from such a programme, so I know what to look for when I evaluate it. The interview would be held at a time and place to suit you, and would take about 20 minutes. When I report on these interviews, I will describe overall trends, opinions by category of teacher or school, and some direct quotes. I will not identify any individual teacher or school in the report. Once all the results are analysed (probably around September this year), I will provide a summary report to everyone who has been part of the research.

If you are willing to take part in this interview, please sign and return the attached consent form. You will be free not to answer any question and you may terminate the interview any time you wish. You are also welcome to ask for further information on the research.

Warm regards,

Susan Warren.

Contacts:

Researcher: Susan Warren
World Vision of New Zealand
[redacted]

Supervisors: Mark Brown,
Department of Learning and Teaching
College of Education
Massey University
phone 06 356 9099 (Exten. 8626)
Fax 06 351 3383

Pre-Int.

Appendix V

Consent form for teacher interviews

Consent Form

I have read the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I understand I have the right to withdraw from the study at any time and to decline to answer particular questions.

I agree to provide information to the researcher on the understanding that my name will not be used and my school will not be identified in any reports, and that the information will be used only for this research and for publications arising out of it.

I agree/do not agree to the interview being audio taped.

I also understand that I have the right to ask for the audio tape to be turned off at any time during the interview.

I agree to participate in this study under the conditions set out in the information sheet.

Signed:

Name:

School:

Date:

tch

Appendix VI

Classroom observation sheet

Ethiopia Connection Observation

Use of materials	How used	Apparent purpose	Practical issues	Educational issues
Use of site	How used	Apparent purpose	Practical issues	Educational issues
Other resources	How used	Apparent purpose	Practical issues	Educational issues
Kids' response Interest	Learning	Interaction with site/materials	Interaction with each other	Attitude to developing world

Appendix VII

Student pre-programme attitude assessment

Attitude Survey – Initial

Student code:

My name is Susan Warren, and I work for World Vision. My job is to write the education materials to help New Zealand schools teach their students about the developing world. I am also studying towards a Master of Education degree with Massey University. As part of my degree, I am going to be doing a formal evaluation of World Vision's Internet-based Social Studies programme, the "Ethiopia Connection", which I run. To help me with this evaluation, I'm trying to find out what students like you think and feel about poor people in other countries. All the results from these forms will go together to help us understand how children and young people feel about these issues. We will not mention any names when we report the results. It's not a test, and there are no right answers. You can choose whether to do this or not. Are you willing on that basis to answer some questions for me? It should take about 10 minutes.

1. Please look at this photo. What do you think is happening here?

2. What do you think these people are like?

3. What can you tell me about them?

4. What do you think they are thinking?

5. How does this photo make you feel?

6. What do you think should happen next?

7. (later) Thank you for answering my questions. Do you have anything else you'd like to tell me that would help me understand how you feel about these things?

What do YOU think?

Student code:

The following questions aim to find out what you think and feel about poverty in other countries. All the results from these forms will go together to help us understand how children and young people feel about these issues. Your name will not be added to this form, and we will not mention any names when we report the results. If you're not sure of the meaning of any question, you can ask me.

1. For each statement, circle the number that shows how strongly you agree or disagree with that statement. There are no right or wrong answers, and this is not a test, so just choose the answers that show how YOU really think and feel.

	Disagree strongly	Disagree	Not sure	Agree	Agree strongly
People in Africa are always going to be poor.	1	2	3	4	5
There is so much poverty in the world, it's impossible to make any real difference.	1	2	3	4	5
The best way to deal with poverty is to help people help themselves.	1	2	3	4	5
The rich countries should send their extra food to the poor countries.	1	2	3	4	5
We can learn from people who have less than we do.	1	2	3	4	5
People are poor because they have too many mouths to feed – they should stop having children.	1	2	3	4	5
We should help people in need, because they're people just like us.	1	2	3	4	5
It's not up to us to look after people on the other side of the world.	1	2	3	4	5
People are poor because their governments are corrupt, and they're always fighting.	1	2	3	4	5
We should help people who are suffering, because they can't help themselves.	1	2	3	4	5
If poor people worked harder, or had more brains, they wouldn't be poor any more.	1	2	3	4	5

2. Here is a list of reasons people give for wanting to help people in other countries. Read the list, and rank it according to which reasons are most important FOR YOU. That is, place a 1 beside the reason that's most important for you, a 2 beside the next most important reason, and so on, until you have ranked all the reasons.

	Rank
I feel sorry for people who are in need.	___
I want to give people a chance to improve their lives.	___
I think about how I would feel if I were them.	___
I feel guilty that I have more than they do.	___
If I give money, I won't have to think about it any more.	___

3. Lastly, some questions about you. These will help us in coding the results.

a. Age: _____ years

b. Gender: Boy/Girl (circle your answer)

c. Have you ever done the World Vision Twenty or Forty Hour Famine? (circle your answer)
Never Once Twice More than twice

d. Do you intend to do the World Vision Famine this year? Yes/No (circle your answer)

Appendix VIII

Student post-programme attitude assessment

What do YOU think?

Student code:

The following questions aim to find out what you think and feel about poverty in other countries and about your studies during the Ethiopia Connection unit you have been doing in class. All the results from these forms will go together to help us understand how children and young people feel about these issues. Your name will not be added to this form, and we will not mention any names when we report the results. If you're not sure of the meaning of any question, you can ask your teacher.

1. For each statement, circle the number that shows how strongly you agree or disagree with that statement. There are no right or wrong answers, and this is not a test, so just choose the answers that show how YOU really think and feel.

	Disagree strongly	Disagree	Not sure	Agree	Agree strongly
People in Africa are always going to be poor.	1	2	3	4	5
There is so much poverty in the world, it's impossible to make any real difference.	1	2	3	4	5
The best way to deal with poverty is to help people help themselves.	1	2	3	4	5
The rich countries should send their extra food to the poor countries.	1	2	3	4	5
We can learn from people who have less than we do.	1	2	3	4	5
People are poor because they have too many mouths to feed – they should stop having children.	1	2	3	4	5
We should help people in need, because they're people just like us.	1	2	3	4	5
It's not up to us to look after people on the other side of the world.	1	2	3	4	5
People are poor because their governments are corrupt, and they're always fighting.	1	2	3	4	5
We should help people who are suffering, because they can't help themselves.	1	2	3	4	5
If poor people worked harder, or had more brains, they wouldn't be poor any more.	1	2	3	4	5

2. Here is a list of reasons people give for wanting to help people in other countries. Read the list, and rank it according to which reasons are most important FOR YOU. That is, decide which reason is most important for you, and place a 1 beside it, then decide the next most important reason and place a 2 beside it, and so on, until you have ranked all the reasons.

