

**Participants' perceptions of
Computer-Mediated Communication: A case study of
the Global Teenager Project**

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Submitted in partial fulfilment of the requirements for the degree of

Master of Education

Information Technology in Education

Of

Rhodes University

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April 2003

Abstract

The study outlines general trends evident in Computer-Mediated Communication (CMC), participants' perceptions and the promotion of CMC across the curriculum in a South African Secondary School. This case study focuses on the Global Teenager Project (GTP), which started as a bi-national pilot project in April 1999 between secondary schools in South Africa and the Netherlands. The study sets out to investigate how well the GTP can be incorporated into the existing school curriculum through the teacher-researcher's direct involvement in facilitating the project at a school where she is a full-time teacher. The main purpose of the study is to review existing literature to establish how collaborative learning could be achieved through a CMC environment between teenagers from various countries based on the research done at an international level and link the practice at this school to the existing international trends.

It was found that the GTP has great potential in enhancing collaborative learning within various learning areas at Nathaniel Nyaluza Secondary School (NNSS). Despite the usefulness of the GTP and the overwhelming enthusiasm learners displayed, its success at NNSS depended on the motivation of teachers and how easily the activities of the GTP could be incorporated within day-to-day teachers' activities.

Key words: Collaborative Learning; Computer-Mediated Communication; Constructivism; Information Communication Technology; Qualitative Research; Synchronous and Asynchronous Communication; Theories of Learning; Learning Circles.

Acknowledgements

I would like to thank the following:

- ❖ Professor Cheryl Hodgkinson for she inspired and encouraged me in this research. Her guidance and belief in me helped me accomplish this study. I was privileged to have her as my supervisor. She was always there for me including weekends and providing coffee from her home when work seemed to reach a dead end. She made the Education computer laboratory at Rhodes University available to NNSS learners to continue with project work when electricity at their school was disconnected.
- ❖ All learners at NNSS who participated in the GTP with such enthusiasm. I learnt something new every time I worked with them in a computer laboratory and without their involvement, this study would not have been possible.
- ❖ My colleagues for the part they played in supporting the GTP at NNSS.
- ❖ Pam Marshall and Jongi Klaas for checking the grammar and editing the document, working with them contributed to my growth and development.
- ❖ My former student Daniel Babikwa for his careful checking of the final draft in order to ascertain that everything was in place. Who thinks that your student won't overtake and be able to teach you? Daniel is completing his PHD studies at Rhodes University.
- ❖ The National Research Foundation (NRF) for the financial contribution towards my studies.
- ❖ The International Institute for Communications Development (IICD) and SchoolNet SA initiating this international project.
- ❖ Lucent Technologies for initiating the Khula Project through which 4 PCs were donated to our school and became the initial foundation for CMC at NNSS.
- ❖ 3 COM for sponsoring Planet Project in collaboration with SchoolNet SA for their generous award of 16 “state-of-art” computers to our school in appreciation of enthusiastic learners’ entries from NNSS.
- ❖ Centre of Excellence-Rhodes University that sponsored Internet at NNSS, with the support of Alfredo Terzoli and Guy Halse for the constant monitoring of the Internet, without them, this project would have been difficult to accomplish.
- ❖ Brian Stone for his loving support, encouragement and for taking some of the photographs.
- ❖ Finally but not least to my brother Ambrose Nigomani and my daughter Judith Natukunda to whom this thesis is dedicated.

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List of Abbreviations

ARPANET	Advanced Research Program Agency-Networks
CD	Compact Disc
CMC	Computer-Mediated Communication
CSILE	Computer-Supported International Learning Environments
DARPA	Defence Advanced Research Program Agency
GTP	Global Teenager Project
ICT	Information Communications Technologies
IDRC	International Development Research Centre
IEARN	International Education And Resource Network
IICD	International Institute for Economic Development
IRC	Internet Relay Chat
NNSS	Nathaniel Nyaluza Secondary School
OBE	Outcomes Based Education
SchoolNet SA	School Networks of South Africa
SciFest	Science Festival
SIDE	Social identity model of deindividuation effects
IT	Information Technologies
WorLD	World Links for Development
WWW/Web	World Wide Web

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Chapter 1

Introduction

I would like more learners to be given a chance to participate in the Global Teenager Project (L 6.29).

Introduction

1.1 Background to the study

Center for Applied Special Technology (CAST) (1996) maintains that to succeed in their future workplaces, children need to become independent, critical thinkers by knowing where and how to find information, organise and evaluate it, and then effectively express their new knowledge and ideas. In order to achieve this CAST (1996) claims that children should work in teams. The development of Computer-Mediated Communication (CMC) has provided a technology to enable online collaboration between learners around the world.

The International Educational and Resource Networks (IERN) has been encouraging the use of Computer-mediated Communication (CMC) for collaborative learning in schools for a number of years. Their aim is to build a network of communities of learners within schools on an international level IERN. (2001). Following the approach recommended by IERN, the International Institute for Communications Development (IICD) in the Netherlands planned and developed the Global Teenager Project (GTP). The GTP was launched in South Africa by SchoolNet SA in 1999 through a bi-national pilot between South Africa and the Netherlands (SchoolNet SA 1999:1).

The intention of the GTP is to foster two-way communication and exchange of information between young people in developed and developing countries; to exploit the cultural and geographical diversity between nations; to communicate through Information Communication Technologies (ICT) that can be integrated within the school curriculum and to work towards closing the digital divide between developed and developing countries” (SchoolNet SA 1999:1).

Nathaniel Nyaluza Secondary School (NNSS) in Grahamstown was one of the five schools selected in South Africa to be part of the pilot GTP which started in March 1999. NNSS has

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approximately 800 learners and 23 teachers and offers a range of subjects including Xhosa, Afrikaans and English; Physical Science, Biology, Agricultural Science, Home Economics and Mathematics; Geography and History; Business Economics, Arts and Culture and Accounting. The teacher-researcher is the Business Economics teacher at NNSS, and was one of the teachers invited to participate in the GTP. At the time NNSS had only four stand-alone computers with no Internet access or e-mail. As the teacher-researcher was concurrently studying at Rhodes University, she was able to make use of her student e-mail facilities to mail her learners' contributions and receive responses from learners in the same group.

In July 1999 the Computer Science Centre of Excellence hosted by the Computer Science Department at Rhodes University provided the sponsorship for the first Internet connection at NNSS. From then on teachers and learners at NNSS were able to acquire their own web-based e-mail accounts (e.g. Yahoo, hotmail or webmail), which they could use until May 2001 when NNSS was allocated a domain name through SchoolNet SA.

The GTP supports the notion of integrating CMC into the existing school curriculum. To this end the programme works through the existing learning areas. The implementation of this integrated CMC programme at NNSS depended on the willingness of the subject teacher to incorporate CMC into their lessons. At NNSS the GTP involved the Business Economics teacher, an Arts and Culture teacher and the Mathematics teacher. Although the GTP is still in progress, this study will report on the implementation of the GTP at NNSS for the three-year period, 1999-2001, during which five different classes participated in the project (Table 1.1).

Table 1.1 Learner participation in the GTP at NNSS

Learning areas	1999 Mar- Jun & Sept-Dec	2000 Mar- Jun & Sept-Dec	2001 Mar- Jun & Sept-Dec	Total number of learners
Business Economics	24	44	18	86
Mathematics	40	-	-	40
Arts and Culture	-	-	10	10
TOTAL				136

1.2 Research goals

The research goal is gain insight into how the collaborative online learning offered by the GTP was integrated into the existing curriculum. The investigation into this email and Internet-based collaborative project addressed the following questions:

- How do teachers feel that the collaborative online GTP was integrated into the existing school curriculum?
 - How do the teachers use the project within the existing school curriculum?
 - What are the difficulties in incorporating collaborative online team projects within the curriculum?
 - How can teachers have input into the GTP?
 - Do the teachers perceive that the project enhances the pupils' learning? Why?
 - What technical difficulties do the teachers experience with the GTP?
 - Are there any additional demands on the workload of the teacher? If so, what are these?
- How do the learners feel that the collaborative online GTP was incorporated into their normal school work?
 - How do the learners feel that the topics of the online collaborative project relate to their normal school work?
 - What do the learners perceive as the benefits of being involved in the GTP?

- Do the learners perceive that the project enhances their learning? Why?
- Are there any additional demands on the workload of the learner? If so, what are these?

1.3 Methodology

This is a qualitative case study undertaken within an interpretivist framework (Greene 1994) in an attempt to elicit how the GTP is experienced by two stakeholder groups, namely the teachers and the learners.

In a case study the researcher “typically observes the characteristics of an individual unit - a child, a clique, a class, a school or a community” (Cohen & Manion 1994:106). In this case study the researcher observed the characteristics of the five different classes involved in the online GTP. Cohen and Manion (1994:106) explain that the “purpose of such observation is to probe deeply and to analyse intensely the multifarious phenomena that constitute the life cycle of the unit with a view to establishing generalizations about the wider population to which the unit belongs”. Stake (1994) defines different types of case studies that reflect the different purposes for studying various cases. As this study aims to provide insight into online collaboration, a particular phenomenon, it can be classified as an instrumental case study (Stake 1994).

This research sets out to elicit how the GTP supports the various learning areas through the use of:

- **document analysis** (Hitchcock & Hughes 1995:226) of e-mail correspondence between coordinators for specific data on the GTP and document analysis of the IICD and SchoolNet SA websites for the policies and procedures for conducting the GTP;
- **questionnaires** to elicit the learners’ opinions of the GTP;
- **participant observation** (Cohen & Manion 1994:107) of the various classes by the teacher-researcher; and

- **in-depth interviewing** (Talylor & Bogdan 1994:76) of four learners and one teacher.

1.4 The value of the study

As the study reports on the initial developments of the use of ICT and specifically of CMC at NNSS, it is hoped that the study will lay the foundation for further research that will focus on the needs and expectations of online collaboration by teachers and learners at NNSS. Furthermore as the study focuses on the development of GTP in particular, it may be potentially valuable in informing other GTP participant schools, SchoolNet SA and the IICD on how to best implement future GTP initiatives. Moreover it may provide useful indications for successfully integrating online collaborative projects in existing school curricula in South Africa and in other developing countries.

1.5 Overview of the research report

The subsequent chapters elaborate on the investigation of the GTP at NNSS.

Chapter 2: Literature Review

The literature review contextualizes this study within the field of Computer-Mediated Communication (CMC) and links it to online collaborative teaching and learning. This is done by exploring the theoretical underpinnings of CMC; the advantages and disadvantages of CMC and a specific model of CMC known as the “Learning Circles” on which the Global Teenager Project is based.

Chapter 3: Research Methodology

This chapter provides a description of the research methodology adopted in this study by detailing the research perspective and paradigm, the research approach, data collection methods, data analysis and the research process.

Chapter 4: Findings

Having elicited the respondents' perceptions, this chapter presents the research findings according to the following categories:

- How well the GTP related to and supported the school curriculum at NNSS
- How the GTP enhanced or hindered teaching and learning at NNSS
- The technical and organisational difficulties faced by GTP participants at NNSS
- Factors determining future participation in the GTP by participants at NNSS
- The impact of the GTP on the teachers and learners at NNSS
- The obstacles or barriers to implementing the GTP at NNSS

Chapter 5: Conclusions and Recommendations

This chapter draws final conclusions from the previous chapters, describes the limitations of the research and provides final recommendations.

Chapter 2

Literature Review

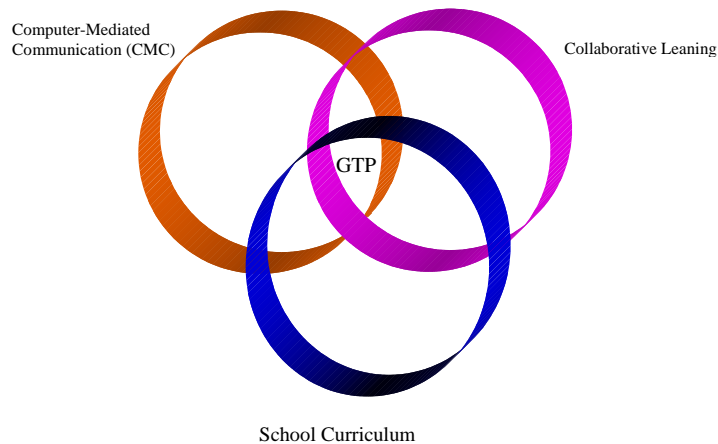
I think that my teacher gained something that she did not know before and she transplanted her information to us as students. (L 7.11).

Literature Review

2.1 Overview of chapter

According to Bell the literature review involves “reading what other people have written about your area of interest, gathering information to support or refute your arguments and writing about your findings” (Bell 1993:33). This chapter attempts to review the theoretical foundations, research, and current policy on Computer-Mediated Communication (CMC) in the context of senior secondary schools both in South Africa and internationally. The advantages and disadvantages of CMC will be explored in order to situate the participation in the Global Teenager Project (GTP), which is investigated in this study. The Figure 2.1 indicates the focus of the study.

Figure 2.1 The focus of the study



The potential influence of collaborative learning through computer-mediated communication on the school curriculum is investigated.

2.2 Definition of terms

Before addressing the theoretical aspects of CMC, it would be valuable to define what is understood by the term Computer-Mediated Communication. There is general uniformity in defining this term (Romiszowski and Mason 1996, Wolz, Palme, Anderson, Chen, Dume, Karlsson, Laribi, Männikkö, Spielvogel and Walter 1997, Rice and Love 1987 and Hefzallah 1999). Romiszowski and Mason (1996:438) define Computer-Mediated Communication as a term used for “a variety of systems that enable people to communicate with each other by means of computers and networks”. In an attempt to define CMC Wolz, *et al* (1997:1) state:

... the term is now used to cover a wide range of tools that are being adapted to a diverse set of learning environments. In this broad definition, CMC refers to any form of interpersonal communication that uses some form of computer technology to transmit, store, annotate, or present information that has been created by one or more participants. Using this definition, CMC tools include email, conferencing, groupware, chat rooms, desktop videoconferencing, and Internet-based audio applications.

The definition of CMC provided by Romiszowski and Mason (1996) will inform this study, but CMC will be limited to the use of computer networks that act as communication and collaboration tools enabling learners to exchange **electronic mail** on a common topic of discussion and to engage in **Internet Relay Chat**.

Electronic mail, (abbreviated, as “email”, “E-mail” or “e-mail”) is a means of communication where text is transmitted and stored on a server until called or retrieved by the addressee. The operations include sending, storing and receiving information.

Internet Relay Chat (IRC) refers to participants who log onto the network at the same agreed time, post messages to each other and engage in synchronised conversations that will appear on every participant's computer screen.

Collaboration refers to “the fact that a group of people work together on a task and have a common goal” (Gros 2001:440). McConnell (2000:9) provides a similar view that cooperative learning involves working together on the same task or issue in such a way that it promotes individual learning through the process of collaboration in groups. In collaboration the groups have a common goal.

2.3 Theoretical underpinnings of CMC

Collaborative learning theory underlies the use of CMC in education. Kanselaar, Erkens, Jaspers and Schijf (2000:2) emphasise that “new technology has expanded the concept of collaboration to include for instance, long-distance collaboration (via the Internet) and computer supported collaboration, ... to systems aiding students singly, to systems enabling an entire classroom collaboratively to build their own knowledge base”. The power of technological support to aid collaborative learning in a larger educational context enables what Kanselaar *et al* (2000) call computer-supported international learning environments (CSILE) where students are members of knowledge-building communities. Due to the fact that knowledge is constantly changing, Lankshear, Peters and Knobel (2000) claim that the digital age is changing many of the existing educational practices. Gros (2001) and McConnell (2000) both write about three theories forwarded in favour of collaborative learning as compared to learning individually: constructivism, cultural-historical theory and situated cognition.

2.3.1 Constructivism

Firstly, the “constructivist-learning model is often contrasted to the transmission or objectivist, learning model, which views the teacher as the source of knowledge and students as passive receptacles of this knowledge” (Haward, McGee, Schwartz and Purcell 1990:456).

Cronjé (2000) has adapted the assumptions underlying constructivist learning proposed by Merrill (cited in Cronjé 2000):

- Learning is **constructed** from the experience of the learner.
- Interpretation is **personal**. There is no shared reality. Individual learners gain different interpretations of the same material, based on their own previous knowledge, experience etc.
- Learning is an **active process** whereby experience is converted into knowledge and skills.
- Learning is **collaborative**, which means that multiple perspectives enhance it.
- Knowledge is situated in **real life** and that is where learning should take place.
- Testing should be **integrated** with the task.

In CMC learners are not passive receptacles of knowledge, but actively construct knowledge through the social interaction with other learners while the teacher takes on the role of a facilitator.

2.3.2 Cultural-historical theory

Gros (2001) maintains that Vygotsky's theory of cultural historical psychology also underlies collaborative learning. He argues that "each internal cognitive change ... is due to casual effect of a social interaction" (Gros 2001:442). He further claims that "interactions between peers, on the one hand, and peers and adults, on the other, are crucial as they promote learning" (Gros 2001:442). Kitade (2000:163), Warshshauer, (1995) and Boschmann (1995) claim that CMC not only provides opportunities for interaction in foreign language environments but also facilitates collaborative and comprehensive interaction which many scholars believe promotes second language acquisition. Thus CMC aims at promoting peer collaboration and can be applicable in environments where learners are second language English speakers as they are in this study.

2.3.3 Situated cognition

The theory of situated cognition views learning as a process of entry into community of practice. The main goal is "to learn to use tools as practitioners use them, a student, like an apprentice, must enter that community and its culture" (Brown, Collins, and Duguid, cited in Gros 2001:442). Furthermore, Gros (2001) claims that students learn how they can apply their knowledge to new situations, and the acquisition of knowledge is thus more practical in nature. CMC creates opportunities that prepares learners to work in an environment that is culturally diverse, greatly influenced by technology and is constantly changing. In order to situate the study in its constantly changing environments, a brief overview of the historical development of CMC is provided.

2.4 History of CMC

Jones (1998) and Romiszowski and Ravitz (1997) link the history of CMC with the development of the Internet in the 1960s and early 1970s when the US defence and several research universities, via the Defence Advanced Research Program Agency (DARPA) linked computers for military defence purposes. The resulting Advanced Research Program Agency Networks (ARPANET), allowed access to each site's computer not only for communication but also for research purposes. Electronic mail superseded what researchers were accustomed to: the post office, fax and telex, all of which represented individual messages from one person to another. The birth of ARPANET allowed information from one person to be shared by many users. Thus mailing lists were created. This allowed one person to mail one message to a central point (server) from which that message "bounced" or "reflected" or "duplicated" to others who subscribed to the list. Eventually, the lists became specialised to particular topics, and the terms "bulletin board" and "mailing list" came to have some interchangeability.

2.4.1 Tools commonly used by CMC

Computer conferencing

In Computing Conferencing, "one or more computers support teleconferencing, an arrangement in which access, by multiple users, to a common database is mediated by a controlling computer" (Collis 1996:60). This is synchronous or in real time so users have to make an arrangement for the real time desktop conferencing. Computer conferencing

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was used once, at the start of the project, when an official launching session was arranged at the 1820 settler monument during SciFest 1999.

Mailing lists

Mailing lists provide a forum for discussion groups. Only subscribed members can post messages to the lists using the address provided during subscription. Teachers' registration for the GTP allows the coordinators to enter a teacher's email address into a mailing list. This enables the group to post and receive responses.

Newsgroups

Newsgroups allow an online forum for discussion of related topics, accessible by a newsreader. Some newsgroups allow postings or messages from anyone, while others are moderated (postings are screened). In the GTP the webboard held postings from all groups and allowed postings only from the email addresses registered with GTP's mailing list

Internet Relay Chat (IRC)

Donath, Karahalios, and Viégas (1999) explain chat systems as:

Synchronous online discussion, in which a number of people can simultaneously communicate with each other by typing, the messages each person types appear on the screens of all the participants. The first multi-user chat system, Internet Relay Chat (IRC), was developed in 1988; previously, synchronous on-line communication had been limited to two participants. Chat systems have become a popular alternative means of communication. Donath *et al* (1999:1)

Most chat systems are purely text-based: the participants type messages, which are then displayed sequentially on each person's screen. Hefzallah refers to chat rooms as

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“Keyboard Conversation” (Hefzallah 1999:63). Hefzallah further explains that the messages on the screens convey two types of information. One is the content of the message, the other is the fact of the participant's presence. In a text-based chat, presence is manifest only when one is actively messaging: silence is indistinguishable from absence. This, Hefzallah claims, has a strong impact on the style of discourse, for participants often feel compelled to constantly post messages so that the others will not forget them. Learners at NNSS feel the pressure to improve their typing speed and slow ones often felt inadequate. Veerman, Andriessen and Kanselaar point out that in “effective synchronous collaboration, students share a focus on the same issues and negotiate about meaning of each other’s submitted information” Veerman, Andriessen and Kanselaar (2000: 270). Learners gain a skill of giving a response within a short time.

The GTP at NNSS has so far experienced the use of IRC, computer conferencing, mailing lists, newsgroups and e-mail as the main communication channels during the project.

2.4.2 History of SchoolNet SA

SchoolNet SA is the major provider of CMC in South African schools. According to SchoolNet’s 1998 annual report (SchoolNet SA 1998:1), from 1993 –1998 a number of provincial school networks were established: Western Cape School’s Network, Pretoria Education Network, Gauteng School’s Network, Eastern Cape School’s Network and KwaZulu Natal School’s Network. In November 1997 SchoolNet SA was established to link all the provinces that already had networks. SchoolNet SA is independently funded and works in partnership with: Telkom Foundation, Tintana, Netday, 3 COM, Internet

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Solutions, IICD, ThinkQuest, Internet Service Providers Association, Softline Limited, SUN Microsystems, UUNET, World Links, Microsoft, Notel Networks, IEARN, Think Quest and Department of Education. SchoolNet SA's activities and functions include:

- Implementing ICT development projects throughout South Africa, including the Global Teenager Project;
- Developing provincial school networks and supporting connectivity and training projects;
- Developing school mail, an e-mail service for schools countrywide;
- Promoting collaboration among educators and learners, through projects;
- Creating an awareness of the use of ICTs in education through press articles, conferences, seminars, electronic media and the Internet;
- Developing private sector and donor partnerships in support of ICTs in education and
- Conducting and facilitating Net Day, the technical solutions project that involves refurbishing of computers and providing schools with low cost solutions including computers and Internet access (SchoolNet SA 2000:28)

Early in 1998, the World Links for Development (WorLD) Programme was the first formal project adopted by SchoolNet SA. WorLD is a programme of the World Bank's Economic Development Institute. A WorLD subcommittee was established to deal with the implementation of collaborative projects in the North West, KwaZulu Natal, Eastern Cape and Gauteng. Computers were donated to the participating schools. In July 1998, the International Development Research Centre (IDRC) and Open Society Foundation provided additional funding for SchoolNet SA. The head office for SchoolNet SA is currently hosted in International Development Research Centre (IDRC) building in Johannesburg (World Bank Institute 2001:1).

With the World Links for Developments in place, SchoolNet SA was in a position to promote collaboration in high schools on International level and subsequent projects were

properly designed, planned and implemented based on the International Education and Resource Network's (IEARN) school program of collaboration set up and developed by Margaret Riel (Riel, 2001a). Under this umbrella, NNSS became part of SchoolNet SA's implementation of the GTP pilot project in March 1999. Before exploring the GTP, some of the major CMC research findings are discussed.

2.5 Research into the use of CMC

This research overview highlights both potential advantages and disadvantages of CMC.

2.5.1 Advantages of CMC

CMC offers, but is not limited to, the following advantages: multi-way communications, no restrictions on distance or political boundaries, international learning, exploration of cultural, geographical and language diversity and exposure to working with different technologies. These advantages are discussed in detail below.

There has been general agreement on the principal advantages of CMC. Braak (2001), Ahern and El-Hindi (2000), Collis (1996), Romiszowski and Mason (1996), Postmes, Spears and Lea (1998) point out that it offers **multi-way communications** between all the participants of a group who may receive the same message and respond to messages from all the participants. There is flexibility between synchronous and asynchronous communication. **Distance and political boundaries** between participants is not an issue and does not pose any additional costs. Thus CMC can promote opportunities for communication that may not be otherwise possible. Ahern and El-Hindi, highlight that

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“within a CMC discourse all voices have equal force and participation is all at the same status” (Ahern and El-Hindi 2000:385).

In the schooling environment, Collis (1996:277) discusses some of the following benefits for teachers involving learners in projects that are CMC based.

- Projects involve a collection of partners that are not usually part of the teacher’s day-to-day world. This collection may involve telecommunications network providers, university researchers, industrial partners and other contributors such as technical personnel and other partners in the country that teachers do not normally have contact with.
- Both technical and human resources that are not available ordinarily to the teacher are introduced to the classroom.
- Projects conducted through CMC may encourage professional development; stimulating and motivating some teachers to return to university for graduate study or take the initiative to sustain some aspect of the project activity in the school after the project and its temporary resources are gone.
- CMC makes learning international, learners and teachers are able to explore cultural and geographical diversity beyond their own countries.
- CMC enables learners to explore multiple intelligences (e.g. learners are exposed to a variety of point of views).
- Children are inclined to learn and are able to develop whenever interaction is in place.

In addition, Braak (2001), Appel and Mullen (2000) and Colomb and Smutis (1996) praise CMC as a way of increasing the natural use of language. They point out that when using email in support of language learning many elements of spoken language appear in written messages and so they suggest that development of oral skills may take place as learners are exposed to features which may be useful in a spoken context later. Thus, not only do written skills develop through the use of a word processor and spell checker, but other skills such as being able to reflect on written messages and to develop communication skills. It is interesting how learners can point out spelling and grammatical errors as well

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as argue for a particular point of view in discussion. Learners' writing highlights the differences and similarities in opinions that learners can reflect upon and debate about.

An additional advantage of CMC is that learners are exposed to working with **different technologies** as Grey (1999), Rafaeli and Sudweeks (1997), Perrone, Repenning, Spencer and Ambach (1996) suggest. These authors have emphasised how learners search and receive information, that in order to reply to other learners' questions, research on the Internet may be inevitable. In addition, Porter (1997) mentions that learners are exposed to working with different technologies, such as computers' CD-ROM drives, video tape recorders, video conferencing and printed media and points out that these learners receive a broad picture of many media and technologies. It is a requirement of IEARN that schools produce a GTP's publication, which allows learners to acquire additional technological skills plus synthesise the knowledge they have acquired. Unfortunately NNSS has not yet considered making a project publication mainly due to the financial position of the school and the fact that project work is considered as an extra curriculum activity.

During the making of a publication, Grey highlights that "email format is easy to adapt, repurposed in a word processor or forwarded without loss of quality as compared to other forms of communication such as a fax message" (Grey 1999:97). In the GTP a teacher receives messages, and forwards them to all the learners who will all get the same quality message. Learners then study the message without the teacher's influence in interpreting it. Contrasting opinions concerning the message can then be discussed in the class. Alternatively, information collected and gained can be published on individual learner's

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web pages. In this way learners are not only being information users but creators of information. Perrone *et al* suggests that:

In such efforts learners begin to take advantage of the WWW as a medium, rather than the computer as a tool. Students learn not only to use computer-based tools to build and house their Web pages, but in the process, they begin to think of the computer as a medium for expression, communication, and learning. Their pages have an existence and an accessibility that transcends the boundaries of the school and introduces the notion of an unknown audience. All of a sudden, the student must not only consider what s/he wishes to put on a homepage, but also to whom the information will go. The effective use of WWW and CMC within the classroom as part of the curriculum is still elusive (Perrone *et al* 1996:2).

In relation to Perrone's assertion above, our experience at NNSS confirms that the resources enable the learners to take advantage of the WWW. The NNSS server has a capacity to house over 2000 users with 10 megabytes of storage space each, allowing users to have a home directory, email account and to host a web page. So far 30 out of 800 learners have paid R 50 for a computer literacy course that introduces them to the basics of web page development. However, with the absence of an official post of a computer / ICT educator, the effective use of WWW and CMC within the classroom will indeed remain elusive and the digital divide at the same site remain remarkably wide.

Despite the above dissatisfaction, CMC can trigger interaction and people can reply around the world (Ingram, Hathorn and Evans 2000). Wilson (2000) describes how CMC can build communities of learners while Rafaeli and Sudweeks state that:

Interactivity is a process-related, variable characteristic of communication settings. Like face-to-face communication, computer-mediated communication has the capacity of enabling high interactivity. One postulated outcome of interactivity is engagement. Interactivity can lead to sociability. We therefore propose that the concept of interactivity is a likely candidate to help in explaining how groups, especially CMC groups, stick together (Rafaeli and Sudweeks 1997:3).

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Clearly another advantage of CMC is **collaboration** of learners with others. Koo (2001), Light, Nesbitt, Light, and White (2000) and Riel (2000) emphasise collaboration as having a shared learning objective that is properly designed and planned with a timeline to follow. In collaboration learners take care and consult friends to edit their work because they want to show themselves in a good light to the rest of the world. Since learners and teachers receive many answers to the question they posed, they are confronted with multiple perspectives on an issue. This encourages learners to develop critical perspectives on the topic related issues.

All these advantages are formulated from an International perspective and will have to be revisited during this case study at NNSS to see to what extent some of these advantages have been experienced. International research has focused on finding ways of “how best to capitalise on the advantages and how best to minimise the disadvantages of the medium” (Appel and Mullen 2000:297). They further reflect on research done by Appel, *et al* (cited in Appel and Mullen 2000) that indicates that a great deal of potential is not always realised in an email environment. This is due to a number of pedagogical shortcomings inherent in the medium, which are outlined below.

2.5.2 Disadvantages of using CMC

The disadvantages of CMC that will be discussed here fall into three main areas. Firstly, CMC takes place in **a project form, which may never become cohesive**. Secondly, there are problems relating to **insufficient training, the high cost factor and the over reliance of CMC on technology**. Ertmer, Addison, Lane, Ross, and Woods (1999) call the second

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problems *first order barriers*. The final disadvantage that requires mentioning is that of teachers' attitude, a problem that can lead **to teachers' reluctance to participate**. A possible reason behind this reluctance is the time factor as the use of technology poses additional demands on teachers' workloads that are already overloaded. Ertmer *et al* (1999) call these *second order barriers*. These areas of disadvantages will be discussed in more detail below.

Firstly, Collis (1996) indicates that in secondary schools much of CMC takes place in a project form, an activity that is both time consuming and disruptive to regular teaching. Thus extra time has to be created particularly at NNSS where projects are done after school so that learners can make the best contribution in CMC. A related difficulty is that other schools tend to pose questions that are loosely or not linked at all to the on-going curriculum theme at school. This problem at NNSS confirms Collis' (1996) claim that the projects may never become cohesive or productive.

Despite their good intentions, the different members of the collaborative teams may never really find a common ground ... Also teachers can come to resent the feeling that they are "being used as guinea pigs" for what they sometimes perceive as promotional interests of some of the sponsoring partners. Furthermore, the goals of leaders and participants may be mixed and unclear, the leaders or facilitators may be more of a figurehead bringing in support for the projects to its start but not part of the day-to-day management of the project. For instance the leaders may aim at presumed benefits of being the future while participants have different agendas that are not in harmony. The teachers' agenda – to enrich her class without disrupting it – is often the least realised (Collis 1996:278).

From a South African point of view, the teachers who embrace international collaboration may find unnecessary to get involved in regional or national collaboration. Without local

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collaboration, the developing countries remain as mere recipients from the international donors.

In addition to lack of cohesion in school projects, Appel and Mullen found that “learners involved in projects wrote short messages frequently which may lead to lack of coherence and cohesion in projects” (Appel and Mullen 2000:295). On the other hand, some learners involved in chat sessions feared making typing errors that may be interpreted as “careless or incompetent” (Lea and Spears cited in Hancock and Danhan 2000: 435). They claim that this leads to some learners communicating frequently but without cohesion while others fail to fit in the spontaneous, real time talk.

Secondly, insufficient training, the high cost factor and the high pace of technological changes pose barriers to ICT development in schools. As Rice (1987:71) points out that the cost factor extends to the need for teacher training, supplies, overhead data projector, and the set up of a suitable telecommunications system, software, support staff and even furniture. Ertmer *et al* (1999) refer to these as *first order* barriers to technology integration and described them as being extrinsic to teachers. Learning from schools in industrialised countries, Gordin, Gomez, Pea and Fishman (1996) surveyed American schools in 1995 and reported that access of learners to the Internet was important for the success of building communities in K-12 classrooms. Difficulties of providing equitable access to the Internet were described as follows:

- 50% of schools had some access to the Internet but not all schools that had Internet provided it for student use.

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- Of this 50%, 70 % of the schools allowed the students' access to the Internet.
- Even in the same school they found a gap between “info-rich” and “info-poor” as demonstrated by the statistics they provided. They reported that in schools with a large proportion of poor students, only a few will be likely to have access to the Internet at school, while in schools serving wealthier populations all students will have access to the Internet with or without a teacher e.g. after school.

This can be compared to Smith's (2001) findings, concerning factors affecting ICT usage in Western Cape schools and Heuklman's (1993) findings that identified the frustrations resulting from lack of access to the available resources. Furthermore, Smith found that there were too few computers in each school and computer usage was more for administrative support than for learners. Particularly schools from formerly disadvantaged backgrounds that received computers as donations found it too expensive to maintain security systems and insurance premiums. Other schools, which had funding, split 50:50 between commercial donors and parents, were better resourced. The influence of the cost factor varied from school to school as some formerly disadvantaged schools completely depended on donor resources while others planned to acquire more computing resources through parents' funding. These cost factors mean that it is difficult to expand and provide for ICT requirements that are favourable for all learners to have access. At the time of writing, this difficulty is confirmed at NNSS where 30 out of 800 learners have quality access to computing resources after having paid R 50 to contribute to computer literacy classes conducted after school. Hodgkinson (1999) points out the benefits should outweigh the hefty cost factor associated with ICT and that schools should plan to have resources used for the benefit of all learners.

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In addition, these obstacles or barriers to CMC have been examined by Porter (1997) who warns of the dangers to CMC that is resource-based and technology driven. In particular, she highlights the dangers of what she terms “technophobia” and “technocentrism” – teachers’ fear of technology and teachers’ delusion that technology can cure all education’s ailments. She believes that these are equally dangerous obstacles to CMC’s success.

In addition to these problematic attitudes, Porter (1997) also points out how a lack of technical support at the school often means that minor technological problems remain unfixed until support can be called. Our experience at NNSS is that the server sometimes hangs after running the Internet service for a couple of weeks or after electricity interruptions over night or on weekends thus returning mail to the senders as the server is not responding. This creates a gap in the emails received. Fortunately there is a way out of this problem, which is to access the web board hosted by IICD, which acts as a back up for all GTP project mail.

Thirdly, the biggest barrier to CMC and integration of ICT into the school curriculum is insufficient training that may lead to teachers’ reluctance to participate in such demanding projects. While learners may be affected, teachers also find projects demanding. Braak (2001) emphasises that a big concern is where teachers have to adapt to a magnitude of changes. The speed at which technology is evolving can have an adverse effect on teachers’ attitudes. Braak further notes that the adoption of new technologies and methods requires time from both teachers and schools and that the rapid evolution in technology is

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costly to some institutions and leads to a high rate of obsolete expensive technologies in institutions. Projects demand that a teacher checks email almost daily. At NNSS a teacher who dropped out of CMC was discouraged after one week when she found the mailbox full of 45 new unread messages! There was no way she imagined that she would cope, so she politely apologised to the school coordinator who had introduced her to the project and withdrew.

The reluctance of teachers to participate may have to do with difficulties in relationships in online communication. Parks and Floyd writing from the sociological point of view state that:

Relational cues emanating from the physical context are missing in CMC, as are nonverbal cues regarding vocal qualities, bodily movement, facial expressions, and physical appearance. ... This leads to some people interpreting on-line relationships as shallow, impersonal, and often hostile. They assert that only the illusion of community can be created in cyberspace. ... On the other side are those who argue that computer-mediated communication liberates interpersonal relations from the confines of physical locality and thus creates opportunities for new, but genuine, personal relationships and communities. ... One vision is of relationships lost, while the other is of relationships liberated and found (Parks and Floyd 1996:1-2).

This reluctance may also be due to the fact that these projects do not count in the final assessment of learners at NNSS. Ertmer *et al.* (1999) call these *second order barriers* that are intrinsic to teachers. “The longer the teachers teach, the more likely it is that they have developed patterns and styles of teaching and student interaction that fit their own circumstances and the more they will need convincing that they should change what they see as appropriate pedagogy for themselves and their subject area” (Ertmer *et al.* 1999:55). While many first order barriers might be reduced or eliminated by securing additional

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resources and providing computer training, these second order barriers that affect teachers are difficult to eliminate.