	Rank
I feel sorry for people who are in need.	___
I want to give people a chance to improve their lives.	___
I think about how I would feel if I were them.	___
I feel guilty that I have more than they do.	___
If I give money, I won't have to think about it any more.	___

3. While you have been studying Ethiopia in your class, how often have you talked to your friends OUTSIDE CLASS TIME about what you have been learning?

a. Never b. Once or twice c. Three or more times

4. While you have been studying Ethiopia in your class, how often have you talked to your family at home about what you have been learning?

a. Never b. Once or twice c. Three or more times

5. If you did talk to friends or family about the unit, what aspects did you mostly talk about?

_____

_____

6. While you have been studying Ethiopia in your class, how often have you brought things to school to show to the class, which relate to what you are learning?

a. Never b. Once or twice c. Three or more times

7. While you have been studying Ethiopia in your class, how often have you used the Ethiopia Connection Internet site OUTSIDE CLASS TIME (eg at home or during lunchtimes)?

a. Never b. Once or twice c. Three or more times

8. Which parts of the Ethiopia Connection did you enjoy MOST (circle no more than five)?

a. Getting information from the "Get the Facts" part of the Internet site
b. Playing the picture and word puzzles in the "Fun Zone"
c. Voting in the poll in the "Fun Zone"
d. Sending questions in "Ask Sharon"
e. Sending messages to the children in "Talk About It"
f. Taking part in the discussions in "Talk About It"
g. Listening to the audioconferences over the phone
h. Listening to the audioconference answers on the Internet site
i. Reading the daily stories in "Latest News"
j. Receiving the weekly faxes from Sharon
k. Watching the video "Food for Tomorrow"
l. Doing hands-on activities with the class
m. Using the written materials and photos
n. Other (please describe) _____

_____

7. Why did you enjoy these things? _____

_____

_____

8. If you could change one thing about the Ethiopia Connection, what would it be? _____

_____

_____

9. Do you have any other comments about the Ethiopia Connection?

_____

_____

_____

10. Lastly, some questions about you. These will help us in coding the results.

e. Age: _____ years

f. Gender: Boy/Girl (circle your answer)

g. Have you ever done the World Vision Twenty or Forty Hour Famine (before this year)? (circle your answer)
Never Once Twice More than twice

h. Did you do the World Vision Famine this year? Yes/No (circle your answer)

Appendix IX

Post-programme teacher interview schedule

Post-Programme Teacher Interview

1. Can you please describe the class or classes who were involved with the programme at your school – age, level, ability range etc?

2. What was your main learning objective for the unit?

3. Did you have any other aims or objectives for the unit, and if so, what were they?

4. To what extent do you feel you achieved the goals and objectives you set for yourself and your class?

5. What changes (if any) did you observe in your student's attitudes to people in need, or to the developing world, during the programme?

6. Can you give some examples of this?

7. How would you rate the programme's interest level for students, as compared to other units you teach in Social Studies?

8. What aspects of the programme do you feel worked best to help you achieve your goals and objectives?

9. Why?

10. What aspects of the programme do you feel made it difficult for you to achieve your goals and objectives?

11. Why?

12. What one thing would you most like us to preserve or increase in the programme next time we run it?

13. What one thing would you most like us to change for next time?

14. How important do you feel the messages to the three children in Saatusa were to the success of the programme?

Essential very important quite important not very important unimportant

15. How important do you feel the audioconferences were to the success of the programme?

Essential very important quite important not very important unimportant

16. How important do you feel the video was to the successs of the programme?

Essential very important quite important not very important unimportant

17. We are considering changing the format of the folder next time, to replace a lot of the printed material with a CD-Rom with interactive elements, student-friendly information much as is on the website, photos, teacher notes, activity sheets and handouts ready to be printed out. This would allow students to manipulate text and photos, and might reduce the cost of the folder, if we did not also include much printed material. Do you think that would be more, or less, helpful than the current folder?

18. Why?

19. Do you have any other comments about the Ethiopia Connection?

Appendix X

Post-programme student interview schedule

PostProgramme Student Interview

1. I'd like you to think about the Ethiopia unit you've been doing in class. Compared to other units you've done in Social Studies, how much did you enjoy this unit –
   Much more a bit more about the same a bit less much less

2. Why did you enjoy/not enjoy it?

3. For you, what was the best part of the unit?

4. Why?

5. For you, what was the least interesting or enjoyable part of the unit?

6. Why?

7. What was the most significant thing you learned during the unit?

8. Why was this significant for you?

9. Has the unit changed the way you think or feel about people in need?

10. In what way?/why not?

11. What was it about the unit that made you change your ideas/feelings about people in need?

12. Has the unit changed the way you think/feel about World Vision?

13. In what way?/why not?

14. What was it about the unit that made you change your ideas/feelings about World Vision?

15. What one thing would you most like us to preserve or increase in the programme next time we run it?

16. What one thing would you most like us to change for next time?

17. Is there anything else you'd like to say about the Ethiopia Connection?

Appendix XI

Student feedback form

Student Feedback Form

What did you think of the Ethiopia Connection? Fill in this form before the end of May 2001, and you'll go in the draw to win a World Vision T-shirt. Send your completed form to Education Team, World Vision New Zealand, Private Bag 92078, Auckland.

Which parts of the programme did you or your class use? (circle all the ones you used)

a. Getting information from the "Get the Facts" part of the Internet site
b. Playing the picture and word puzzles in the "Fun Zone"
c. Voting in the poll in the "Fun Zone"
d. Sending questions in "Ask Sharon"
e. Sending messages to the children in "Talk About It"
f. Taking part in the discussions in "Talk About It"
g. Listening to the audioconferences over the phone
h. Listening to the audioconference answers on the Internet site
i. Reading the daily stories in "Latest News"
j. Receiving the weekly faxes from Sharon
k. Watching the video "Food for Tomorrow"
l. Doing hands-on activities with the class
m. Using the written materials and photos
n. Other (please describe) _____-

4. Which parts did you enjoy most? (circle no more than 4)

a. Getting information from the "Get the Facts" part of the Internet site
b. Playing the picture and word puzzles in the "Fun Zone"
c. Voting in the poll in the "Fun Zone"
d. Sending questions in "Ask Sharon"
e. Sending messages to the children in "Talk About It"
f. Taking part in the discussions in "Talk About It"
g. Listening to the audioconferences over the phone
h. Listening to the audioconference answers on the Internet site
i. Reading the daily stories in "Latest News"
j. Receiving the weekly faxes from Sharon
k. Watching the video "Food for Tomorrow"
l. Doing hands-on activities with the class
m. Using the written materials and photos
n. Other (please describe)_____

5.Which parts did you enjoy least? (circle no more than 4)

a. Getting information from the "Get the Facts" part of the Internet site
b. Playing the picture and word puzzles in the "Fun Zone"
c. Voting in the poll in the "Fun Zone"
d. Sending questions in "Ask Sharon"
e. Sending messages to the children in "Talk About It"
f. Taking part in the discussions in "Talk About It"
g. Listening to the audioconferences over the phone
h. Listening to the audioconference answers on the Internet site
i. Reading the daily stories in "Latest News"
j. Receiving the weekly faxes from Sharon
k. Watching the video "Food for Tomorrow"
l. Doing hands-on activities with the class
m. Using the written materials and photos
n. Other (please describe)

3. While you have been studying Ethiopia in your class, how often have you talked to your friends OUTSIDE CLASS TIME about what you have been learning?