These second order barriers can be identified in Jones' (2001) contribution about the experiences of principals. She suggests that the effectiveness of educational technology is determined by teachers' readiness or willingness to use it, not by its mere presence in the classroom. She observed that it takes time for teachers to comfortably use computers and the Internet. She argues that time is one of the most frequent barriers to teachers using computers and the Internet. To overcome this problem she created a flexible schedule to allot time for technology workshops on workdays as opposed to after hours or over weekends, which were not favourable times for the majority of the teachers on her staff. This created time to allow the teachers time for learning, she feels that those teachers who still remain uncomfortable need one-to-one help from a school's technology coordinator who acts as a mentor. In support of Jones's experience, Beavers (2001) poses the question:

Do you oversee a school whose hardware, software and networking are a state-of-art but, sadly, not used to their potential? It takes a new vision of professional development to enable teachers to take full advantage of computer technology in teaching and learning. ...and technologies have been used only sporadically by teachers, despite the high expectations from trainers, reformers and teachers themselves (Beavers 2001:43).

Beavers (2001), Jones (2001), Dawes (2001), Pearson (2001) and Morrison, Lowther, and DeMeulle (1999) further emphasise that effective staff development is essential so that teachers taking advantage of telecommunications technologies can interact with other teachers, take online courses, and participate in online discussion groups, email lists, and chat rooms. The leadership that principals give their teachers is one of the most important

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factors affecting the effectiveness of technology in the classrooms. “Principals who are the role models understand and appreciate the technology that is used in their schools enhance the use of technology in the classroom. These principals can provide the added support and guidance teachers are looking for” (Jones 2001:37).

Porter (1997) further emphasises that most teachers teach in a classroom with no computer technologies available on an ongoing basis. She notes that where there are computers available at school these are usually clustered in a computer lab. This situation may not be conducive to access to technology for lesson preparation. In other words, not all teachers will find it easy to adapt to the new technologies. At NNSS computers are on the 3rd floor, a venue that is rather far from teachers and not user-friendly for all teachers. This led to having two computers placed in the staff room for teacher preparation. These computers are still not connected to the Internet that could support GTP or any form of collaboration.

Hawkrige, Jaworski and McMahon (1990:273), discussing teachers’ views on computers’ relevance to their teaching categorised teachers into seven groups:

- 1 FAVOURABLE – those teachers who were “impressed and enthusiastic”
- 2 CRITICAL –those teachers who were “positive about computers but critical of how they could be used”
- 3 WORRIED- those teachers who were “positive about computers but worried about using them”
- 4 UNFAVOURABLE- those teachers who “held negative views about computers and teaching”
- 5 ANTAGONISTIC – those teachers who were “insecure about, very afraid of or against computers”
- 6 INDIFFERENT – those teachers who were “ non-committal”
- 7 UNINITIATED – those teachers who had “no perception of or ideas about using computers in school”

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At NNSS teachers fall into each of the above categories. We have teachers who have rejected computers or online projects as irrelevant to their teaching, and most teachers are indifferent or non-committal to any form of computer work including the GTP. Although eight teachers have been trained through donor projects such as Khula that donated the first four computers to NNSS (Smith and Jacobs 1998), four of these eight have never taken learners to the computer laboratory, let alone themselves. Ironically they ask other teachers to type documents for them!

The curriculum has no provision for collaboration at the moment. Although time for project work has to be created, possibly after school, teachers do still need time to prepare for the next day of work. Hawkrige, *et al* (1990), observed the link between curriculum, assessment methodology and training in third world schools and found that “computer education is sometimes separated from the ‘real’ work of schools in that students undertaking computer training were not assessed in the formal sense”. Providing the example of Kenya and India, where teachers and students were engaged in extra-curricular study of computers, they found that “the extra-curricular computer study lies outside the formally recognised and examined curriculum may lead the stakeholders to regard the innovation as something peripheral and not of great significance” (Hawkrige, *et al* 1990:86).

One approach to overcome the obstacles is to employ computer coordinators at school and district levels as suggested by Strudler (1996), so that resources already placed in schools lead to successful use. Strudler (1996) recommends that ICT coordinators at district levels would help in on-site staff development. This could lead to collaborative problem- solving. This takes us back to the issue of the cost. Clearly the problems and the solutions to developing computer usage in schools are complex and multi-layered (Hawkrige, *et al* 1990:86)

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Mostert's (1992) study indicated the need for a specialised technology teacher and/or support staff at schools that have acquired computing resources.

In an attempt to overcome some of these disadvantages and highlight the benefits of CMC, this project made use of structured Learning Circles to manage the online collaboration.

2.6 Learning Circles

“Learning Circles” is a concept that is used to develop collaboration between groups with common interests. For example, Sian and Marilyn (1999) and Hiebert (1996) use action Learning Circles for students in health care training. They describe the use of Learning Circle as a strategy to increase critical-thinking skills that develop through collaboration and cooperative learning. Riel (1996b: 2) explains that the Learning Circle concept as “drawn from two contexts, one from school and one from the business community”. In a primary school she explains that a “circle time” is:

a period of a day when students in a class share information with one another. One of the goals of “circle time” is to develop oral communication skills in face-to-face groups. ... a “quality circle” in the business community refers to participatory management practices. In these work situations the usual boundaries between workers and managers are reduced as they operate together as a team (Riel 1996b:2)

This cooperative approach to decision making describes the way teachers work with each other in a Learning Circle to develop educational activities to extend student knowledge and critical thinking skills. Teachers are both facilitators and co-learners. Thus “the Learning Circles are a structure for organising projects” (Riel 2001b). According to Riel, the Learning Circle model lays emphasis on writing across the curriculum and focuses on

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multi-discipline themes. She further emphasises that it encourages collaborative learning through computer-mediated communication. Learning Circles have been defined by Riel, (1996a, 1996b) and Administrator IICD (1999a) as task-oriented groups of 6-9 classrooms that plan and implement curriculum-based projects. Riel (1996b) and Administrator IICD (1999a) describe a Learning Circle as a highly interactive, shared task in which projects created in each class become the work of the Circle. The shared task is to create a Learning Circle publication to collect or summarize the Circle Projects. The GTP has thus been structured on the Learning Circles concept that was developed by Margaret Riel. The GTP Learning Circles are “organised bi-annually on a ten-week period and start in September to December and March to June” (Administrator IICD 1999b: 1).

2.6.1 The Learning Circles as a community

Joined for the length of a session (normally 10 weeks), learners usually accomplish projects defined by their chosen curriculum theme. As (Riel 1996a: 221) has indicated, “what happens online is just a report of what learners have accomplished. In their real time classroom discussions, and the research in their local environment, learners become experts on their school and community, and share their knowledge with learners elsewhere. Virtual and real classrooms become inseparable”. Sharing knowledge in this way gives the learners a sense of learning in a community.

Riel further explains that Learning Circles are organised around the concept of an electronic school rather than just a project and elaborates how the real time classroom supports collaboration.

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Learning Circle classes are grouped into small geographically diverse clusters with specific curricular themes. They are virtual communities with no fixed locations or time zones. What happens online is only half the story. The other half is the real time classroom discussions, research, writing, proofreading the draft copies thus editing as teachers and learners become experts on their school and community. The class becomes a community of learners and parents support learners in providing information. This global community encourages learners to locate ideas in a wider system of meaning than is available in a contained classroom (Riel 1996a: 221).

The GTP has been structured on the Learning Circles concept in order to foster collaboration within secondary schools and to develop thinking skills and problem solving within the growth and development of teenagers.

2.7 The Global Teenager Project

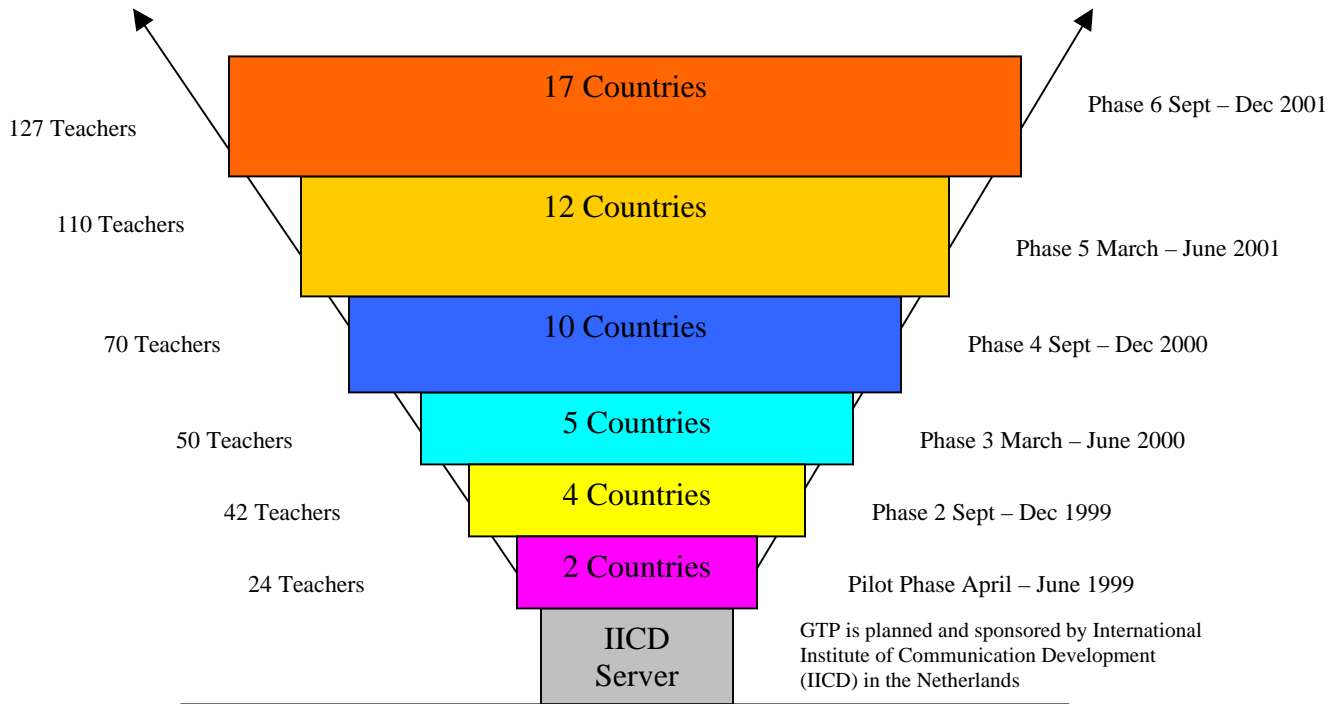
Global Teenager Project (GTP) is “a network of secondary school students from around the world, emphasis being on both developing and developed countries. The network is comprised of schools that are coordinated internationally by the International Institute for Communication Development (IICD) in the Netherlands, education partners, country coordinators and school leaders” (SchoolNet SA 1999:1).

On 19 March 1999, the GTP was officially launched during a videoconference that took place at the science festival, SciFest, in Grahamstown, South Africa. Learners from Nathaniel Nyaluza Secondary School and Nombulelo High School in Grahamstown communicated with their peers from A. Roland Holst College in Hilversum the Netherlands. During the videoconference learners exchanged questions and answers about the lifestyles of teenagers in both countries. They explored that day’s temperatures giving

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them instant examples of the direct opposite of the Northern Hemisphere cold winter to the warm Southern Hemisphere summer temperatures. They also inquired from each other about the kind of music teenagers' love listening to. Since its inception in 1999, the GTP has grown from these two countries that participated in the pilot phase to 17 countries participating in the 6th phase. This growth is represented in Figure 2.2

Figure 2.2 The growth of the GTP countries by phases and registered teachers



Compiled from overviews such as Learning Circle September 2001, distributed by project managers from Netherlands (Appendix A).

From the figure above, the future of GTP cannot be predicted since registration is open to all teachers who are interested to join the project.

To benefit the participants, the GTP is based on the following objectives:

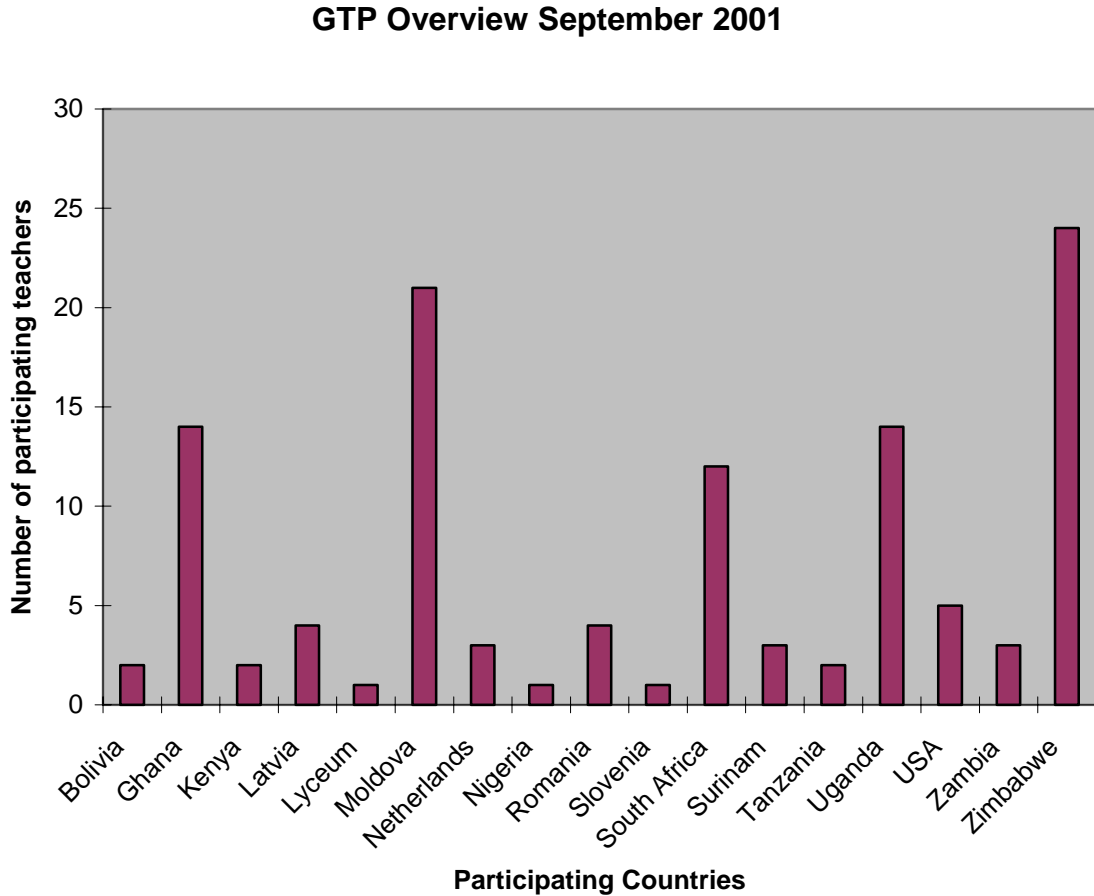
- To foster two way communication and exchange of information between young people in developed and developing countries;
- To exploit the cultural and geographical diversity between nations;
- To communicate through ICT technologies that can be integrated within the school curriculum and
- To work towards closing the digital divide between developed and developing countries (taken from SchoolNet SA 1999:1).

Having the GTP slogan as *“Today’s Learners are Tomorrow’s Leaders”* (Administrator IICD 1999b: 1) indicates that learners are also being prepared for cultural and geographical diversity of tomorrow’s world of work that is technologically dominated. Thus the learners

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explore this diversity to appreciate prevailing world problems and become part of the debate on how these problems can be tackled. This is in line with Fishman (1999:1) who asserts that if students are to be prepared for today's work world, these technologies must become a common part of schooling.

With reference to the September 2001 overview provided by the coordinators in the Netherlands (Appendix A), Figure 2.3 shows the participating countries by the number of teachers registered for the project and the World map (Appendix B) shows the extent of the GTP participating countries. Technical problems may force some teachers who have registered to fall out of the project. Moldova and Zimbabwe have the largest number of teachers registered outside of South Africa and the Netherlands.

Figure 2.3 Registered countries by number of teachers

2.8 Policies in the South African education system

In South Africa, the then Minister of Education, S. Bengu (1997) launched Curriculum 2005 in 1997. The new curriculum was planned to be phased in as indicated in Table 2.1. Bengu (1997) emphasised that the introduction of this new curriculum would play a major role in helping to transform our country into one nation in which we all want to live by producing thinking, caring learners. It would be a giant step forward in ensuring quality education for all the people of South Africa and would embrace all those who have a part in the learning process.

Table 2.1 Implementation of OBE in South Africa

Grades	Proposed year of implementation	Actual year of implementation
1 & 7	1998	2000
2 & 8	1999	2001
3 & 9	2000	2002
4 & 10	2001	2003
5 & 11	2002	2004
6 & 12	2003	2005

Although the actual time of implementation was delayed, this is an indication of desired change in the way learners are taught. The new OBE syllabus aims at developing in learners the ability to work in a team, to make contributions, to respect one another's points of view and be able to analyse information to suit one's situation. The GTP reflects some characteristics of Curriculum 2005 such as engaging learners in collecting data, analysing data and making meaning out of data collected from various sources in the same group. The GTP helps learners to develop problem solving and critical thinking skills, knowledge, attitudes and values for a globalising society.

2.9 Summary

This chapter has covered the definition of terms associated with CMC, the theoretical underpinnings of CMC with emphasis on collaborative learning theory that underlies CMC. It focused on how computer-supported collaboration can encourage learners to be part of international knowledge building communities. Three main learning theories are

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discussed: constructivism, cultural history and situated cognition. The history of CMC and its development both internationally and in South Africa lead to a discussion of current research and practice of CMC. The possibilities of CMC were explored by highlighting the advantages and disadvantages of how teachers can use CMC as a supplement to traditional contact classroom teaching. A specific model of CMC, the Learning Circles was described as it is the concept underlying GTP, which is the basis of this study.

Chapter 3

Research Methodology

*There is no reason not to participate because GTP is fun, enjoyable and very nice
(L 11.13).*

Research Methodology

3.1 Chapter overview

The aim of this case study is to understand how online collaborative activities proceed in time and in one place, in this case at Nathaniel Nyaluza Secondary School (NNSS), and compare them with what goes on at different times at the same site. A further comparison will be made between NNSS and what happens in other schools in South Africa and other participating countries in the world. This chapter will cover the research perspective and paradigm, the choice of research methodology, the data collection and analysis methods used in this study and the research process that was followed.

3.2 Research perspective and paradigm

This research is a qualitative case study undertaken within an interpretivist framework (Greene 1994), in an attempt to elicit how the teachers and the learners experience the GTP.