a. Never b. Once or twice c. Three or more times

4. While you have been studying Ethiopia in your class, how often have you talked to your family at home about what you have been learning?

a. Never b. Once or twice c. Three or more times

5. While you have been studying Ethiopia in your class, how often have you brought things to school to show to the class, which relate to what you are learning?

a. Never b. Once or twice c. Three or more times

5. While you have been studying Ethiopia in your class, how often have you used the Ethiopia Connection Internet site OUTSIDE CLASS TIME (eg at home or during lunchtimes)?

a. Never b. Once or twice c. Three or more times

8. If you could change one thing about the Ethiopia Connection, what would it be? _____

_____

_____

9. Do you have any other comments about the Ethiopia Connection?

_____

_____

_____

10. Lastly, some questions about you. These will help us in coding the results.

a. Age: _____ years

b. Gender: Boy/Girl (circle your answer)

c. Have you ever done the World Vision Twenty or Forty Hour Famine (before this year)? (circle your answer)
Never Once Twice More than twice

d. Did you do the World Vision Famine this year? Yes/No (circle your answer)

Contact details (if you want to be in the draw):

Name: _____
School: _____
School address: _____

Appendix XII

Teacher feedback form

Teacher Feedback Form

Tell us what you think. Your ideas will help us improve our education programmes, and they could win you a video and photo pack! That's right.

If you're registered for the Ethiopia Connection, and you fill in this feedback form before May 31st 2001, you'll go into a draw to win the World Vision photo pack and video of your choice. Send your completed form to Education Team, World Vision New Zealand, Private Bag 92078, Auckland.

1. What level class did you use the programme with?

_____

2. What made you decide to take part in the Ethiopia Connection?

_____

_____

_____

3. Did World Vision's involvement have any influence (positive or negative) on this decision?

_____

_____

4. What parts of the Ethiopia Connection did you use? (circle as many as apply).
   a. The written unit
   b. The internet site - teacher use only
   c. The internet site - student use
   d. Faxes
   e. Audioconferences
   f. Sending questions
   g. Messages to the children
   h. Discussions
   i. The kit "Food for Tomorrow"
   j. The video "Food for Tomorrow"
   k. The poster "From Hunger to Harvest"

5. What parts did you find MOST useful? (circle no more than 4)

   a. The written unit
   b. The internet site - teacher use only
   c. The internet site - student use
   d. Faxes
   e. Audioconferences
   f. Sending questions
   g. Messages to the children
   h. Discussions
   i. The kit "Food for Tomorrow"
   j. The video "Food for Tomorrow"
   k. The poster "From Hunger to Harvest"

6. Why?

_____
_____
_____

7. Which parts did you find LEAST useful? (circle no more than 4)

a. The written unit
b. The internet site - teacher use only
c. The internet site - student use
d. Faxes
e. Audioconferences
f. Sending questions
g. Messages to the children
h. Discussions
i. The kit "Food for Tomorrow"
j. The video "Food for Tomorrow"
k. The poster "From Hunger to Harvest"

8. Why?

_____
_____
_____

9. What did your students enjoy most about the programme?

_____
_____
_____

10. Compared to studying Ethiopia or food security using only printed materials and/or a video, what were the advantages of also using the internet?

_____
_____
_____

11. What were the disadvantages?

_____
_____
_____

12. What changes did you see in your students' attitudes to people in need, or to aid and development, during the programme?

a. significant negative change
b. mostly negative change
c. no change
d. mostly positive change
e. significant positive change

13. Please describe or give an example of the change in student attitudes

_____

_____

_____

14.How willing would you be to take part in a similar programme in the future?

_____

_____

_____

15. How could the programme have been improved?

_____

_____

_____

16. Other comments

_____

_____

_____

Contact details (if you want to be part of the draw)

Teacher: _____

School: _____

Contact phone number: _____

Would you like us to add you to our mailing list, so you receive advance notice of World Vision education programmes?

Yes ____ No _____

Appendix XIII

Ethiopia staff feedback questions

Email to Ethiopia Staff

Thank you so much for all the work you put in to make the Ethiopia Connection possible. The programme is now almost finished, and we are beginning to look to next year, and what we can learn from our experiences, so that we can make future programmes run smoothly and bring even greater benefits, both within New Zealand and in the focus country.

I would like to especially learn from each of you about how you feel the programme went at your end. This is important for our planning, and it is also information which I will use in a research project I am doing as part of my Master of Education degree (I am doing an evaluation of the *Ethiopia Connection*). Would you be prepared to answer some questions for me, and then email your answers to me by April 17th (or earlier if possible)?

Please know that we want to hear about everything – both good and bad. Please don't feel reluctant to talk about problems, even ones which you feel we have caused. We need to know about this. We also need to know about things which helped the programme go well, so we can make sure to repeat those things in future. Here are the questions I am hoping you will answer for me:

1. How much time do you estimate your office put into the programme
    a. Leading up to the programme

    b. During Sharon's time in Ethiopia?

2. What activities took the most time?

3. Can you see any way in which this could have been reduced, especially by organising things differently from New Zealand?

4. What, if any, have been the main impacts of the programme (both positive and negative) on:
    a. The WV Ethiopia office

    b. You individually

    c. The people Sharon visited in Saatusa

    d. The Saatusa community overall

    e. The schools in Addis Ababa

    f. Any other individuals or groups in Ethiopia

5. Which aspects of the programme do you think were most important for you in bringing benefit to WV Ethiopia?

6. Which aspects of the programme caused the greatest difficulties within Ethiopia?

7. What changes could we make to bring more benefit or to reduce problems in future such programmes?

8. Do you have any other comments about the Ethiopia Connection, or the way the programme was run?

Thank you again for all your support.

Warm regards,

Susan.

Appendix XIV

Ethics committee application

MUHEC Application

Applicant:

Name: Susan Warren
Department: Department of Learning and Teaching, College of Education
Contacts: [redacted]
Status: MEd student
Employer: World Vision of New Zealand,
Private Bag 92078,
Auckland.

Project:

Title: The world at our doorstep: Evaluating an internet-based Social Studies programme.
Status: MEd thesis
Funding: The programme itself is funded by World Vision of New Zealand, World Vision Australia, and an anonymous private donor. I am employed by World Vision of New Zealand, and will be conducting some of the research during work time, as part of my normal duties.
Clinical Trial Status? No.

Attachments:

None

Supervisor:

Name: Mark E. Brown
Department: Department of Learning and Teaching, College of Education

Signatures:

Applicant:

Supervisor:

Date: January 2001

OFFICE USE ONLY
Received: **Decision:**

Application Content

1. DESCRIPTION

1.1. Justification

Every year, as part of my development education work at World Vision of New Zealand, I run an internet-based Social Studies programme for New Zealand schools. The programme links students with aid workers and young people in a developing-world country. To date we have focused on a community in rural Malawi (July 1998), a street children's center in Ulaanbaatar, Mongolia (March 1999) and child families in Rwanda (March 2000). The latter two programmes have provided an additional education focus for the Forty Hour Famine fundraising event, with students learning about and communicating with some of the very people they were raising money for.