The interpretive paradigm as described by Cohen and Manion is characterised by

...concern for the individual. ...the central endeavour in the context of the interpretive paradigm is to understand the subjective world of human experience. To retain the integrity of the phenomena being investigated, efforts are made to get inside the person and to understand from within (Cohen and Manion 1994:36).

This study describes the pupils' and teachers' subjective experiences of the GTP by attempting to understand their perceptions through observations, interviews, and analysis of email correspondence. As the teacher-researcher is also a full-time teacher at NNSS she is inescapably both an observer and participant and therefore includes her experience of how the use of ICT, with particular reference to online collaboration, has actually evolved at NNSS.

3.3 Research approach

In this qualitative case study, the endeavour is to understand the subjective environment of experience, beginning with individual teachers and moving to learners in an attempt to understand their interpretations of the ICT environment around them and in particular collaboration through the GTP. The study attempts to highlight how best the ICT resources can benefit the stakeholders at NNSS with particular reference to collaboration through CMC. The reason for selecting a case study method was therefore to search for factors that influence the incorporation of CMC within the existing school curriculum at NNSS.

In a qualitative case study the researcher “typically observes the characteristics of an individual unit – a child, a clique, a class, a school or a community” (Cohen and Manion, 1994:106). In this case study the researcher “observes the characteristics” of a class involved in an online collaboration with other learners. Cohen and Manion (1994:106) further explain that “the purpose of such observation is to probe deeply and to analyze intensely the multifarious phenomena that constitute the life cycle of the unit with a view to establishing generalizations about the wider population to which the unit belongs”. Stake (1994) defines different types of case studies that reflect the different purposes for studying various cases. As this study is examined to provide insight into online collaboration, it can be partly classified as an instrumental case study and partly as intrinsic case study because one wants a better understanding of the perceptions of teachers and learners in this particular case. In this study, the researcher sets out to observe human actions continuously recreating social life at NNSS, particularly through observing the teachers and learners and to understand their perceptions of on-line collaboration and the perceived benefits that may be apparent.

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Stake (1994) refers to an instrumental case study as a study where a particular case is examined to provide insight into an issue of refinement of theory.

Stake further refers to an intrinsic case study as

undertaken not primarily because the case represents other cases or because it represents a particular trait or problem, but because in all its particularity and ordinariness, this particular case itself is of interest (Stake 1994: 237).

A case study method was decided on because this offered a way for the teacher-researcher to investigate her learners' and colleagues' perceptions of GTP, a project in which she had been involved before her research project was formulated. In addition the utilisation of donated resources aroused her interest in various methods of utilising the newer technologies which allow learners the opportunity to become part of this international learning as emphasised by

Stake below:

Teaching is not just lecturing, not just delivering information; more, it is the arrangement of opportunities for learners to follow a natural human inclination to become educated. Providing information, arranging access to information regularly, is a major part of teaching but two prior considerations are the selection of information and / or experiences needed and the recognition of conditions that will facilitate learning for learners individually and collectively (Stake 1994:92).

In order to ascertain whether learners are benefiting from this international arrangement, various data collection methods have been used.

3.4 Data collection methods

In this study, four methods have been used to collect data namely,

- Participant observation
- Interviews
- Survey and
- Document analysis and study of email correspondence.

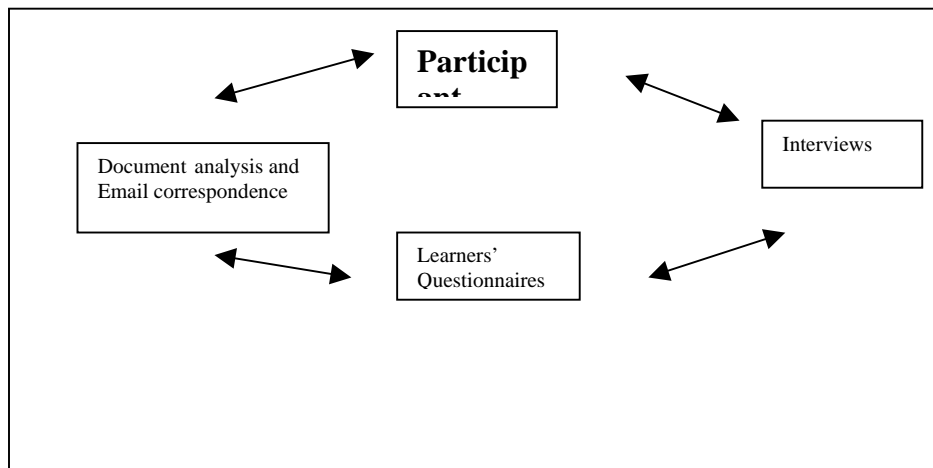
This is an attempt to triangulate data from the various stakeholders at NNSS in order to develop confirmation and completeness of the changes NNSS have experienced in the developments of ICT that support CMC.

Cohen and Manion (1994:233) define triangulation as “the use of two or more methods of data collection in a study of some aspect of human behaviour. Referring to Smith, they indicate that “different research methods act as filters through which the environment is selectively experienced, the methods are never neutral in representing the world of experience” (Smith cited in Cohen and Manion 1994:233). Smith warns that exclusive reliance on one method may bias or distort the researcher’s picture of a particular slice of reality being investigated. Stake (1994) and Cohen and Manion (1994) refer to triangulation as a process of using multiple perspectives to clarify meaning, verifying the repeatability of an observation or interpretation. Denzin (cited in Cohen and Manion 1994) refers to triangulation as the use of multiple perspectives to study a single problem. He extends the view of triangulation to take in several other types such as time triangulation, space triangulation, and investigator triangulation. In this case study, methodological triangulation, (Figure 3.1) will involve use of:

- Participant observation of the researcher

- Interviews with at least one teacher and three learners who have participated in the GTP
- Questionnaires with open-ended questions to elicit learners' attitude towards the GTP and
- Document analysis and study of email correspondence.

Figure 3.1. Methodological Triangulation: Adapted from Hodgkinson (2000)



Time triangulation will focus on the different GTP bi-annual phases since 1999; the effects of ICT change and process will be compared from the pilot phase to the current 6th phase at the time of writing this thesis.

Richardson (2000) and Janesick (2000) have moved away from triangulation to “crystallisation.” They recognise that there are far more than “three sides” from which to approach the world. Crystallisation as developed by Richardson (2000) suggests that crystals grow and change just like knowledge does: what we see depends upon our angle of response. Thus crystallisation is seen as a better lens through which to view qualitative research designs. This is why it is important that various methods are used to collect data in

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this study so that every stakeholder at NNSS is represented. Janesick (2000:397) states that “too often we become comfortable in our worlds and ...sometimes the most obvious things are hardest to see because they are right in front of our eyes”. Being a teacher at NNSS, the researcher cannot take what she observes as the most credible or claim that her views represent the ICT situation at school accurately. It is important that a number of possible methodologies or angles are explored in relation to questions asked and stakeholders (Table 3.1).

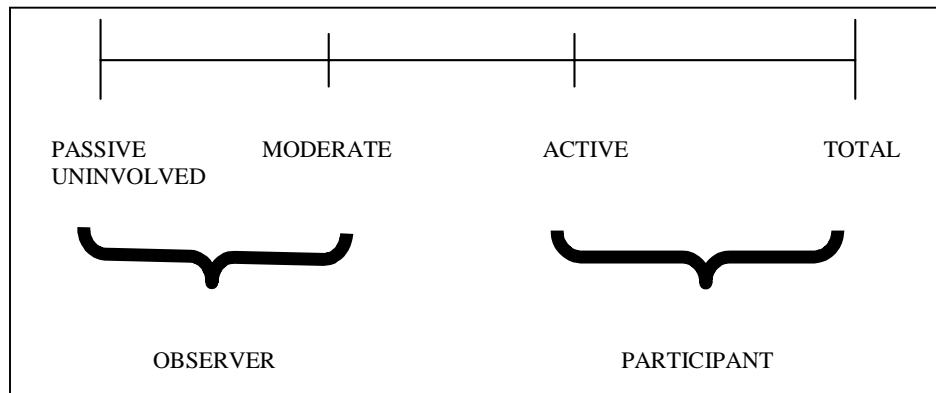
Table 3.1 Data collection matrix

	Subsidiary questions	Email correspondence	Questionnaires	Document analysis	Participant Observation	Interviews
1a & 1b	How do the teachers use the project within the existing school curriculum? How do the learners feel that the topics of the online collaborative project relate to their normal school work?		Learners		Researcher	Teachers Learners
2	What are the difficulties in incorporating collaborative online team projects within the curriculum?	Teachers Learners	Learners	IICD web site		Teachers
3	How can participants have input into the collaborative online GTP?			IICD website		Teachers
4	Does the project enhance the pupils' learning?		Learners		Researcher	Teachers Learners
5	What technical difficulties are experienced in the GTP?	Teachers Learners	Learners		Researcher	Teachers Learners
6	Does involvement in the GTP make additional demands on the work of the teachers and learners? What are these?		Learners	IICD website & SchoolNet website	Researcher	Teachers Learners
7	What are the perceived benefits of being involved in the GTP?		Learners	IICD website & SchoolNet website	Researcher	Teachers Learners

3.4.1 Participant observation

Savenye and Robinson (1996) indicate participant observation is a qualitative method frequently used in social research. As the teacher-researcher is a full-time teacher at this GTP participating school, participant observation is the basis for this case study. Anderson, Herr and Nihlen (1994) classified it as practitioner researcher with teacher-researchers as total participant observers in their classrooms (Figure 3.2).

Figure 3.2. Types of participant observations



Adapted from Anderson, Herr and Nihlen (1994:132).

Although the teacher-researcher was already a regular GTP participant at NNSS, her role as a researcher remained in the background for a long period when she was just one of the enthusiastic teachers utilizing computer resources for collaboration purposes. Already then she was able to note the non-verbal behaviour and was able to make notes about the salient features of the participants without disrupting the situation.

As a teacher, she also developed an intimate knowledge of the work of the project, as it later became the basis for her studies. The teacher-researcher helped the pupils to keep the

deadlines. In order to have learners participate in all online chat sessions even during the holidays, prior arrangements were made to have learners present for the chat sessions. The teacher-researcher's personal concerns were the validity of the data and ethical issues. If GTP were not her choice of study area, would her commitment have remained the same? The answer would be yes. This is because the GTP was not the only online project she arranged for the learner's to participate in. Appendices C and D show how the teacher-researcher extended her interest in online collaboration through the Planet Project that resulted in learners winning 16 state-of-art computers for the school. Regarding ethical issues, the researcher was as rigorous as possible. Consent was verbally obtained from the school principal about her intentions to have the GTP as her research topic. All requirements such as the use of questionnaires and interviews with learners and teachers were made known. As the learners were a captive audience, they were made aware of the activities of the GTP and the research needs. Although at first the GTP was conducted during the teaching time, later on teaching time was never used as GTP was considered an extra-curricular activity by the school management. All interviews and completion of questionnaires were done during non-teaching time. Even though learners were not concerned as to whether their real names would be used or not, since most of them are still minors an attempt to conceal their identities has been made.

3.4.2 Interviews

In-depth interviews were carried out with the three learners who provided the most contributions in the project work and with the one teacher who completed the project work. Interviews were unstructured which allowed the interviewer and the interviewee to enter into a dialog (Appendix E and F). Arksey and Knight (1999:32) claim that qualitative

3.4.3 Survey - Questionnaires

Although the use of questionnaires is not usually a tool advocated by case study researchers, a learners' questionnaire was administered to support the participant observations and to obtain responses from the various groups of learners that participated in the GTP. Personal feelings that could not be observed could be expressed by learners in the open-ended questionnaires. The questionnaire was limited to two pages so that it looked easy to complete (Appendix G). In response to the open-ended questions learners had an option to express their personal feelings; these raised ideas for the in-depth interviews that were conducted after studying the learners' responses. An unstructured questionnaire with open-ended questions is favoured by Gillham (2000b: 5) who argues that "open questions can lead to a greater level of discovery". He further states that this makes open-ended questions difficult to analyse. In this study, learners' ideas were grouped together into themes (Maykut and Morehouse 1994) so that they did not pose difficulties in analysing the data collected.

3.4.4 Document analysis and study of email correspondence

This involves studying and analysing the literature supporting GTP and Computer-based Collaborative Learning. Hitchcock and Hughes (1995:213) state that "in reality the teacher-researcher is both a user of existing documents and the creator of new ones, ... and seeks out and interprets primary documentary data and then creates a secondary record, one open to public scrutiny". Since the teacher-researcher's study interest in the GTP came later than the pilot phase, documents and emails hosted by IICD website about the GTP helped to fill in the gaps. Hitchcock and Hughes further point out that "archival sources can produce quantitative and qualitative information" (Hitchcock and Hughes 1995: 215).

The teacher-researcher who participated throughout all the phases of the GTP Learning Circles received and analysed numerous emails. In one single phase of a 10-week period, expected emails are shown in Figure 3.3 below:

Table 3.3 Expected numbers of emails for a ten-week circle

Source of email	Number
Coordinators from Netherlands during preparation stage (getting ready)	3
GTP Facilitator from Ghana, 1 email every week	10
Country coordinator 1 every week	10
Learners' hello message 1 from every school	10
Teachers' hello message 1 from every school	10
Questions from every school	10
Responses from every school	10
Summaries from every school	10
Good bye messages from every school	10
Total	83

In general this shows that, a single group would have received at least 498 emails (83x6 phases) since the inception of GTP. These emails have to be analysed in order to make concluding observations how the GTP can be incorporated in the curriculum at NNSS.

3.5 Data analysis

Questionnaires, interviews with learners and Teacher A provided qualitative data, this data was analysed using the “ constant comparative method” (Maykut and Morehouse 1994: 134).

In this method,

As each new unit of meaning is selected for analysis, it is compared to all other units of meaning and subsequently grouped (categorised and coded) with similar units of meaning. In this process there is room for continuous refinement; initial categories are changed, merged, or omitted; new categories are generated; and new relationships can be discovered (Maykut and Morehouse 1994: 134).

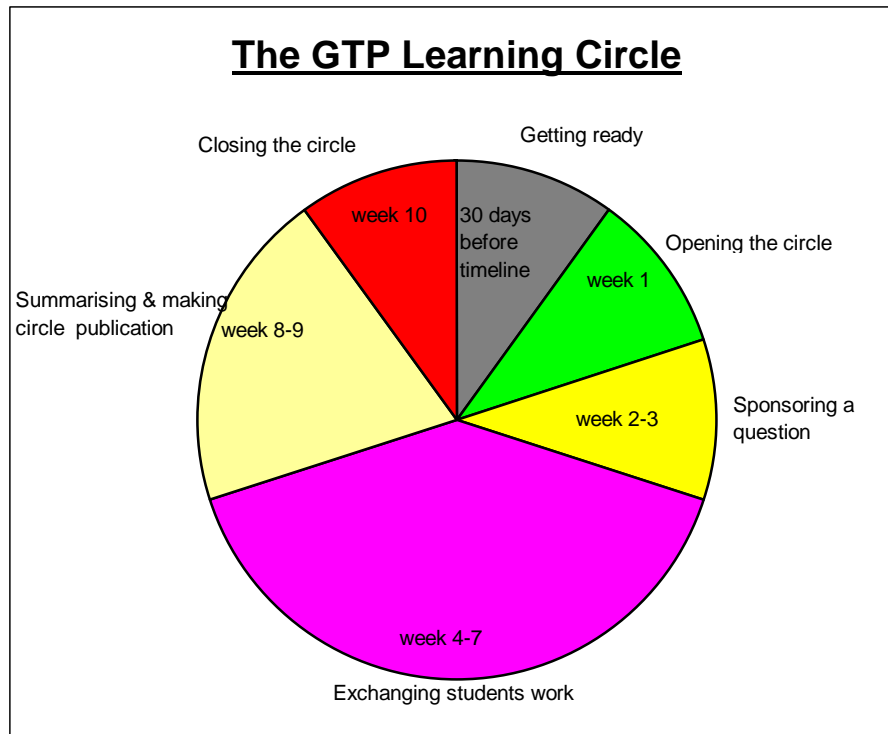
Microsoft Excel 2000 was used to record the themes that were illustrated in bar graphs and pie charts. Descriptive statistics from the pie charts were used for comparisons.

3.6 Research process

The research process involves the teacher-researcher facilitating the process of interaction through the following Learning Circles structure.

3.6.1 Planning the GTP Learning Circles

Planning the Learning Circles took place in several steps as outlined in Figure 3.3 namely: getting ready; opening the Learning Circles; sponsoring a question; exchanging students work; summarising and making a circle publication and closing the circles.

Figure 3.3 The GTP Learning Circles

Adapted from Riel (2001a)

Forming the Learning Circle requires that approximately 8 to 10 classrooms with a common purpose are joined to form a Learning Circle with a curriculum theme such as: Human Rights; HIV/AIDS; Health; Youth Employment; Nature; My life; Culture; Leisure; French; Spanish; Sustainable Development or Globalisation (Administrator IICD 2001:1). At NNSS we followed an implementation strategy suggested by Riel (2000); Riel, Gast and Hofman (2000) and Riel and Verheij (1999). The steps are provided in the teachers' guide (Appendix H) as well as a timeline from project coordinators in the Netherlands (Appendix I) for the various Learning Circle phases.

3.6.2 Getting Ready: Preparation

This stage started with correspondence from the coordinators from the Netherlands inviting schools to register for the GTP. In the pilot phase the coordinators invited all learners from all schools to design a GTP logo that would be used on all correspondence and on the GTP website for the years to come. The best-selected logo would win a digital camera for the school. At NNSS this letter was sent to teachers, and learners and put on notice boards. During a staff meeting, the school coordinator clarified what the project was all about. Interested teachers at NNSS were led through a teachers' guide, usually on a one-to-one basis with the school coordinator. Those willing to join completed an online placement form provided by the project coordinators from the Netherlands.

The placement form is usually available online 30 days before the start of the project timeline. Teachers facilitating the circles were led through how best to use email to support the GTP, prepare a mailing list of their learners and make sure that every learner participating has an email address. This helped the teacher to forward all Learning Circle correspondence to all learners involved in the group. Teachers prepared their students for participation in Learning Circle by explaining the Learning Circle goals and what their roles would be. This involved discussing responsibilities and setting aside time for the project's work. Teachers encouraged learners to think about a question to ask the other participants. The concept of school codes (see Appendix H-9) was explained, as new teachers need to know how to use the school codes properly whenever they post correspondence to the Learning Circle mailing list. In order to keep a record of emails posted to the lists, it is important that the assigned school codes are used properly in the subject line (see Figure 3.4) of every correspondence as requested by the coordinators maintaining the server in the Netherlands.

Figure 3.4 Sample of sponsored question: Class question from NNSS March 1999

To: gtp@list.iicd.nl

Subject: **nnhs1 Class Question**

Dear participants

We would like you to survey products from a supermarket in your country.

1. List any 5 locally manufactured products; indicate their barcodes and the prices in your currency.
2. List any 5 other foreign or imported products (one product one country), indicate the prices, the barcodes and country of origin.

For instance this is a typical South African product, barcode and price

Mint Crisp Chocolate	6001120017118	R4.19
----------------------	---------------	-------

The first two digits indicate country of origin

The third to fifth indicate producer of the product

The next 4 digits indicate specific product

And the last single digit is the control figure

Looking forward to your answers.

Your partners in GTP

Grade 11

Nyaluza H S

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The best time to motivate the learners about the project is during the 30 days before the project commences. The ideal is for learners to complete the 10-week circle without letting the group down. As Riel emphasizes, working in a collaborative setting with peers around the world gives learners wider perspectives on issues and a greater understanding of similarities and differences that lie beyond their environment: “the work with others can be a powerful mirror that will help learners see who they are, where they live, and who they live with” (Riel 1996a: 221). It is this time of getting ready that will prepare learners for successful completion and the benefits gained from participating in Learning Circle. Once learners are well prepared, some can be instrumental in helping a teacher and other group members to keep within the expected timeline.

3.6.3 Week 1: Opening the Learning Circle

Week 1 is for opening the Learning Circles. This is the introductory phase; learners provide a profile of themselves, their school and their community in a class letter that is sent by email to the learners in other schools. The NNSS pupils tended to introduce Grahamstown as the Festival City and described what the various festivals namely, SciFest, National Festival of Arts, School’s Festival, National Christian Festival and the Business Week Festival, bring to the town. In this week teachers also introduce themselves to the participants in an opening chat session and by sending an introductory teacher message to the circle (Appendix H-10). As schools in the Learning Circles introduce themselves, the teachers guide the learners to locate the country and the nearest town mentioned in the introduction using wall maps, an atlas and even a globe. These teaching aids all help learners to visualise the extent of the project (Figure 3.5).

Figure 3.5 Global Teenager Project participants NNSS September 2001



Learners are also taught how to file their messages by creating a mail folder for in-coming mail from every school according to the codes assigned to the participating schools. In so doing learners learn how to work with email technologies including how to access saved messages.

3.6.4 Week 2 and 3: Sponsoring a question for the Learning Circle

Weeks 2 and 3 require the class to sponsor or initiate an activity in the Learning Circle that can be drawn from the classroom curriculum and integrated into ongoing activities. For instance at NNSS in Grade 11 Business Economics Class, the topic “Foreign Trade” is directly supported by the Learning Circle theme, “Trade”. Class questions can take a form of a requested survey of goods in a supermarket produced domestically or internationally including their barcodes and prices, as indicated in Figure 3.4.

The requested data can carry a great deal of information from various partners in different countries. Such an activity can lead learners to convert prices from foreign currencies to

South African Rand, which in turn can bring about comparison of the cost of living and the effect of inflation in international trade. The success of the project depends on learners and teachers taking responsibility to define and organise learning activities / questions for distant partners within the given time frames.

3.6.5 Week 4–7: Responding to the Learning Circle questions

During this session, learners exchange work on the project. It is scheduled for four weeks as school holidays may form part of this period. Learners have approximately four weeks to prepare their work and respond to the questions.

At NNSS a group of two or three learners were assigned to correspond with one of the eight schools. The learners had time to research possible answers following which their written work was presented to the rest of the class for editing and approval of information as an acceptable response to the circle question. As the learners were writing for an audience, they were encouraged to produce their best possible work. Towards the end of this period, a learners' chat session brought them together to 'talk' about the project and to debate the answers and ideas they had received through emails. As the chat session was synchronous and spontaneous in nature, teachers had no control of what learners wished to ask each other or what they wrote about.

3.6.6 Week 8-9: Summarising the answers

During weeks 8-9 the class will usually have collected most responses to their question sponsored from participating schools. As Riel (2000) points out that, even if only four out of ten schools send in their answers, this would still provide enough information to contribute to

the summary for which the group is responsible for evaluating, editing, and formatting in their project work. This summary is sent by email to the mailing list. One of the goals of the GTP is to make a Learning Circle publication that will be shared with parents and the rest of the school by reserving a copy for the school library. This summary is very important as GTP coordinators in the Netherlands use it to make a joint Learning Circle publication and post a copy to every school that completed the phase (Appendix H-28). This publication that includes pictures of participants becomes a copy for the school library for every stakeholder at school to share. At NNSS the importance of a summary was emphasised to the learners since this is what they will find in the general GTP Learning Circle publication published by IICD in the Netherlands.

3.6.7 Week 10: Closing the Learning Circle

During this period, learners write and send a goodbye message via email and say good-bye during a closing chat session before the Learning Circle closes. Thereafter, learners and teachers review what they have accomplished in terms of interpersonal skills, intellectual skills, emotional skills developed during the spontaneous chat session, their capacity for linking knowledge to real life situations, and their efforts to improve grammatical errors so as not to look like ‘dummies’ to the other schools in the Learning Circle (Doheny-Fahrina 1996:116). This is the time to determine strategies for the next phase depending on what achievements were made. On completion of the GTP phase, project coordinators from the Netherlands design and post certificates to schools. Some schools register, but fail to complete the project work and so do not receive certificates for learners and teachers. Reasons given include technical failure and breakdown of the Internet connection.

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At NNSS the excitement from the first chat session made the learners to look forward for the closing chat session. The groups that completed the project work were rewarded with certificates from the project coordinators from the Netherlands (Appendix J). During the pilot phase IICD arranged for a video conference through the then Eastern Cape SchoolNet administrator Mr Tim Bouwer who arranged transport for participants from NNSS and Nombulelo High School in Grahamstown to Port Elizabeth. The project logo competition was unveiled on 7 June 1999 (Appendix K) with Siyabulela Mapapu's logo from NNSS judged the best.

3.7 Summary

This chapter covered the research perspective and paradigm that shaped the focus of this study as a qualitative case study undertaken within an interpretivist framework. The research focused on online collaborative learning through CMC. The GTP was explored as a specific international arrangement that allows learners to collaborate with peers from all over the world. Furthermore, the chapter included a discussion of the data collection methods used. The teacher-researcher relationship favoured participant observation that was supported by interviews of learners and a teacher. A survey was conducted in order to reach all the NNSS learners that participated in the GTP. An additional data collection method was document analysis and study of emails. Various methods were used to help to develop a complete perspective of the changes NNSS has experienced in the ICT developments through online collaboration. A data collection and analysis matrix that guided the researcher in the collection and presentation of data was provided. Finally the research process at NNSS, followed the structure for organising Learning Circles as adopted from the International Education And Resource Network (IEARN), was explained.

Chapter 4

Findings

You search for knowledge and information about your country and give to the other learners in another country (L.9).

I learnt that the youth in fact teenagers think commonly and do things almost the same (L8.13).

Findings

4.1 Chapter overview

In this chapter, the findings are drawn from the participant observation, the survey, the interviews and documents in order to address the following research areas:

1. How well the GTP relates to and supports the school curriculum at NNSS.
2. How the GTP enhances or hinders teaching and learning at NNSS.
3. The technical and organizational difficulties that GTP participants faces.
4. Factors that would influence teachers and learners to participate or not to participate in a future GTP.
5. How the GTP can be adapted to benefit the participants.
6. The impact of the GTP at NNSS.
7. Obstacles or barriers to GTP at NNSS.

4.1.1 Convention of terms used

The following terms have been adopted in this chapter:

- Student A, B, & C refer to three learners who were interviewed (Appendix L).
- Learner 1.1 refers to Question 1 and Learner 1 respectively of the learners' questionnaires. Altogether 30 learners completed the questionnaire (Appendix G).
- Teacher A or "teacher" refers to the interview with one teacher who participated in the GTP (Appendix M).
- Teacher-researcher refers to the participant observations undertaken by myself; teacher-researcher also represents the role of a school ICT coordinator at NNSS.

Chapter 4

Since a variety of methods were used in the study, Table 4.1 summarises the sources of data for the sections in this chapter.

Table 4.1. Outline of sources of data for Chapter 4

	Sections	Learners' Questionnaire (LQ)	Interviews Learners (IL)	Interview Teacher (IT)	Participant Observation (PO)
4.2	How well the GTP related to and supported the school curriculum at NNSS	LQ 9 &10	Student C	√	√
4.3	How the GTP enhanced or hindered teaching and learning at NNSS	LQ 7&3	Student A & B	√	√
4.4	The technical and organizational difficulties faced by GTP participants at NNSS	LQ 4 &5	Student C	√	√
4.5	Favourable factors to teachers and learners to participate or not in the future phases	LQ 11	Student B	√	√
4.6	How the GTP can be adapted to benefit the participants at NNSS	LQ 6	Student A&C	√	√
4.7	The impact of the GTP at NNSS	LQ 8, Q12	-	-	√
4.8	Obstacles or barriers to GTP at NNSS	-	-	-	√

4.2. How well the GTP related to and supported the school curriculum at NNSS

In order to determine how well the GTP related to and supported the school curriculum at NNSS, data is drawn from interviews with student C (Appendix L) and from Teacher A (Appendix M); learners' questionnaire, Questions 9 and 10 (Appendix N and Appendix O respectively); and from the teacher-researcher.

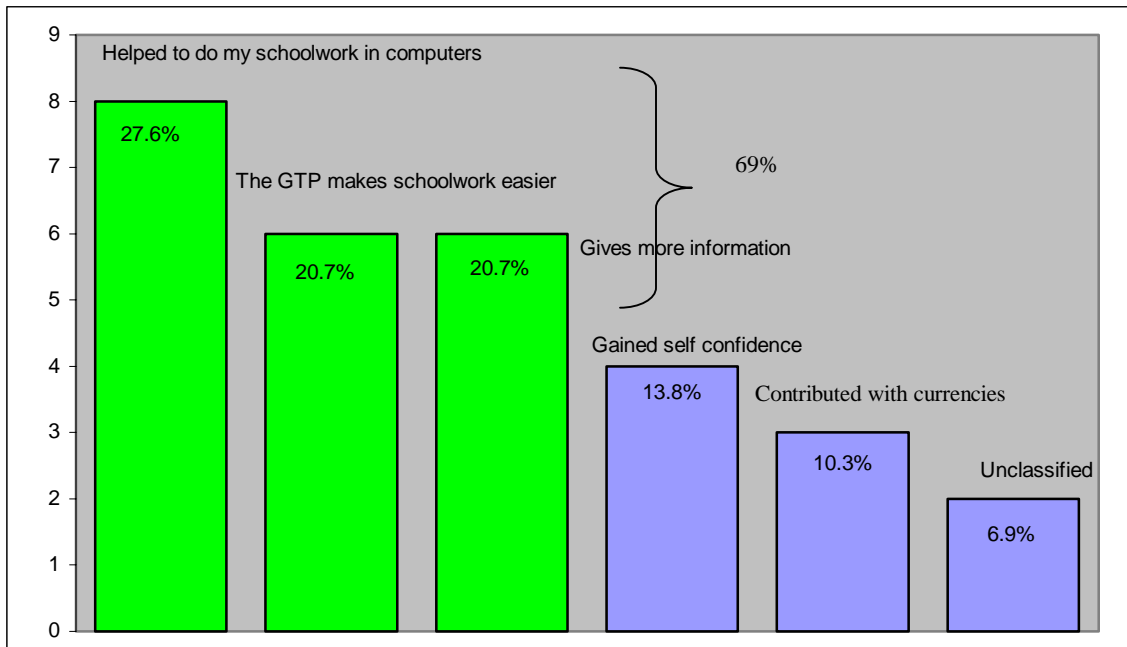
Responding to how well the GTP related and supported the school curriculum, 27.6 % of the learners indicated that computers helped them to do school work followed by 20.7% who felt that the GT; made schoolwork easier because they gained skills in searching for information on the Internet (Table 4.2).

Table 4.2. Summary Q 9: How did participating in the GTP contribute to your schoolwork?

Themes	Learners	Percentage
Helped to do my schoolwork using computers	8	27.6 %
GTP makes schoolwork easier	6	20.7 %
Gives more information	6	20.7 %
Gained self confidence	4	13.8 %
Contributed with currencies	3	10.3 %
Unclassified	2	6.9 %
TOTAL	29	100%

If the first three categories are grouped together, as they all concern aspects relating to the school curriculum, then it is clear that 69% of the pupils perceived that the GTP related and supported the school curriculum as illustrated in Figure 4.1.

Figure 4.1 How did participating in the GTP contribute to your schoolwork?



Y-axis: represent number of learners that answered Q9

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From the teacher-researcher's point of view, learners learnt how to search for information on the Internet in order to answer the questions from the partner schools. In this way they learnt how to use the Internet as a virtual library. When a question was received from a school in Zimbabwe about the Common Market for Eastern and Southern Africa (COMESA) none of the learners had any idea what the acronym meant. Student C had this to say,

It contributed a lot on my school work for there were some questions from other schools like COMESA, we would not find the information in the text books but we would go to the Internet and find information requested on the subject.

Searching the Internet and finding the COMESA website enabled them not only to respond to the question but they were also able to compare it to the Southern African Development Community (SADC) trading block which is in their syllabus. From teacher A's point of view, "*The GTP was empowering, and you begin to know how other people live*". This is in line with Collis' (1996) and Reil's (2000) belief that learners are able to explore cultural and geographical diversity.

From the teacher-researcher's point of view, the GTP brought real world situations into the classroom by obtaining examples from the other countries. When a question was well thought out, like the example in Chapter 3, Figure 3.4, where learners requested for prices of goods in foreign currencies, very interesting comparisons of products locally produced and imported were made. Such an activity led to learners converting prices from foreign currencies to South African Rand, which in turn brought about the comparison of the cost of living and the effect of inflation in international trade. From the teacher-researcher's point of

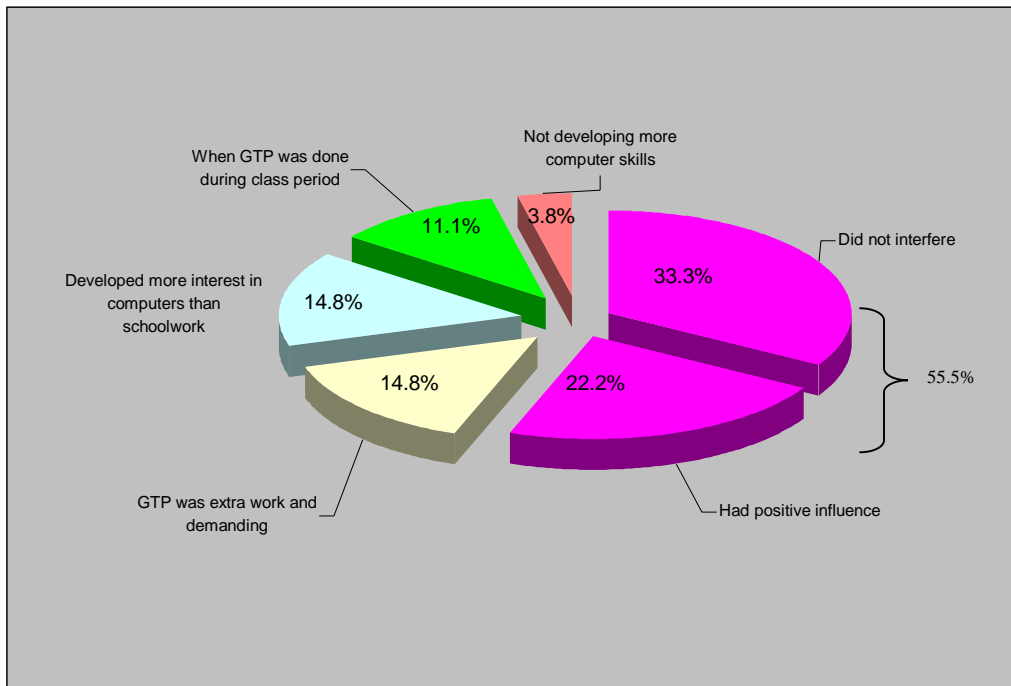
Chapter 4

view, being a teacher of Business Economics, the GTP helped to explain some concepts such as the differences between primary data and secondary data and information derived from processing the data. This explanation was achieved by referring to prices received from other countries as raw data that had to be converted into South African Rand (secondary data) so it that made sense to the learners. Obtaining information that is understood enabled them to compare the cost of living in different parts of the world from where the GTP participants wrote. This had a major influence on their understanding of exchange rates and foreign trade concepts in Business Economics.

However, at NNSS we found that there are subjects more suited to use of CMC and the GTP in particular. Commercial subjects, humanities and cultural studies have fitted in very well in the CMC format; while subjects like science, mathematics and performing arts did not have themes supporting such subjects and were not reflected in the list provided by coordinators. The success of the project depended on learners and teachers taking responsibility to define and organise learning activities / questions for distant partners within the given time schedules.

When learners were asked how the GTP could have interfered in their schoolwork, the following responses were received. Out of 27 learners who responded to Question 10, 33.3% clearly stated that the GTP did not interfere with schoolwork and a further 22.2% felt that the GTP instead had a positive influence in their schoolwork. If the first two categories are combined, then it is evident that 55.5% of the pupils felt that the GTP did not distract them from their school curriculum (Figure 4.2).

Figure 4.2 How did participating in the GTP interfere with your schoolwork?



Furthermore, 14.8% indicated that they developed more interest in computers than in schoolwork. As learner 10.10 (Appendix O) stated, “*I loved the GTP that made me not to work but to think about computer*”. Sometimes learners stayed for long periods in the computer lab after school. From the teacher-researcher’s observations it could not be established whether learners completed their schoolwork at home or not.

The conclusions drawn from these observations show that the GTP supported the school curriculum especially through receiving responses from foreign partners that linked directly to a section in their curriculum.