The thesis research will aim to evaluate the above internet-based programme, in order to document the impact of the programme in the areas of its objectives, and to improve future internet-based development education programmes - specifically, to increase their acceptability to teachers and students; their effect on student learning; their impact on student and teacher attitudes; and their effect on the success of the Forty Hour Famine.

I realize that there could be some potential conflict of interest in my evaluating a programme that I design and organize. However, the research fits closely with my work objectives – the internet programmes need to be thoroughly evaluated so that we can improve them, and so that we can justify their continued funding. At the same time, my involvement in the programme allows me access to figures on participation, and should open the door in some schools to allow me to evaluate student learning and teacher perceptions of the programme. Thus, the research is both feasible and worthwhile for me because of my involvement in the programme I will be evaluating.

1.2. Objectives

To document the effects of the programme, and to improve future programmes, by answering the following research questions:

1. What do teachers and education leaders want from a programme like this?
2. How extensively is the programme used (how many classes, schools, students – and what range of ages, subjects and computer/internet access)?
3. To what extent does the programme design and process fit with current educational theory?
4. What are the learning outcomes, in terms of knowledge, understandings, skills and attitudes (especially attitudes to people in need, interest in development topics, and in Social Studies in general)?
5. What were the outcomes for World Vision, in terms of registrations and dollars raised for the Forty Hour Famine, and in relationships built with schools?
6. What were students' perceptions of the programme, both positive and negative?
7. What were teachers' and education leaders' perceptions of the programme?
8. What were the perceptions of the programme among World Vision Ethiopia staff, and Ethiopian community members?

1.3. Procedures for recruiting participants and obtaining informed consent

Teachers and education leaders for interview will be chosen from among known education leaders and from among the teachers who have identified themselves as contact teachers at selected schools which have registered for the 2001 programme (selected by the researcher to ensure accessibility, and a range of experience with the programme). Each person selected will be approached by telephone (or fax or e-mail if unavailable by phone), given a verbal explanation of the purpose of the interview, and asked if they would be prepared to participate. Those who agree will be able to select a time to suit them. At the interview, they will be shown the Information Sheet, and asked again if they are happy to participate. If they decide not to, the interview will not proceed. Their verbal agreement, and continuance of the interview, will be taken as consent.

Feedback forms for both teachers and students will be available on the Internet site, for those who wish to fill them in there. Hard copies of both forms will also be faxed to all participating schools, with a request to teachers to fill out the teacher feedback form, and to copy the student forms and ask their students to fill these out. An explanation of the purpose will be at the top of the form. Return of the forms is optional, but to increase return rate, a draw will be held with one person from each group receiving a small prize (World Vision T-shirt for student, educational resource for teacher).

Two or three schools will be chosen for classroom observation, assessment of student learning, student interviews and attitude scales. These schools will be chosen by the researcher to represent a range of age groups (from Year 5 to Year 10) from among the highly involved schools in the Central Auckland area. In each case, the Contact Teacher will be contacted, and then if they are open to the school's involvement, a letter and Information Sheet will be sent to the Principal, requesting permission. If they agree, all students in the classes to be observed will receive an Information Sheet and a Consent Form to take home, and return with consent or refusal, signed by the student and parents. Those students who do not wish to be observed, or whose parents object (by indicating their refusal of consent on the form), will not be included in observation records. If there are more than three such students in any class, a different class will be selected for observation. Those students who refuse permission will still take part in the classroom activities, and the assessment procedures, which will be part of their classroom learning. However, non-consenting students' assessment activities will not be marked by an outside marker, or included in the analysis. Only those students whose parents give written consent will take part in the attitude scales and student interviews.

1.4. Procedures in which research participants will be involved

a. Structured interviews with a small group of teachers and education leaders, before the programme begins, to find out what they see as important in a programme of this type – what do they look for, what would they see as their definition of success?
b. Data collected from registration forms (eg number of schools, number and age of students, geographic spread).

c. Automatic website counts, which measure the numbers of visits by day, page (on the site), country of origin, length (in minutes) and browser type.
d. Survey sent to teachers registered for the programme, for them to give their written feedback on it.
e. Survey of students who participated in the programme, to get their written feedback on it.
f. Classroom observation to see any ways in which the programme as used in schools differs from the programme designer's expectations, and/or from teachers' expectations and desires.
g. Teacher-administered assessment activities, with marking centralized or moderated – in selected schools only, where teachers agree to use a standardized assessment.
h. Attitude scale administered to a random selection of consenting students within schools which agree to this.
i. Analysis of attitudes revealed in questions and messages on the internet site
j. Analysis of figures for donations collected by participating and non-participating schools, on the World Vision 20 and 540 Hour Famine. (These figures are collected automatically and analysed in a database.)
k. Interviews of students in high-participation schools to find out their perceptions of the programme.
l. Interviews of teachers in high-participation schools to find out their perceptions of the programme
m. E-mail survey of World Vision staff who have been involved in the programme (in New Zealand, Ethiopia, and Australia), including their observations of community perceptions.
n. De-brief interview with traveling teacher re observed problems and benefits (to the community and to World Vision Ethiopia) from the programme.

1.5. Procedures for handling information and material produced in the course of the research including raw data and final research report(s)

Only the researcher and two assistants (who will be helping with running the programme) will see the raw data from interviews, feedback forms, observations and attitude scales. Both assistants will be well briefed about the need for absolute confidentiality about the identity of individuals and schools.

Classroom assessments will be analysed by the researcher and possibly also viewed by one or both assistants (again, after briefing on confidentiality). Some may be sent to other participating teachers for moderation.

Findings in the form of aggregated data, selected quotes etc will be reported in the final thesis, again with no individuals or schools identified. Schools and individuals quoted will be described by attributes and code name only. Copies of the thesis will be handed in for marking, and then held in the Massey University Library, the supervisor's personal records, and the researcher's personal records.

1.6. Procedures for sharing information with Research Participants

Summaries of findings including quotes and some aggregated data will be sent to all registered schools once analysis is complete. No school or individual will be identified in these summaries. Those schools which participate in the observations and assessments will also receive a full breakdown of the results from their schools, as compared to the aggregate, plus a verbal report of the study as a whole to the principal, staff involved, and (if the principal agrees) to students at an assembly or similar.

1.7. Arrangements for storage and security, return, disposal or destruction of data

Notes from interviews, returned feedback forms, observation data, attitude scales and other raw data relating to schools or individuals (other than classroom assessments) will be kept in the researcher's files while it is analysed and then destroyed once the report has been finalised. Once checked and analysed, classroom assessments will be returned to the teachers concerned and held as part of normal school records.

2. ETHICAL CONCERNS

2.1. Access to Participants

Observing students and teachers in classrooms brings inevitable ethical problems. Participants have a right to be informed of the purpose and extent of observation, to decline to be observed if they so wish, and to not be disadvantaged should they decline. All members of classes observed will need to be provided with an information sheet outlining this part of the research, and they will need to give their permission in advance. Similar permission will first need to be sought from the schools and teachers involved.