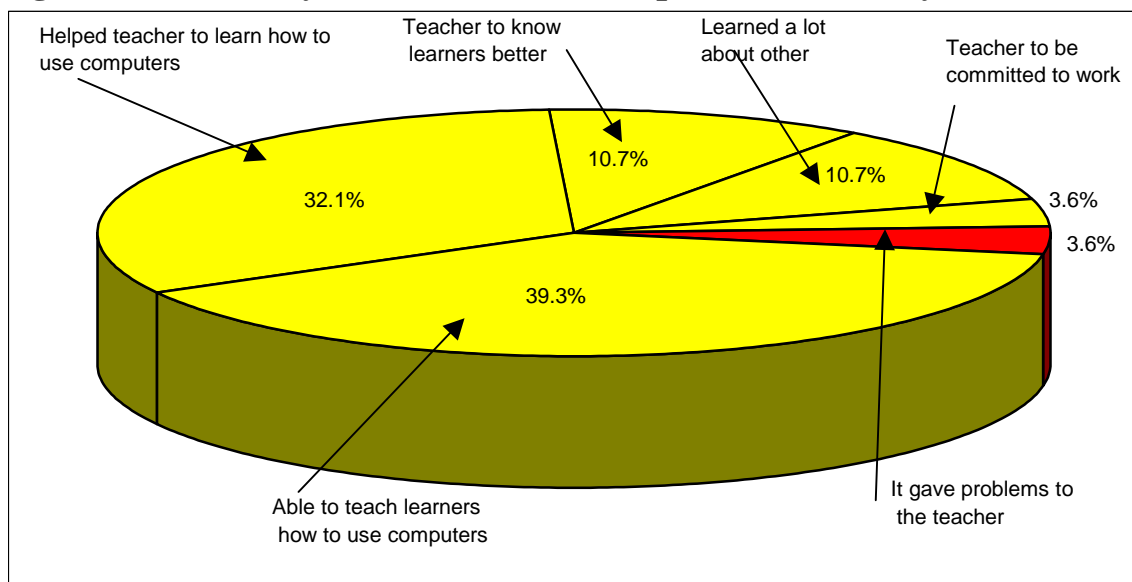
4.3 How the GTP enhanced or hindered teaching and learning at NNSS

In order to determine how the GTP enhanced or hindered teaching and learning data is drawn from:

- Learners' questionnaire Q7 about how the GTP enhanced teaching and Q3 about how the GTP enhanced learning (Appendix P and Appendix Q respectively), interviews with teacher A, interviews with student B and from participant observation.
- Learners' questionnaire Q7, learner 7.10 about how the GTP hindered teaching and learning, interviews with teacher A, interviews with student A and from participant observation.

Of the 28 learners who answered Question 7, the GTP was deemed to enhance **teaching** in various ways. The pupils (39.3%) indicated that GTP enhanced the teachers' work because teachers were able to teach learners how to use computers (Figure 4.3).

Figure 4.3 How do you think the GTP helped or hindered your teacher?



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If the first five categories are grouped together, it is clear that 97.4% indicated that the GTP enhanced their teacher's work (Figure 4.3). Only 3.6% pointed out that the GTP gave problems to the teacher. This answer came from learner Questionnaire 7.10 (Appendix P) who stated:

“it gave a big problem to my Business Economics teacher because she is the only one who knows about the GTP and she works hard on her own to teach us how to communicate to other learners using a computer”.

This learner understood the daily workload of the teacher and that the teacher-researcher worked hard to promote the GTP at school.

The learners' viewpoints of how the project helped their teacher were as follows:

Student B. *“it helped her big time she even helped us to know how to use a computer”.*

Learner 7.11. *“I think my teacher gain something that he/she does not know before [training workshops], and she / he transplant information to us as student. Students also share their information with her”*

Learners saw their teachers as co-learners and they also recognised that the staff development workshops that the teachers attended had benefited the pupils too. Although learner 7.11 saw the teachers as a source of knowledge and computer skills, the learner also realised that students shared their information with their teacher. For example, learners used atlases, a globe and wall maps to find the towns and countries where their partner schools were located and the teacher-researcher only verified their research findings thus learning from them.

Regarding whether the GTP enhanced or hindered teaching, Teacher A, had this to say:

Yeah in fact I would capture information, the questions raised in the GTP from other schools and I would give them to another class as an assignment.

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Such as: Is TV now part of your culture or how has TV influenced your culture? (Teacher A).

From the teacher-researcher's point of view, the GTP enhanced her teaching because it gave a break from the usual textbook-based information and provided examples that were real to learners, for example, converting prices from foreign currencies. In this activity different groups were assigned to different schools, from different countries. Each group had a completely different set of data to process, convert and analyse, thus compelling the rest of the class to rely on answers from others. In this way group dynamics and teamwork were well planned and implemented in a classroom situation.

Furthermore the teacher-researcher's organisational abilities improved. As a school ICT coordinator, the teacher-researcher realised that to utilise resources, she would need to work through other people in order to offer learners opportunities with computers. Although her interest is in working with computers, her obligations lie heavily in being a full-time teacher of Business Economics. Arrangements had to be negotiated for two former students, who had graduated from a technical college but were still unemployed, to train our learners in computer literacy, including the development of simple personal web pages with a few hyperlinks. Web page development is still in its early stages at NNSS; but this initiation into web page development raised learners' enthusiasm to the extent that the school is considering the involvement of some learners in Think Quest International Challenge, a web development competition that is CMC based.

On the other hand, the teachers found that the GTP made additional demands particularly in terms of the extra time that had to be created after school for project work. This is in line

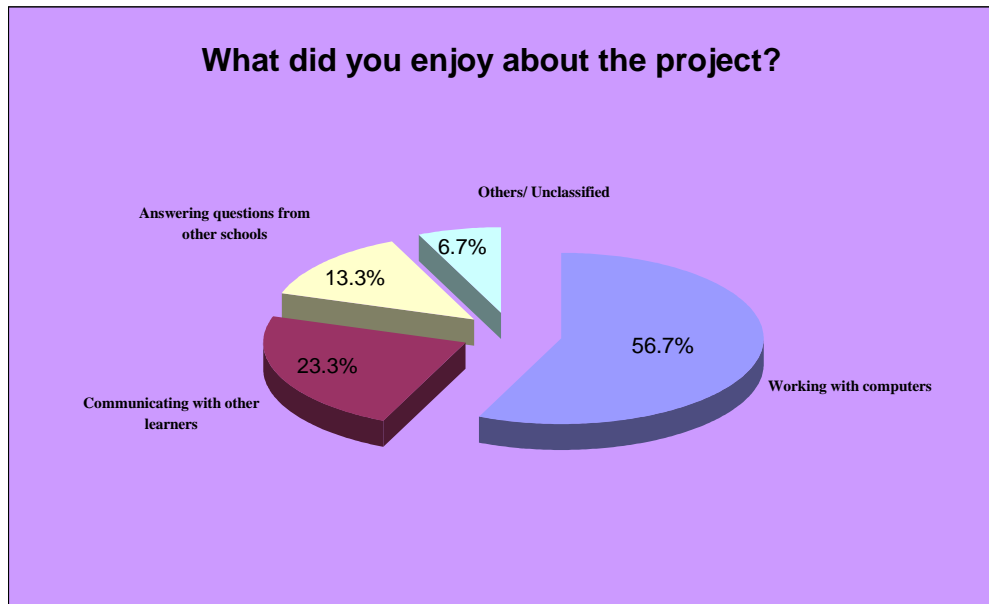
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with the disadvantages of CMC given by Collis (1996) and Jones (2001). At NNSS projects are done after school as an extra curricular activity, so teachers involved have to create time for project work. When teacher A was interviewed about whether the GTP imposed additional demands, he had this to say:

Yeah because sometimes I had to make research and I have to go to help learners to respond adequately to the people outside our school, as much as I would like them to research, I have to look for sources of reference for them. It is also important to study through the reference so that the learners will be able to find the answers they are looking for. (Teacher A).

From the teacher-researcher's point of view, as a school ICT coordinator, when a teacher was recruited into participating in the projects he/she always needed help, which she gave. In addition to her daily curriculum demands it became her responsibility to nurture other groups so as to avoid them dropping out of the GTP. One of the project goals is not to let other members of the learning circle down but to complete up to the last stage. Assisting other teachers' needs while sustaining her project's needs imposed additional demands on the teacher-researcher.

Question 3 of the learners' questionnaire (Appendix Q) was intended to determine what the learners enjoyed most in the project. The following themes became apparent (Figure 4.4): working with computers, communicating with other learners and answering questions from other schools.

Figure 4.4. What learners enjoyed about the project

Of the 30 pupils who answered Question 3, 56.7% said that they enjoyed working with computers. The project triggered learners' interest in computers and learners have subsequently paid for computer literacy classes that teaches them not only to use computer-based tools but how to develop their personal web pages. In the process they began to think of a computer as a medium for expression, communication and learning. Through their computer literacy classes, they have constructed simple individualised web pages that have an existence and an accessibility that transcends the boundaries of the school and introduces the notion of an unknown audience. The benefits of acquiring such a skill was reflected in a chat session, which include phrases such as; *“put up your hand, will you please stand up? I want to see you!”* One of my learners quickly had this reply: *“see me on my home page @ <http://www.nyaluza.ecape.school.za/~n4279>”*. This fulfils exactly what Perrone *et al* (1996) suggest namely that learners begin to take advantage of the WWW as a medium of expression rather than merely as a tool.

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Learners exchanged email addresses during the chat session showing a willingness to bond with each other and develop “key pal” relationships. Learners even chatted about their names, whether it is a boy or girl’s name and what the meanings could be. Topics also extended to youth employment that clearly created two camps. One camp supported the view that youth should engage in part time jobs, while a second camp completely discouraged youth employment. Those who supported youth employment argued that it is a way of independently raising pocket money while still at school and it is also a way of gaining experience for the world of future work. The second camp completely discouraged youth employment arguing that it interferes with schoolwork and may eventually lead to school dropouts. The experience they gained from the chat session was long lasting; learners talked about it and looked forward to the next chat session. It is interesting to note that two learners from NNSS group had part time jobs over the weekends and insisted that part time jobs do not lead to school dropouts.

There is great potential how the GTP can enhance teaching and learning process at NNSS through learners’ collaboration, processing of data, analysing and making information available to the rest of the schools. Although the GTP came with additional demands for the teachers, the project did not hinder the teaching process but has potential to enhance teaching.

4.4 The technical and organizational difficulties faced by GTP participants at NNSS

Data for this question was gleaned from

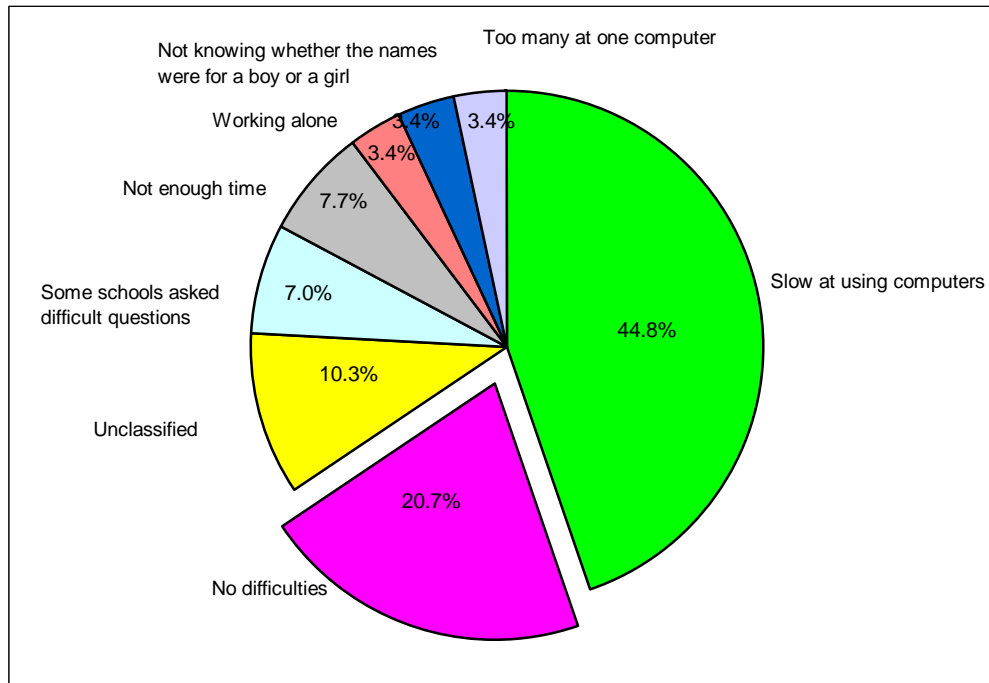
- Learners’ questionnaire Q4 & Q5 (Appendix R and S respectively)
- Learners’ interview

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- Teacher's interview and
- Participant observation

Only three pupils answered Question 4 as posed. The other 27 all provided an answer that was similar to question three. It would seem that the pupils either did not understand or overlooked the word “least” or they misread the question. In retrospect it may have been better to pose Question 4 as: “What did you NOT LIKE about the project?” The repetition of the word “enjoy” may have confused the learners. Of the three who answered question 4, two indicated that they found lack of time available for using computers to be a problem.

Although the learner questionnaire did not provide comprehensive answers to this question the interviews with both the learners and the teacher provided a number of insightful comments. Of the 29 learners who answered Question 5, 44.8% indicated their slowness in using computers to be the major problem (Figure 4.5).

Figure 4.5 What difficulties did your team experience during the project?

It was the first time that pupils had used a computer and 44.8% indicated that they had difficulty in using computers while 20.7% experienced no difficulties in the project. This reflects the situation where four computers were shared among a class of 20 or more learners. Some (20.7%) became comfortable in using a computer. These were generally learners who typed quickly and so got hands-on experience with the computers while the rest observed the work in progress. Other themes that emerged showed interesting issues about the GTP work at NNSS (Figure 4.5), such as not knowing whether names of foreign learners were for a boy or girl.

From interviews it was evident that, learners felt that sometimes there were too many at one computer as there were only four computers at that time. Learners also experienced some technical problems that are summarised well by one learner:

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Eh! The difficulty I experienced was first I was not computer literate and many of us weren't and I with your help we are still learning there are many things that we don't know we are still learning. Remember when we typed the letter and when we clicked 'send' the computer sent a message back; [time is over login in again] and we lost the whole letter we had to type it again (Student C).

Losing data was definitely a technical problem, which was rectified later, and it did not affect the learners alone, teachers also experienced similar problems particularly with the new computer network.

Teacher interviews provided further insight into access problems at NNSS. When teacher A was interviewed he complained:

Oh! A lot of access problems. In fact what discouraged me a lot was accessing the computer at our school is quite difficult. You've got to run around the man who have got the key and when you've got a period and you want to take the kids to the computer lab, you've got to stand next to the door and wait for him to give his kids some work and after some time he would come back and give the keys and tell you that when the bell rings you go straight to class, he's so pre occupied with that. He knows that you will get, and also if you have a free period so that I utilise the entire period that I have allocated my time table too and it is difficult here at NNSS to have that so immediately when the bell rings you don't get the keys you know you have only about 20 minutes since our periods are about 55 minutes, when you get the keys late leaves little time, and after school you struggle to get the computer lab and you would have afternoon classes having their own project work. I think that if we could have a clear cut time table for the use of the computer lab and the keys are not with a very busy person that would be very fine. In fact let me further say that eh if we could have a special person somebody employed to clean and monitor the coming in so that the teachers sign and it could create a very good positive and conducive atmosphere to the use of the computer lab. We need to have staff member that does not have a teaching timetable because you end up chasing a fellow who has the key and even if it could be for instance you to hold the keys you also have, I cannot disturb you in your class to come and show me something. So we need somebody who does not teach but whose interest and focus is on the computer lab can monitor very strictly the coming in and out and has got the time table and slots of teachers (Teacher A)

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This comment is in line with the need for a specialised ICT teacher and / or support staff as suggested by Jones (2001) and Mostert (1992) as referred to in Chapter 2. The above problems will not be solved on the site mainly due to the lack of a person employed full-time to coordinate ICT at the school.

The technical and organisational difficulties faced by the teacher-researcher vary over the period 1999-2000. Concerning the GTP work, the teacher-researcher preferred to involve grade 11 learners because the topics on foreign trade seemed to integrate in the curriculum favourably. As a result every year a new group would be introduced to the GTP as the seniors joined grade 12. With demands on grade 12 learners, the teacher-researcher would not involve them in the projects. For the new group, more than 2 hours after school were spent familiarising them with the computers. At first in 1999-2000, the use of computer lab after school was sometimes chaotic, some teachers did not observe booking times and instead complained that the GTP was monopolising the lab. It was not uncommon to find more than two classes sharing the lab with each class attempting to use one of the four computers.

At NNSS the non-completion of the project was usually due to human factors. Teachers who were new at using email and did not check email regularly got discouraged when they found that their mailboxes were full of messages that needed forwarding to the learners. This process needed time and obviously teachers' commitment.

At the time of research, the ICT infrastructure was being developed. Technical problems did not have much effect as the teacher-researcher was innovative and was prepared to find alternative places, mainly at Rhodes University, where mail could be sent and received

without interruption of the project. However the organisational problems were serious at NNSS regarding access for:

- Learners
 - During school time
 - Learners who had not paid R50 for computer classes
 - Learners who had attended computer literacy classes and want more time with computers
 - The Internet and email classes from a wide group
- The teachers and
- Teachers and their classes

In conclusion, technical support to monitor the Internet running is now available through Rhodes University and it is the organisational issues and lack of time for teachers that restrict access to the available resources.

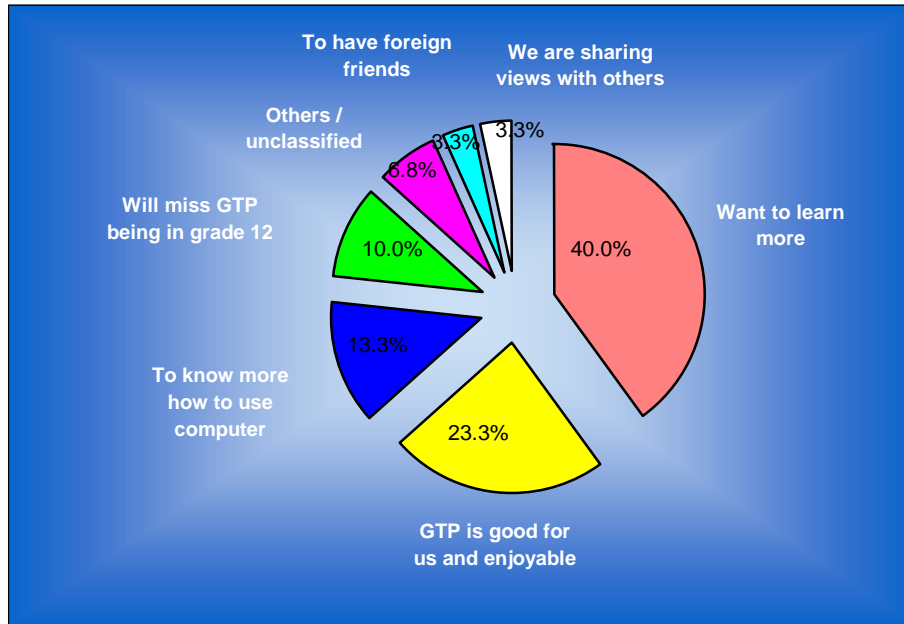
4.5 Favourable factors determining whether teachers and learners would participate in the future phases or not

In order to find out why the participants would get involved again in the future phases of the project, data was drawn from

- Learners' questionnaire Q11 (Appendix T)
- Learners' interviews with student B (Appendix L)
- Teacher A and
- From the teacher-researcher.