2.2. Informed Consent

Participants have a right to be informed of the purpose and extent of observation, to decline to be observed if they so wish, and to not be disadvantaged should they decline. All members of classes observed will need to be provided with an information sheet outlining this part of the research, and they will need to give their permission in advance. Similar permission will first need to be sought from the schools and teachers involved. The assessments used to evaluate student learning will need to be agreed to by the teachers involved. They will be free to agree to do this, or to refuse. Those students whose learning is evaluated will need to consent in writing to my seeing their assessments, and only those students who consent will be included in this measure.

2.3. Anonymity and Confidentiality

The fact that all users of the internet are recorded, and that programme designers have access to figures on the numbers of visits, down to the pages visited, may not be widely known, so there is potential invasion of privacy here. However, no individual visitor can be identified. Students' questions are visible on the internet site, and this is made clear when they submit them, so they are public documents and there should be no invasion of privacy in analysing these questions.

2.4. Potential Harm to Participants

There will be some disruption to classes observed, and to individuals who give interviews, fill out questionnaires, and take part in assessments. The research will need to be designed to keep this disruption to a minimum – working around interviewee's schedules, keeping forms brief, and integrating some assessments into normal classroom activities where possible. The benefits of the research to the participants (in gaining accurate information on their own learning) and to the wider community (in improving a widely used educational programme) justifies this small disruption.

2.5. Potential Harm to Researcher(s)

None anticipated.

2.6. Potential Harm to the University

None anticipated.

2.7. Participant's Right to Decline to Take Part

Schools, teachers and students who are approached to participate in any way in the evaluation will have the right to refuse consent. Those who decline consent will not be included in observations or measures. However, such students will still be able to take part in classroom programmes, including those assessments which are integral to this, so they will not be disadvantaged in any way. Schools which do not consent to be part of the evaluation will still be able to use the programme.

2.8. Uses of the Information

Participants' right to know the results of research will be fulfilled through a newsletter to all schools which take part in the Internet Connection, outlining the main conclusions from the evaluation. Those schools which take part in the assessments of student learning and attitudes will also receive aggregate data for their school and for the total group.

2.9. Conflict of Interest/Conflict of Roles

There is a potential conflict of interest in my evaluating my own programme. I will need to ensure triangulation of data where possible, and checking by third parties (of questions, data methods, and analysis of results) to try to reduce bias. By asking a wide variety of people about their perceptions of the programme, I can also include views other than my own, and check my own data-based evaluations (which could be biased by my choice of questions and data collection processes) against the views of a range of participants and stakeholders. Even after this, I will still need to make the conflict clear in writing up the research.

2.10. Other Ethical Concerns

No further concerns anticipated.

3. LEGAL CONCERNS

3.1. Legislation

No legal concerns anticipated.

3.2. Other Legal Issues

None.

4. CULTURAL CONCERNS

We will need to include feedback from World Vision Ethiopia staff who are involved with the programme. However there is a risk that they may say only what they think we want to hear, because in many African cultures it is not acceptable to criticize anyone who could be considered to be of higher social standing. Because they are aware that the funding for their projects comes from New Zealand, and because we are predominantly European (with all the history of colonialism affecting people's attitudes), the Ethiopian staff may, consciously or unconsciously, think of us as socially superior, and may therefore be unwilling to make negative comments. Distance and finance make it difficult to develop a close relationship with these staff members, but we will make every effort, through e-mail contacts and through the traveling teacher, to show that we value their expertise and knowledge, that we consider them to be at least equal colleagues, and that we genuinely want to learn from their views, both positive and negative. The traveling teacher will also be able to give us feedback from what she observe of the impacts of the programme in Ethiopia, in case the staff do not feel they can report all their problems and negative experiences.

5. OTHER ETHICAL BODIES RELEVANT TO THIS RESEARCH

5.1. Ethics Committees

None.

5.2. Professional Codes

None.

6. OTHER RELEVANT ISSUES

None.

Appendix XV

VisionEd newsletter July 2001

World Vision

VisionEd

Susan Warren and Alison Squires,
World Vision of New Zealand, Private Bag 92078
Auckland, fax (09) 309-3166, phone (09) 377-0879,
e-mail education.nz@worldvision.org.nz

July 2001

The World Vision New Zealand Education Newsletter

Welcome

to the first issue of VisionEd, a development education newsletter for New Zealand educators. We'll aim to send VisionEd three or four times a year. Please feel free to copy it, pass it to friends, request further copies and generally share it with anyone you think might be interested. If you've received this from a friend and would like your own copy in future, just fill in the enclosed coupon and we'll be happy to add you to our growing mailing list.

Ethiopia Connection

Many of you were among the 297 schools (with nearly 20,000 students) who were involved with our Internet programme in March, which followed NZ teacher Sharon Crosbie as she travelled in Ethiopia. It was a busy month for all involved, but from what we've heard, it looks like it generated some rich learning experiences for both teachers and students.

Some highlights for us:

- Sharon's story about her visit to the Ayele family, "stars" of the *Food for Tomorrow* video, when kids all over NZ realised "they've never seen TV before!"
- The class in Turkey that decided they wanted to donate an ox. Later, we all got to see Ayele proudly ploughing with his new full team of oxen.
- Four days when Ethiopia's entire connection with the Internet failed, and Sharon valiantly continued to answer questions by fax (so everything had to be re-typed at both ends).
- The NZ student who asked Admassu, Ayele's son, to name her cat. So now there's a black kitten in Auckland named "wurro", the Amharic equivalent of "kitty".

Share your best ideas

Seen a great development education resource recently? Tried a new unit or activity that went really well? Heard about an event others might be interested in? Share your news with us and we'll pass it on in next term's VisionEd.

Thanks for the Feedback

Thanks to the 53 teachers and 176 students who sent in feedback forms for the Ethiopia Connection. Your comments are a huge encouragement, and they'll be invaluable as we plan next year's Connection. Some things we learnt from you:

- You love the quality of the video, the interactivity of the website (especially being able to "talk" directly to people overseas) and the close integration between the kit, the Internet unit, the poster, the video and the site.
- Like us, you were frustrated with the low quality of sound in the first audioconference – we'll make a real effort to ensure better lines next time.
- Most of you only used part of the programme. That's fine – we provide plenty of choice to cater for differing access to technology, and varied needs.
- You'd like more puzzles, educational games, quizzes and other "fun stuff" – and your students agree. We'll try to accommodate you, as budget allows.
- You're overwhelmingly "very willing" to take part in a similar programme again – so watch out for next year's programme (see page 2).
- Some of you asked for an Asian focus next year – and you'll get your wish.
- Almost all of you had very positive comments – "Excellent – enjoyable, purposeful and realistic".
- Your students report having "learnt lots" and "really liked it", especially the chance to interact with real people as they learn.
- You report some very positive changes in students' attitudes over the course of the programme, with the link to the Famine often listed as important in achieving this.

Congratulations to the winners of the feedback draw, teachers Sandra Rolls and Louise Goodwin from St Matthews Primary, who won WV materials of their choice, and student Samantha Baker of Tapora School, who won a WV T-shirt.

Next Year's Internet Programme

Planning for next year's Internet Connection is now well underway. So, you ask, tell us – where is it? What's the theme? How do we get involved? Well – here's the sneak preview.

Country: India

Focus: The January 2001 earthquake – how it affected people's lives, how they, their communities, local and international aid workers, media and the NZ public responded, how people are beginning to rebuild their lives.

Dates: March 1st to 31st 2002

Levels: Year 3 to 11 Social Studies

Resources:

- An internet site with background info on India, the earthquake, and disaster response plus daily stories from a NZ teacher travelling there, questions, discussions, messages to children etc
- Weekly audioconferences and faxes for registered schools
- A free unit for registered schools
- a free poster with mini-unit for anyone who'd like one
- A video for loan or purchase on two families in the earthquake zone
- A folder to buy, with information, family stories, photos, activities & teacher notes.

How to Register:

Send us your contact details and we'll send a registration form when they're available. Alternatively look out for the form in the mail and in education journals during term 4.

Free Stuff

This term we have two items to give away:

The Streets are our Home posters on street children in Mongolia. Ask for as many copies as you'd like.

Noom's Team Trial development game, set in Thailand – great for teaching co-operation. Single copies only.

Request your free stuff direct to us (NOT your local retailer) on the green coupon. See the yellow and blue flyers for details of other related material you can purchase.

Finding Ajuna

We came across a great new resource recently. It's a warm, impartial and true account of a young Kiwi who sets out to find his World Vision sponsored child in Tanzania. Designed for form 1-4 reluctant readers, the book would also be great for social studies at senior primary through secondary levels. We've enclosed an order form from Marathon Books, in case you'd like to order it.

Chance of a lifetime

Did you watch with envy as Sharon Crosbie travelled in Ethiopia, running this year's Connection? Did you think "I could do that"? Would you like the chance to try?

Later this year we'll be advertising for a teacher to travel to India in February/March next year, sending back stories about what they see, answering children's questions, setting up communication with local families, and holding weekly audioconferences for NZ schools.

They'll need to give their time free, but all their travel and accommodation expenses will be covered. It's VERY hard work, but a rewarding experience for the right person. If you have superb writing and photographic skills, can communicate well to children, have some experience travelling in the developing world and relate well to people of other cultures, this could be you. Watch for the ad in the Gazette during October, or send us your contact details now and we'll let you know when applications open.

See you in Christchurch?!!!

We always look forward to the national Social Studies Conference in September as a chance to stay up to date, catch up with old friends and meet new people who are as passionate as we are about helping kids understand their world. If you're going, do come and say "hi" at our display stand, or at one of our seminars. If you haven't registered yet, all the details and forms are at: http://www.exevents.co.nz/events.htm.

If you go to Conference, you might like to stay on an extra few days for the GlobalNet conference – a chance for teachers and students to explore issues of sustainability. See the enclosed flyer for details.

Have you heard...

... about the NetGuide Schools Web Challenge? Students create a website on any topic they've studied. There are some great prizes, and the winning sites will be hosted on NetGuide's site for a year.

What an opportunity for social action – getting kids to spread the word about a development issue they've learnt about! How about encouraging some of your students to enter with a development-related topic – say, food security in Ethiopia? You'll find details of the competition on page 11 of the July 9th Gazette, or you can ask for more information from NetGuide. webchallenge@netguide.co.nz

References

Alach, A, Powell, R., Powell, T., & Ross, J. (1999). E-mailing Eketahuna. *Computers in New Zealand Schools, 11 (1),* 32-35.

Alcock, M., Carrell, C., & Ward, P. (1999). Intercultural teaching and learning: opportunities on the internet. *Computers in New Zealand Schools, 11 (2),* 25-30.

Ames, C. (1992). Classrooms: goals, structures and student motivation. *Journal of Educational Psychology, 84,* 261-271.

Anderson, G., & Arsenault, N. (1988). *Fundamentals of Educational Research.* London: The Falmer Press.

Anderson, J. R., Reder, L. M., & Simon, H. A. (1996). Situated learning and education. *Educational Researcher, 25 (4),* 5-11.

Anthony, G. (1996). Active learning in a constructivist framework. *Educational Studies in Mathematics, 31,* 349-369.

Baldwin, R., & Baldwin, S. (2001). *Keeping them on the edge of their seats: Student attitudes and motivation in social studies.* Paper presented at the NZFSSA Conference, Christchurch. (Personal communication)

Barr, H., Graham, J., Hunter, P., Keown, P., & McGee, J. (1997). *A position paper: Social studies in the New Zealand curriculum.* Hamilton: University of Waikato.

Bellan, J.M., & Sherman, G. (1998). Actual and virtual reality: Making the most of field trips. *Social Education, 62 (1),* 35-40.

Bereiter, C., & Scardamalia, M. (1985). Cognitive strategies and the problem of "inert knowledge". In S.F. Chipman, J.W. Segal and R. Glaser (Eds.), *Thinking and learning skills.* Hillsdale, NJ: Erlbaum.

Bereiter, C., & Scardamalia, M. (1989). Intentional learning as a goal of instruction. In L.B. Resnick (Ed.), *Knowing, learning and instruction: Essays in honour of Robert Glaser.* Hillsdale, NJ: Erlbaum.

Berson, M.J. (1996). Effectiveness of computer technology in the Social Studies: A review of the literature. *Journal of Research on Computing in Education, 28 (4),* 486-499.

Biggs, J. B. (1991). Students learning in the context of school. In J. B. Biggs (Ed.), *Teaching for learning: The view from cognitive psychology.* Hawthorn, Vic.: Australian Council for Educational Research.

Boekaerts, M. (1997). Self-regulated learning: A new concept embraced by researchers, policy makers, educators, teachers and students. *Learning and Instruction, 7 (2),* 161-186.

Bogdan R.C., & Biklen S.K. (1998). *Qualitative research for education: An introduction to theory and methods.* NeedhamHeights, Massachusetts: Allyn and Bacon.

Bouma, G.D. (1996). *The research process.* Melbourne: Oxford University Press.

Braun, J.A., Fernlund, P., & White, C.S. (1997). *Technology tools in the Social Studies curriculum.* Wilsonville, Oregon : Franklin, Beadle and Assoc.

Brooks, J. G., & Brooks, M. G. (1993). *In search of understanding: The case for constructivist classrooms.* Alexandria, VA: Association for Supervision and Curriculum Development.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher, 18 (1),* 32-42.

Brown, M.E.,, & Ryba, K. (1996). The information superhighway: A teacher's guide to the internet. In Lai K-W (ed.), *Words have wings - Teaching and learning with computer networks.* Dunedin: Otago University Press.

Carr, M. (1998). A project for assessing children's experiences in early childhood centres. In M. Carr, H. May and V. Podmore, *Learning and teaching stories: New approaches to assessment and evaluation in relation to Te Whariki.* Wellington: Institute of Early Childhood Studies, Victoria University of Wellington.

Carr. W., & Kemmis, S. (1983). *Becoming critical: Knowing through action research.* Victoria: Deakin University Press.