Of the 30 learners who answered Question 11, why they would participate or not participate in the future GTP, 40.0% expressed positive sentiments that they wanted to learn more through GTP and 23.3% maintained that the GTP was good and enjoyable.

Figure 4.6 Why would you participate or not participate in a future GTP?



Other emerging themes indicated that GTP helped them to learn to use computers (Figure 4.6). The learners’ interviews yielded some insight into why they would like to participate in future. Student B explained that the GTP was so enjoyable since they had chance to communicate with other learners from other countries and that it was the first time they were involved in a chat session.

Despite the overwhelming learner support for GTP at NNSS, it is usually the teachers’ lack of access and time that become a factor in influencing NNSS’ participation in the GTP.

Teacher A said that he wished to participate in the GTP themes that supported Civics

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Literacy as he had been tasked to launch Civics Literacy at NNSS. Furthermore he had dreams of developing a web site for the project that would be sponsored by Civics Literacy in South Africa (CLISA). This clearly shows how the GTP can expand teachers' horizons and encourage them to publish information gained from the GTP on a web site. Unfortunately access issues were not yet resolved and these dreams have yet to be converted into viable plans.

On the teacher-researcher's side, since the GTP's launch in March 1999, she has been facilitating the project at school for some of the following reasons:

- *She feels that there is enlightenment, she learns something new whenever she is with learners in the computer lab;*
- *It keeps her in contact with SchoolNet SA that once in a while sponsors her for the national educational conferences in South Africa;*
- *SchoolNet SA arranges training support for teachers, to which she is usually invited to attend on behalf of NNSS, she finds this very fulfilling and it has helped her to have grown technologically;*
- *The GTP supports her interest in Information Technology in Education;*
- *She makes use of the computing resources available at NNSS through the GTP;*
- *She facilitates international learning that is well structured, planned and supported by the Netherlands;*
- *The learners enjoy all the wonders of the computer and their happy faces encourages her as a teacher to carry on with the GTP;*
- *The successes the GTP and other projects receives publicity from outside the school, parents and the community that giving it up would not only let down the learners but the community as well; and*
- *Finally she enjoys creating learning opportunities for her learners (Teacher-researcher).*

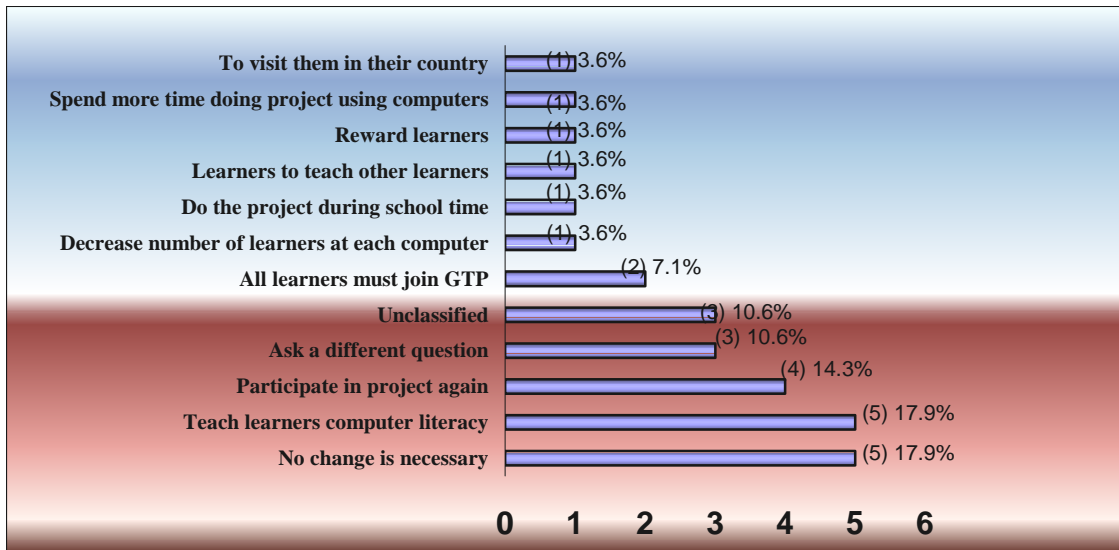
In conclusion, the learners have enthusiasm to participate in the GTP while the motivated teachers find it difficult to participate in the project due to issues of access and time constraints at NNSS.

4.6 How the GTP can be adapted to benefit the participants at NNSS

In order to establish how the GTP can be adapted to benefit the participants at NNSS, data was drawn from learners Questionnaire Q6, interviews with learners Student A & C (Appendix U and Appendix L respectively), interviews with Teacher A and the Teacher-researcher.

From the 28 learners who answered Question 6 concerning what should be done differently to provide further benefits next time, various themes emerged (Figure 4.7).

Figure 4.7 What should be done differently next time?



While 5 (17.9%) of the 28 learners felt that no change was necessary, another 5 learners (17.9%) felt that they needed more computer literacy courses. Furthermore Student A suggested that it should be: “... *easy to get on the Internet everyday not only doing projects*”. While student C suggested that: “...*teach all school children how to use the keyboard and how to operate the computer*”. The learners’ comments indicate that there should be an

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improvement in accessing the computer facilities at NNSS. This can be compared to teacher A's indication of the difficulty of access, and suggestion that a specialist ICT co-ordinator be appointed.

The need for learners to practice using computers was partially solved, with the arrival of sixteen more computers. Learners had to pay for training after school, which also gave them more time to practice their keyboarding skills and to gain confidence in handling computers. However, the need for payment did discriminate against those learners who could not afford the fee of R 50.00.

Learners' incompetence discouraged teachers who created more time after school, to train learners how to use computers and to guide their project work. An unfortunate situation arose where those who had the opportunity to use the computer laboratory thought that they did not have enough time to use the computers, while those who did not have access felt that they were left out. This situation led to restlessness at NNSS, as learners demanded a time slot in their timetable that would guarantee access for all.

Furthermore, from the teacher-researcher's point of view, stakeholders at NNSS saw GTP as an extra curricular activity that probably did not support the teaching and learning of the school curriculum. The fact that planning project work wasn't part of the teachers work programme hindered teachers' willingness to create time after school. This attitude confirms what Collis (1996) points out in her suggestion that online collaboration should be incorporated within teaching time. At NNSS it was not easy since the GTP demanded a lot

of time while contributing to a selected concepts of the school curriculum that needed to be covered in the given time.

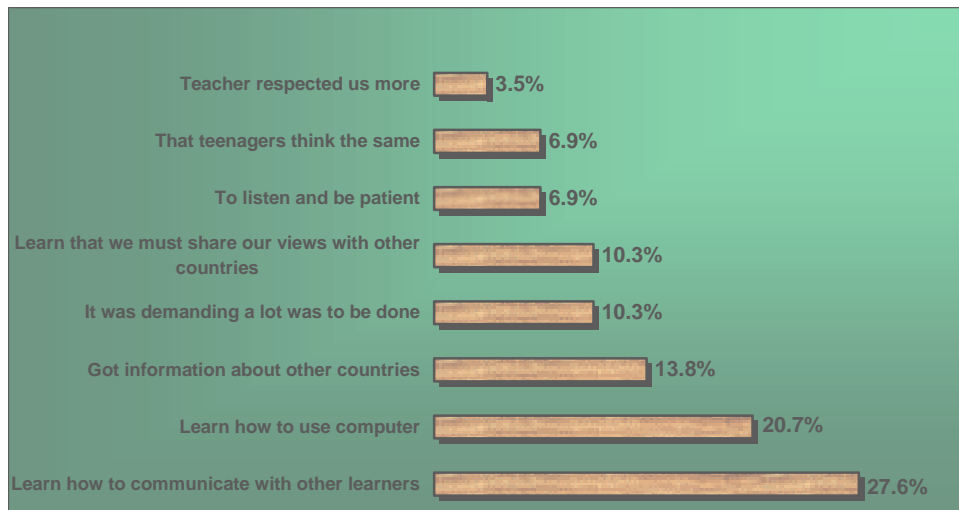
The adaptation of the GTP needs to include an initiative to plan more equitable usage of the computer facilities at school. In this way the participation in the GTP in particular might improve.

4.7 The impact of the GTP at NNSS

To determine the impact of the GTP at NNSS, data was drawn from learners' questionnaire Question 8 & Question 12 (Appendix V and Appendix W respectively) and the teacher-researcher.

4.7.1 Learners

Of the 29 learners who answered question 8: What did you learn from participating in GTP, 27.6% said that they learned how to communicate with other learners, and 20.7% learned how to use computers (Figure 4.8).

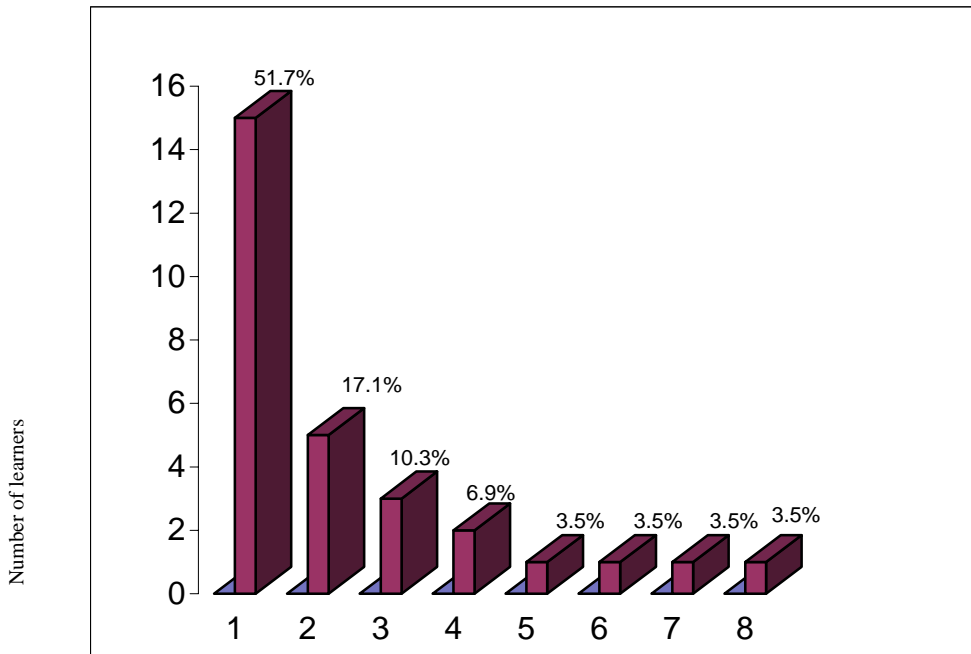
Figure 4.8 What did you learn from participating in the GTP?

Learners had no skills in using computers and the GTP gave them access to computers and the pleasure of commitment to the project. Learners who participated in the GTP had more time with computers as this was done mainly after school hours.

Learners also learnt interpersonal skills, as chat sessions are spontaneous. For example sometimes learners unknowingly asked sensitive questions such as: “What would you do if someone gave you AIDS?” The way other learners in the chat room reacted made all learners condemn questions that were not well thought out.

The final question that the students were asked was whether there was anything else that they wanted to raise. Various themes emerged that indicate the impact of the GTP at NNSS (Figure 4.9).

Figure 4.9 Is there anything else you would like to tell me about?



Legend

- 1 Enjoyed participating and GTP should go on
- 2 Would like to thank the teacher
- 3 Nothing more to say
- 4 Teachers should stop kicking learners out of the computer lab
- 5 GTP contributes to the school standards
- 6 Now have confidence in using computers
- 7 Want like to learn more
- 8 Would like to visit them

Figure 4.9 shows that over half the class (51.7%) indicated that they enjoyed the GTP and that it must go on at NNSS. It is pleasing that 17.1% expressed their appreciation for their teachers' effort to involve them in the GTP although 3.5% complained that teachers should stop evicting learners from the computer lab. This comment is related to the pressure on the available resources. It is not easy to afford all learners equal access to the available computers in a school that has a population of over 700 learners.

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The possible impact of the GTP is also detected by the teacher-researcher with learners who were successful after grade 12 and qualified for university entrance. Since 1999, one student has been studying software development and engineering at the University of Western Cape. Some other learners are studying information systems at various universities. Although the direct impact of the GTP is not measurable, these students' tertiary education interests are a possible indication that exposure to the computers at NNSS could have triggered an interest in computer related courses.

4.7.2 Teachers

The teacher-researcher did not only facilitate the GTP at NNSS but many more projects particularly the Planet Project where learners won 16 new computers for the school (Appendix C). As a school ICT coordinator, there was support from the staff, since she was exempted from extra curricula activities and recommended for coordinating ICT developments at school. This recognition, teachers' participation, and change of attitudes, appreciation and celebrations of achievements all indicated the impact of GTP at NNSS. The digital camera won by a GTP participating student (Appendix K) has resulted in the easy way for learners to include their pictures on their web pages. While communicating with learners from other continents NNSS learners enjoy being able to attach a personal photograph for their partners.

It can be concluded that the GTP had a positive impact at NNSS. It is the first time that learners have used computers and has provided a new experience for learners at NNSS.

4.8 Obstacles or barriers to GTP at NNSS

Data for this question was drawn from the teacher–researcher’s observations.

Although the community celebrated achievements arising from the GTP at NNSS, not all teachers were committed to the project or any form of collaboration. This could be as a result of insufficient training and lack of comfort in using computers. Furthermore new facilities were not fully accessible and the issue of preventing computers from breaking down or from becoming obsolete became a matter of concern to the administration. Later the fear of burglary of the new-state-of-art computers aggravated the matter of access after school hours and weekends.

Finally since the management did not recognise the GTP as a curriculum-based project as such, GTP work was not to be done during the normal teaching hours, but only after school hours a time that clashed heavily with other activities in which teachers were engaged. The teachers who participated in the project felt that this required them to sacrifice extra time to the GTP after a heavy day’s schedule. As a result teachers who welcomed the idea registered with enthusiasm but after week one of introductions would politely apologise and request the school coordinator to cancel their participation in the project. Some teachers registered and did not even begin the project. This compromises the project circle objectives, as the expected participants would withdraw at the stage when they could not be replaced. It is also the teacher-researcher’s perception that if the GTP or any other form of collaboration were accepted and incorporated into the teacher’s curriculum programme of activities with specified class periods reserved, a few more teachers would probably participate.

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An attempt to incorporate online collaboration has raised questions that it would lead to inconsistencies in teaching. For instance, if the grade 8A teacher does something extra that other grades e.g. 8B-8D are not involved in, and the different teachers teach the same subject, then surely this could cause unrest among learners. After the initial open access to the computers at NNSS, the school policy restricted computer laboratory access to only students that had undergone computer literacy training, despite the fact that monthly insurance and burglar alarm premiums were paid from the school fund. The above step resulted in most teachers not incorporating the use of computers and not even referring to the Internet, which had once been used by many teachers.

4.9 Summary

The chapter has elaborated on the findings of the study. The GTP's potential to support a school curriculum has been discussed. The teachers that participated found some resources helpful in teaching even other non-participating classes. In this way GTP enhanced the teaching and learning process. On the other hand GTP can hinder teaching as it imposes additional demands on teachers who are already overloaded. Interested teachers had to create additional time after school to make arrangements for learners to participate. Some technical and organisational problems, especially learning to use computer technology, required a lot of time and patience, which most novice teachers at computers did not have. The lack of a full time ICT school coordinator or support staff created access problems to the computer lab. It is however important to note that the presence of computers at NNSS triggered the use of CMC and the future of the GTP at NNSS is promising.

Chapter 5

Conclusion and Recommendations

Hey! In fact I have been captured by computers (Teacher A).

Conclusion and recommendations

5.1 Chapter overview

This chapter concludes the study by examining the limitations of the research, providing a summary of the findings and making recommendations based on these findings.

5.2 Limitations of the research

Even though these findings cannot be generalised to other schools, or remain valid at Nathaniel Nyaluza Secondary School (NNSS) in years to come, they do provide clear indicators of the current success of the Global Teenager Project (GTP) at NNSS. If NNSS was to be studied in the future use, staff development and technological changes may lead to a different CMC situation altogether. However, the results of the study can be used to indicate possible directions for the future use of CMC at NNSS and at other GTP sites in South Africa. Although the participation of NNSS in the GTP was constant over the period of 1999 to 2001, the learners' participation in the GTP could not be kept constant in this case study. Different grades, group size, and classes also varied as they participated in different environments. This variation in the respondents obviously influenced the general 'shape' of learners' responses.

5.3 Summary of findings and recommendations

The goal of the study was to assess how well collaborative online team projects support the teaching and the learning of the school curriculum with specific reference to the GTP. The study was based on the research questions below:

- 1 How well did the GTP relate to and support the school curriculum at NNSS?
- 2 How did the GTP enhance or hinder teaching and learning at NNSS?

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- 3 What were the technical and organizational difficulties that GTP participants faced?
- 4 What factors favoured teachers and learners to participate or not to participate in a future GTP?
- 5 How could the GTP be adapted to benefit the participants?
- 6 What was the impact of the GTP at NNSS?
- 7 What were the perceived obstacles or barriers of the GTP at NNSS?

Firstly, how well the GTP related to and supported the school curriculum at NNSS was considered. Most learners' perceptions of how participating in the GTP contributed to their schoolwork and, conversely, how the GTP may have interfered with schoolwork were elicited. Learners who were interviewed were asked to provide some examples of how the GTP contributed to their schoolwork while Teacher A elaborated on how easily the GTP could be incorporated into the curriculum and the teacher-researcher's observations helped to elucidate how the GTP related to and supported the school curriculum in her subject.

The conclusions drawn from the above responses showed that the **GTP supported the school curriculum**, especially through receiving responses from foreign partners to the class question from NNSS that linked directly to a section in their curriculum. The GTP's potential to support Outcomes Based Education curriculum is emphasised by the need for collaborative learning and teamwork in problem solving situations. This implies that teachers need to know more about how to facilitate online projects that foster communication and collaborative learning in their settings. For collaboration through CMC to be successful, the Department of Education would need to implement a comprehensive technology policy to support schools where computer resources and the

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Internet infrastructure are present. This policy would guide schools on how to utilise the available resources, by suggesting methods or strategies on how teachers can incorporate collaboration within their teaching, thereby integrating the activities within the curriculum and methods of assessing the learners' participation in the online projects. Delivering the resources to schools without a guiding policy leaves the use of computers as something peripheral to the main school curriculum.