Chalmers, A.F. (1976). *What is this thing called science?* St Lucia: University of Queensland Press.

Chen, H-T. (1990). *Theory-driven evaluations.* Newbury Park: Sage Publications.

Clark, J. (1997). *Educational research: philosophy, politics, ethics.* Palmerston North: ERDC Press.

Clark, R.E. (1991). When researchers swim upstream. *Educational Technology, 31 (2),* 34-40.

Cole, M. (1991). On putting Humpty Dumpty together again: A discussion of the papers on the socialisation of children's cognition and emotion. *Merrill-Palmer Quarterly, 37 (1),* 199-208.

Cole, M., & Wertsch, J. V. (1996). Beyond the individual-social antimony in discussions of Piaget and Vygotsky. *Human Development, 39,* 250-256.

Cooper, G., & Cooper, G. (1999). *More virtual field trips.* Englewood, Colorado: Libraries Unlimited.

Crook C. (1994*). Computers and the Collaborative Experience of Learning.* London and New York: Routledge.

Cullen, J. (1991). Metacognition and the young learner. *Australian Journal of Reading, 14,* 339-348.

Dale, J. (2000). Reflections on a global issues study. *Canadian Social Studies 34 (3),* 55-55.

De Corte, E. (1990). Learning with new information technologies in schools: Perspectives from the psychology of learning and instruction. *Journal of Computer Assisted Learning., 6,* 69-87.

De Vaus, D.A. (1991). *Surveys in social research.* Sydney: Allen and Unwin.

Dexter, S.L., Anderson, R.E., & Becker, H.J. (1999). Teachers' views of computers as catalysts for changes in their teaching practice. *Journal of Research on Computing in Education, 31 (3),* 221-239.

Dweck, C.S. (1986). Motivational processes affecting learning. *American Psychologist 41,* 1040-1048.

Elliot, A. (1999). Internet use in schools: Legal and ethical issues. In K.W. Lai (Ed.) *Networking: Teaching, learning and professional development with the Internet.* Dunedin: University of Otago Press.

Elliot, J. (1991). Changing contexts for educational evaluation: The challenge for methodology. *Studies in evaluation 17*, 215-238.

Fletcher, S., Hovell, S., & Wilson, J. (2000). *World Vision on-line project – Rwanda Family Connection.* MEd assignment, Otago University (Personal communication).

Flockton, L., & Crooks, T. (1998). *Social studies assessment results 1997: National Education Monitoring Report 8.* Dunedin: University of Otago.

Glaser, R. (1991). The maturing of the relationship between the science of learning and cognition and educational practice. *Learning and Instruction, 1,* 129-144.

Good, T. L., & Brophy, J. (1995). *Contemporary educational psychology* (5th ed.) New York: Longman.

Grabe, M., & Grabe, C. (1996). Cognitive learning and technology tools. Chapter 2 of *Integrating technology for meaningful learning.* Boston: Houghton Mifflin Co.

Graham, S., Donaldson, P., & Sommerville, P. (1997). Putting the curriculum on ice. *Computers in New Zealand Schools, 9 (2),* 3-8.

Green, T. (2001). Tech talk for sopcial studies teachers. *Social Studies, 92 (4),* 177-179.

Groundwater-Smith, S., & White, V. (1995). *Improving our primary schools: Evaluation and assessment through participation.* Sydney: Harcourt Brace & Co.

Harris, J. (1998). Curriculum-based telecollaboration: Using activity structures to design student projects. *Learning & Leading With Technology, 26 (1)*, 6-15.

Hartley, S.F. (1982). Sampling strategies and the threat to privacy. In J.E. Sieber (Ed.) *The ethics of social research: surveys and experiments.* New York: Springer Verlag.

Hatano, G. (1993). Time to merge Vygotskian and constructivist conceptions of knowledge acquisition. In E. A. Forman, N. Minick & C. A. Stone (Eds.), *Contexts for learning: Sociocultural dynamics in children's development.* New York: Oxford University Press.

Hiebert, J., Carpenter, T. P., Fennema, E., Fuson, K., Human, P., Murray, H., Olivier, A., & Wearne, D. (1996). Problem solving as a basis for reform in curriculum and instruction: the case of mathematics. *Educational Researcher, 24 (4),* 12-21.

Hill, B., & Morris, R. (1993). The school newspaper as a vehicle for learning computer skills: a prospective study on an intermediate school. *Computers in New Zealand Schools, 5 (2),* 11-16.

Holzbert, C. (2000). The best of the web for teachers. *Instructor, 110 (2),* 84-90.

Isaac, S., & Michael, W.B. (1981). *Handbook in research and evaluation.* San Diego: EdITS.

Jadallah, E. (2000). Constructivist learning experiences for social studies education. *The Social Studies, September/October 2000,* 221-225.

Johnson, D.W., & Johnson, R.T., (1986). Computer-assisted cooperative learning. *Educational Technology 26 (1),* 12-18.

Jones, A., & Mercer, N. (1993). Theories of learning and information technology. In Scrimshaw P. (ed.), *Language, Classrooms and Computers.* London: Routledge.

King, A., Staffieri, A., & Adelgais, A. (1998). Mutual peer tutoring: Effects of structural tutorial interaction to scaffold peer learning. *Journal of Educational Psychology, 90 (1),* 134-152.

Lai, K.W. (1992). Computers in education: A learner-centred approach. In Lai K.W. and McMillan B. (eds.), *Learning with computers: Issues and applications in New Zealand schools.* Palmerston North: Dunmore Press.

Lai, K.W. (1993). Teachers as facilitators in a computer-supported learning environment. *Journal of Information Technology for Teacher Education, 2 (2),* 127-137.

Leask, M., & Younie, S. (2001). Communal constructivist theory: information and communications technology pedagogy and internationalisation of the curriculum. *Journal of Information Technology for Teacher Education, 10 (2),* 117-133.

Leinhardt, G. (1992). What research on learning tells us about teaching. *Educational Leadership, 49 (7),* 20-25.

Marshall, H. H. (1996). Implications of differentiating and understanding constructivist approaches. *Educational Psychologist, 31,* 235-240.

Martorella, P.H. (1993). Technology and the social studies – or: Which way to the sleeping giant? Theory and Research in Social Education, 21 (1), 511-514.

Massey University Human Ethics Committee (2000). *The code of ethical conduct for teaching and research involving human subjects.* http://www.massey.ac.nz/~muhec/code2.html

Matthews, M. (1995). *Challenging New Zealand science education.* Palmerston North: Dunmore Press.

Mehan, H. (1989). Microcomputers in classrooms: Educational technology or social practice? *Anthropology and Education Quarterly, 20*, 4-22.

Mevarech, Z.R. (1993). Who benefits from computer-assisted instruction? *Journal of Educational Computing Research, 9*(4), 451-464.

Ministry of Education (1997). *Social Studies in the New Zealand Curriculum.* Wellington: Learning Media

Moss, D., Amodeo, A., Bullowa, J., & Detjen, T. (1997). The SAX-ophone project – connecting classrooms around the world. *Learning and Leading with Technology, 25 (3)*, 49-51.

Mostyn, B. (1985). Content analysis of qualitative research data. In M. Brenner, J. Brown and D. Canter (Eds.) *The research interview, uses and approaches.* London; Orlando: Academic Press.

New Zealand Association for Research in Education (1998) *Ethical Guidelines.*

Nicholson, S, Fletcher, S., & Hovell, S. (2001). Electronic field trips: A constructivist learning experience? *Computers in New Zealand Schools, 13 (3),* 3-9.

Norris, N. (1990). *Understanding educational evaluation.* London: Kogan Page.

Owens, W.T. (1997). The challenges of teaching social studies methods to preservice elementary teachers. *The Social Studies, 88 (3),* 113-120.

Palincsar A. S., & Brown A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 1 (2),* 117–175.

Paris, S.G., & Turner, J.C. (1994). Situated motivation. In P.R. Printrich, D.R. Brown and C.E. Weinstein (Eds.), *Student motivation, cognition and learning: Essays in honour of Wilbart J. McKeachie.* Hillsdale, NJ: Erlbaum.

Paris, S.G., & Winograd, P. (1990). How metacognition can promote academic learning and instruction. In B.F. Jones and L. Idol (Eds.), *Dimensions of thinking and cognitive instruction.* Hillsdale, NJ: Erlbaum.

Parlett, M., & Hamilton, D. (1972). Evaluation as illumination: A new approach to the study of innovatory programmes. In D. Hamilton et al (Eds.) *Beyond the numbers game.* Basingstoke: Macmillan.

Perkins, D.N. (1992). *Smart schools: Better thinking and learning for every child.* New York: The Free Press.

Phillips, D.C. (1995). The good, the bad and the ugly: The many faces of constructivism. *Educational Researcher, 24 (7),* 5-12.

Pintrich, P.R., & Schrauben, B. (1992). Student's motivational beliefs and their cognitive engagement in classroom academic tasks. In Schunk, D.H. and Meece, J.L. (Eds.), *Students' perceptions in the classroom.* Hillsdale, NJ: Erlbaum.

Popper, K.R. (1963). *Conjectures and refutations.* London: Routledge and Kegan Paul Ltd.

Powney, J., & Watts, M. (1987). *Interviewing in educational research.* London: Butler and Tanner.

Pressley, M., & McCormick, C. B. (1995). *Advanced educational psychology for educators, researchers and policymakers.* New York: Harper Collins.

Probert, E., & Beath, B. (1996). K12Net in New Zealand Schools. In Lai, K-W (ed), *Words Have Wings: Teaching and Learning with Computer Networks.* Dunedin: University of Otago Press.

Ramasubramanian L., & Logie J. (1999). Information technology use in the secondary classroom: Implications for participatory environmental education. *New Zealand Journal of Geography, 108,* 23-30.

Ratner, H.H., & Stettner, L.J. (1991). Thinking and feeling: Putting Humpty Dumpty together again. *Merrill-Palmer Quarterly, 37 (1),* 1-26.

Rice, M.L., & Wilson, E.K. (1999). How technology aids constructivism in the social studies classroom. *The Social Studies, 90 (1),* 28-33.

Richardson, V. (1994). Constructivist teaching: theory and practice. *Teaching, thinking and problem solving, 16 (6),* 1-7.

Riel, M., & Fulton, K. (2001). The role of technology in supporting learning communities. *Phi Delta Kappan, 82 (7),* 518-23.

Rogoff, B. (1993). Children's guided participation and participatory appropriation in sociocultural activity. In R.H. Wozniak and K.W. Fischer (Eds.), *Development in context: Acting and thinking in specific environments.* Hillsdale, NJ: Lawrence Erlbaum.

Rosenshine, R. (1995). Advances in research on instruction. *Journal of Educational Research, 88,* 262-268.

Rottier, K.L. (1995). If kids ruled the world: ICONS. *Educational Leadership, 53 (2),* 51-53.

Rushby, N. (1984). Styles of computer based learning. In Terry C. (ed.), *Using microcomputers in schools.* London: Croom Helm.

Ryba, K. (1989). An ecological perspective on computers in special education. In Brown R.I. and Chazen M. (eds.), *Learning difficulties and emotional problems.* Calgary: Detselig Enterprises.

Ryba, K . (1991). Promoting social interaction and thinking skills in the computer environment. *Computers in New Zealand Schools, 3* (1), 5-12.

Ryba, K., & Anderson, B. (1990). A strategies approach to effective thinking and learning. Chapter 1 of *Learning with computers: Effective teaching strategies.* Oregon: ISTE.

Savoie, J. M., & Hughes, A. S. (1994). Problem-based learning as classroom solution. *Educational Leadership, 52 (3),* 54-57.

Sewell, A., & Brown, M. (1999). Computers and social studies education: Towards a meaningful partnership. *The New Zealand Journal of Social Studies, 11 (1)* 3-9.

Shaughnessy, J. M., & Haladyna, T. M. (1985). Research on student attitude toward social studies. *Social Education, 49 (8),* 692-695.

Soler, J., & Trewern, A. (1998). Using computer technology for reflective inquiry in Social Studies. In P. Benson and R. Openshaw (Eds.), *New Horizons for New Zealand Social Studies*. Palmerston North: ERDC Press.

Spicer, J.I., & Stratford, J. (2001). Student perceptions of a virtual field trip to replace a real field trip. *Journal of Computer Assisted Learning, 17*, 345-354.

Stainfield, J., Fisher, P., Ford, B., & Solem, M. (2000). International virtual field trips: A new direction? *Journal of Geography in Higher Education, 24 (2),* 255-62.

Stake, R.E. (1967). The countenance of educational evaluation. *Teachers College Record 68 (7),* 523-540.

Stake, R.E. (1980). Program evaluation, particularly responsive evaluation. In W.B. Dockrell and D. Hamilton (Eds.) *Rethinking educational research.* London: Hodder and Stoughton.

Taylor, R. (1980). Introduction. In Taylor R.P. (ed.), *The Computer in the school: tutor, tool, tutee.* New York: Teachers College Press.

Trewern, A. (1996). The internet: what's in it for me and my students? In Lai, K-W (ed), *Words Have Wings: Teaching and Learning with Computer Networks.* Dunedin: University of Otago Press.

UNICEF. (2002). *The state of the world's children 2002.* Geneva: United Nations Publications.

Vanfossen, P.J. (2001). Degree of internet/www use and barriers to use among secondary social studies teachers. *International Journal of Instructional Media, 28 (1),* 57-75.

Willis, A. (1999). .com: Content-rich commercial websites. *Social Education; Arlington, 63 (3),* 157-159.

Wineburg, S.S. (1989). Remembrance of theories past. *Educational Researcher, 18 (4),* 7-10.

World Bank. (2001). *World Bank Development Report 2000/2001.* New York: Oxford University Press.

Yates, G. C. R., & Chandler, M. (1991). The cognitive psychology of knowledge: Basic research findings and educational implications. *Australian Journal of Education, 35,* 131-153.