Secondly, the study aimed to find out how the GTP enhanced or hindered teaching and learning at NNSS. Results were drawn from asking the learners how they thought the GTP helped or hindered their teachers and what learners learned from participating in the GTP. Teacher A was asked whether he was able to use knowledge gained from the GTP in the teaching process and what the additional demands on the work as a teacher were. Perceptions from the teacher-researcher also helped to elaborate on how the GTP can enhance or hinder the teaching and learning process.

The study shows that there is great potential for the GTP to enhance the teaching and learning process at NNSS through planning, learners' collaboration, processing data, analysing and making information available to the rest of the online group. Although the GTP came with additional demands for the teachers, **the project did not hinder the teaching process** but has demonstrated the potential to enhance teaching and learning. From the teacher-researcher's point of view, the GTP enhanced her teaching because she was able to use the responses from other countries to formulate group activities for the class, where each group had different sets of prices from different countries which they had

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to convert, analyse and report on to the rest of the class. Likewise, Teacher A had questions posed from other countries given as a homework activity for other classes.

Thirdly, in dealing with the technical and organizational difficulties that the GTP participants faced, the learners provided insight into the difficulties they experienced during the project while Teacher A elaborated on the organisational problems that hampered ICT usage at NNSS.

The study highlighted the need for continued technical support provided by the Centre of Excellence at Rhodes University to monitor the Internet. Access to the computer laboratory is restricted to only a few learners who have undergone an optional computer literacy course. This restricted access has hampered the teachers' plans to use ICT to enhance their teaching. This further restricts learners' use of the innovation that was intended for their benefit.

To improve participation in the GTP at NNSS, it is necessary to have a policy that embraces every stakeholder. This would possibly include systematic computer literacy lessons that support teachers and learners and enable them to become comfortable in handling computers. The biggest problem that faced teachers at NNSS was to find enough time to acquire technology skills. Therefore, the Department of Education should encourage schools to schedule time for teacher technology workshops on workdays in order to encourage teacher development. As long as technology is not made a priority at NNSS, the successful use of computers, not only through online collaboration but also through supporting classroom instruction, will remain in the hands of a few teachers.

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Fourthly, in considering factors that affect whether or not teachers and learners participate in a future GTP, findings showed that the learners were enthusiastic about participating in the GTP while the **motivated teachers found it difficult to participate in the project because of issues of access and unfavourable time constraints** at NNSS.

To overcome the above constraints, the Department of Education needs to develop a policy on CMC and all forms of collaboration that would be recognised in the existing curriculum, teaching and assessment strategies. If it is all left to the work of SchoolNet SA to “lure” interested teachers to participate in such international collaborative projects, CMC will not be fully incorporated in the school curriculum. In addition, the Department of Education needs to provide support staff in schools where computer resources have been placed, so that all learners can have freedom of access to the computer laboratory during school hours and after school times. The support staff would need clear job descriptions, which show how to support all teachers and learners, similar to the role of a librarian in the library. At present the responsibility for the management of the computer laboratory falls on the teacher-researcher who has a full timetable. This is not an ideal situation for her personally and professionally she does not have time to ensure that the resources are being fully utilised by the learners.

Fifthly, considering how the GTP can be adapted to benefit the participants, learners and teachers were asked what should be done differently for the next online Learning Circle phase. The findings showed that the adaptation of the GTP at NNSS needed to include an **initiative to plan for more equitable usage of the computer facilities at school**. In this way the participation in the GTP in particular might include more teachers.

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Despite the fact that the first computers arrived at the school in July 1998, to date, a good number of teachers are still 'scared to death to use computers' so much so that they even detest them. Teachers who went for training either regard the use of computers as time consuming or they still have insufficient confidence to take learners to the computer laboratory in order to practice what they gained from training. Although teachers use the restricted access of learners to the computer laboratory as an excuse, this leads to a non-functioning computer laboratory at NNSS. As recommended by Hawkrigde *et al* (1990), in order to assist teachers to overcome the above situation, it is better to offer computer awareness courses within a formal curriculum. He further claimed that these courses could be offered with limited computing resources and that the CMC could form part of such an option in a school curriculum. The IEARN emphasises the fact that teachers should act as facilitators to plan how projects can fit into everyday schoolwork and how learners can receive credits for the work done. This would overcome the issue of unfavourable time constraints on the teachers. This requires the National Department of Education to introduce the post of 'technology teacher' in schools where resources have been placed so that the support is available to all the teachers and the learners.

Sixthly, the impact of the GTP at NNSS was assessed through posing a question to learners concerning what else they would like to raise about the GTP.

It can be concluded that the **GTP had a positive impact at NNSS**. It was the first time that learners had used computers. This provided them with a new experience that would linger for a long time in their lives. As indicated by Ho (2000), analysis of electronic messages shows the maturity in pupils' cognitive development in the type of questions posed.

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Another positive effect resulting from the GTP at NNSS has been the introduction of a two-week computer literacy training course with the help of assistants from outside the school. Unfortunately, the school's management felt that the future of such training should be left in the hands of learners but monitored by the school principal and the school coordinator. The reason given to justify this decision was that it was quite expensive for the school to continue hiring the services of assistants from outside.

The GTP helped the school to think about the vision of ICT at NNSS. Table 5.1 shows the ideal path that NNSS hopes to follow on its way to the successful incorporation of computer usage in the curriculum.

Table 5.1 The envisaged road of ICT development at NNSS

Pre ICT stage 1938-1998	Stage 1 1998-2000	Stage 2 2001 – to date	Stage 3	Stage 4	Stage 5 [Dream stage]
No computers	1-6 computers	7-30 computers	31 – 80 computers	80 – 150 computers	151 + computers
No building to host comp laboratory, only wishful thinking.	May be donated for purposes of collaboration /acquired computers Emphasis: computer literacy Usage: Administrative work Email for collaboration. Internet Problems: Too few, access to all learners not possible. No support staff and technical staff Additional financial burden No software support Computer-learner ratio 1:300	More acquired or donated, Internet linked, most computers housed in a computer laboratory Emphasis: More computer literacy to more learners who can pay No support staff identified, still no technical staff at school. In a classroom situation about 2-3 learners share one computer Problems: Teachers still reluctant to train (optional extra) No formal timetable breakdown of computers causing a big financial burden to the school. Computer-learner ratio 1:40	One learner per computer in a classroom situation Under teacher observation Competitiveness with other schools Higher status All learners can have access but fewer hours a week Timetable clearly defined, Learner computer ratio 1:10 Clear digital divide on site between teachers who can use the resources and those who are still reluctant or have rejected computers as essential to be incorporated in the curriculum	One learner per computer in a classroom situation Access to all learners with more hours a week, computers used for preparing learners assignments, collaboration and email, free access after school, formal timetable, computer science offered to a few at SG level and, support staff available on site technical support available on site Learner computer ratio 1:4	One learner per computer in a classroom situation A local Area Network (LAN) fully developed with computers in a library A computer in a classroom linked to the Internet All learners have equal access Learner computer ratio 1:2 All staff would be expected to be computer literate and can use computers to support their curriculum!

Designed by the school ICT coordinator NNSS 2001

Chapter 5

The above matrix shows the possible impact of an ICT vision path for NNSS. The school can currently be classified as being in stage two; it is not easy for a school with a disadvantaged background with minimal parental support to develop the ICT structure through stages three to five.

Seventhly, the study attempted to identify the obstacles or barriers to the GTP at NNSS. Unfortunately, the participation in the GTP at NNSS, and any form of computer access was restricted to students who had undergone computer literacy training, despite the fact that monthly insurance and burglar alarm premiums were paid from the school fund, to which all students contributed. The above step resulted in most teachers not incorporating the use of computers and not even referring to the Internet, which had once been used by many teachers. Stakeholders at NNSS continue to see **collaboration as an extra curricular activity** and this is contrary to the objectives of IEARN for developing international collaborative learning that can fit within school time.

In summary, as indicated by Koo (2001), Ho (2000) and Gonglewski, Meloni and Brant (2001), the success of online projects rests on the attitude and motivation of the teachers involved. This is supported by the teacher-researcher's involvement, and her monitoring of the learning process that was a critical factor for the effectiveness of CMC based projects at NNSS. Her support of Teacher A, and the learners' commitment to come after school hours was an indication that the GTP could be effectively implemented at NNSS.

Post script

The study covered a period from March 1999 to September 2001. Before going to the print, changes took place at NNSS in early 2002. These include the discussion and analysis of the school's financial statement for 2001 that reflected an expenditure on the computer laboratory of 10% of the school funds collected from all learners. Concerns were raised and this triggered the staff to question whether access restricted to a few learners who completed an optional program was a fair way to utilise the resources. Stakeholders proposed the formation of an IT committee for 2002 that would develop an IT policy for the school, which would potentially give all learners equal access to the computer laboratory. The teacher-researcher's expertise was recognised and she was mandated to coordinate the process of drawing up a draft policy that would suit all interested users. This resolved the conflict that had lasted for seven months dating back from May 2001 when the sixteen new computers were installed.

In addition, new developments have taken place in the GTP. Now every school in South Africa that completed the ten-week Learning Circle activities receives R400 as a contribution towards the GTP activities at school including telephone and printing costs.

These developments make the future of GTP and other form of CMC at NNSS promising. There are already learners who have indicated interest in participating in the Think Quest Internet Challenge, an international as well as African and South African web development competition that is CMC based. Furthermore an idea of forming a school's IT club is favoured in order to develop learners talented in the field of IT professionals.

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I think the GTP helped my teacher big time because she even helped us to know how to use a computer so that she can learn how to teach us (Student B).

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Appendices

*...the typing skills and general computer use if they [learners] could capture them it would be easy to communicate, they could write something down and you would see that they would take a very long time and sometimes time is limited and using a lot of my extra time after school
(Teacher A).*

OVERVIEW

Learning Circles September 2001

My Life 1

Mylife1sept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Lycium of modern language and computer science	Pegza Iulia	pegza	ml11	Moldova
College of foreign language and internat. business	Elenciuc vera	elenciuc	ml12	Moldova
Sikhululekile HS	Nkele Yvonne Makhafola	Nkele	nkele/ ml13	South Africa
Lundi Park Prim	Sibonisiwe Maphosa	maphosa	ml14	Zimbabwe
Refrmed HS	Lorincz Edit	lorincz	ml15	Romania
Zengeza 3 HS	Chipo Leah Muchero	chipo	ml16	Zimbabwe
Preili State Gymnasium	Anitra poplavska	anitra	ml17	Latvia
Busoga College Mwiri	Ndikwani Juliet	Juliet	ml18	Uganda
Kintante Hill School	Ocitti Mathew	Mathew	ml19	Uganda

My Life 2

Mylife2sept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcodee	Country
Studium Language Study Centre	Dolintse Lidia	dolintse	ml21	Moldova
Maria Louw HS	Werner von Schaeffer	schaeffer	ml22	South Africa
PCSG de Nuborgh	Pauwels en Schuring	pauwels	ml23	Netherlands
Kraslava Varaviksne School	Irena Bovtramovicha	irena	ml24	Latvia
Kwayedza HS	Leonard Mayowe	mayowe	ml25	Zimbabwe
Mvurwi SS	Patricia Zona	zona	ml26	Zimbabwe
Lycium of modern language and computer science	Maiana Adomnitsa	adomnitsa	ml27	Lyceum
Ntare School	Winfred Mwebaza	Winfred	ml28	Uganda
Kings College	Ssenkubuge Lawrence	Lawrence	ml29	Uganda

HIV/AIDSHIV_AIDSsept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Ombogo Girls Academy	Mary Adhiambo	adhiambo	hiv1	Kenya
Mt. Selinda School	Christopher Makurangei	makurangei	hiv2	Zimbabwe
Mkoba 1	Abigail Moyo	moyo	hiv3	Zimbabwe
Lycium of modern language and computer science	Criulean Silvia	criulean	hiv4	Moldova
Lycium of modern language and computer science	Sperchiuc Tatiana	sperchiuc	hiv5	Moldova
Hastings high School	Mike Engle	engle	mike/hiv6	USA
UPSS	J. Aboradze-Hayford	aboradze	hiv7	Ghana
Micha-Kgasi	Mmasentene Gaasenwe	mmasentene	hiv8	South Africa
WASS	Chris Kwei	kwei	hiv9	Ghana
Accra Academy	Edward A.K. Tetteh	tetteh	hiv10	Ghana

Youth EmploymentYEsept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Mpopoma HS	Jabulani Chirinda	chirinda	ye1	Zimbabwe
Koru Girls HS	M. Konje	konje	ye2	Kenya
Lycium of modern language and computer science	Leu Valentina	leu2	ye3	Moldova
College of foreign language and international business	Murzina Marina	murzina	ye4	Moldova
Gullitschool	Dors Samuel	dors	ye5	Surinam
Nathaniel Nyaluza HS	Joy Turyagyenda	joy	joy/ye6	South Africa
Magwegwe SS	Canisius Ngwenya	canisius	ye7	Zimbabwe
Tshukudu HS	Adolphina Marwale	marwale	ye8	South Africa
Rescue Mission Resource Centre	Mawuli Ziggah	ziggah	ye9	Ghana
Matero Girls HS	Mbewe and Banda	mbewe	ye10	Ghana

Leisure

leisuresept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Vocational Training School – Profit	Chiriliuc Andrei	Chiriliuc	leisure11	Moldova
College of Foreign language and international business	Tatiana Fesina	Tatiana	leisure12	Moldova
Gimnazija Franca Miklosica Ljutomer	Sonja Fercak	Sonja	leisure13	Slovenia
Sikhululekile HS	Makhafola Nkele Yvonne	nkele	nkele/ leisure14	South Africa
Mvutu SS	Ntandokayise Ncube	Ncube	leisure15	Zimbabwe
Vhembe HS	Smutha Amen	Smutha	leisure16	Zimbabwe
Hastings HS	Mike Engle	engle	mike/leisure17	USA
Kintante Hill School	Twinomuhwezi Musimenta	Musimenta	leisure18	Uganda
Mengo Senior School	Lucy Banda	Lucy	leisure19	Uganda
Ashanti Goldfields Junior Sec. School	Isaac Kusi Newton	Isaac	leisure110	Ghana

Health

Healthsept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Chinhoyi No.2 HS	Justine Mupinda	Justine	health1	Zimbabwe
Lycium of Modern language and computer science	Ghirici Liudmila	Ghirici	health2	Moldova
Studium Language study center	Terzi Ecatarina	Terzi	health3	Moldova
Aggrey SS	Atta Kwame	Kwame	health4	Ghana
LBGO Latour School	Ursula Degenaar	Ursula	health5	Surinam
Rio Tinto SS	Sylvester Mandisodza	Sylvester	health6	Zimbabwe
Nathaniel Nyaluza HS	Joy Turyagyenda	Joy	joy/health7	South Africa
Kraslava Gymnasium	Velta Bertina	Velta	health8	Latvia
Kibuli Secondary School	Walugere Richard	Richard	health9	Uganda
Kintante Hill School	Olong Samuel Joseph	Joseph	health10	Uganda

Globalisation 1

Glob1sept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Hastings HS	Alvina Griswold	Alvina	glob11	USA
Lycium of Modern language and computer science	Lungu Marana	Lungu	glob12	Moldova
College of Foreign language and international business	Passec Olga	Passec	glob13	Moldova
Sakubva 1 HS	Tichaona Mukonda	Mukonda	glob14	Zimbabwe
St. joseph's SS	Ngoni Murimba	Ngoni	glob15	Zimbabwe
Shaaban Robert SS	Stephen Thomas	Thomas	glob16	Tanzania
Reitumetse HS	Lesiba Mamabolo	Lesiba	glob17	South Africa
Rhodes Park	Phillip Jere	Jere	glob18	Zambia
Reformed HS–Sf. Gheorghe	Maria Peto	Peto	glob19	Romania
Ghana National College	Kwaku Dumfeh Appiah	appiah	glob110	Ghana

Globalisation 2

Glob2sept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Lycium of Modern language and computer science	Natalia Vitsinskaya	natalia	glob21	Moldova
Studium language study centre	Malai Sergiu	Malai	glob22	Moldova
Holy Child School	E. Dei	Dei	glob23	Ghana
Mucheke High School	Lickias Chitanana	Chitanana	glob24	Zimbabwe
Soshanguve High School	Leonard Sidimela	Leonard	glob25	South Africa
Minda Secondary School	Kethan Dube	Kethan	glob26	Zimbabwe
Matero Boys	Collins Chinkalata	Collins	glob27	Zambia
Baobab College	Muhammed Ali	Muhammed	glob28	Zambia
Ntare School	Dinah Nakabuye	Dinah	glob29	Uganda
Ferrovialia	Julio Mendoza	Julio	glob210	Bolivia

Culture 1Cult1sept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Studium language study centre	Chicu Ecaterina	Chicu	cult11	Moldova
Hastings High School	Alvina Griswold	Alvina	griswold / cult12	United States
St. Andrews Junior Secondary School	Andrew Owusu Koranteng	korantengc	cult13	Ghana
Mfantsipim School	S. Afful	Affulh	cult14	Ghana
Nagy Mozes High	Istvan Budai	Istvan	cult15	Romania
National Grammar School Nike Enugu	O.E. Omeje	Omeje	cult16	Nigeria
Mt. Darwin Secondary School	Masuni Chirwa	Masuni	cult17	Zimbabwe
Mtoko Govt High School	Nathan Matemera	Nathan	cult18	Zimbabwe
Busoga College	Kutegana Charles	Charles	cult19	Uganda
Namilyango College	Frank Lujemwa	Frank	cult110	Uganda

Culture 2Cult2sept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Dziwarerkwa 1 HS	Gorden Mutungwazi	Gorden	cult21	Zimbabwe
Kraslava "Varaviksne" School	Vladimir Bovtramovich	Vladimir	cult22	Latvia
Wesley Girls High School	A. Twum	Twum	cult23	Ghana
Hooghuislyceum	Johan Las	Las	cult24	Netherlands
St. Joseph College	Winifred Ayimaa-Yeboah	Winifred	cult25	South Africa
Shri Laksmischool	Dwarkasoer	Dwarkasoer	cult26	Surinam
Khalanyoni SS	T. Ndhlovu	Ndlovu	cult27	Zimbabwe
Hastings HS	Mike Engle	engle	mike/cult28	USA
Lycium of Modern language and computer science	Gridasova Olga	olga	cult29	Moldova
Kings College Buddo	Margret Mbalule	Margret	cult210	Uganda

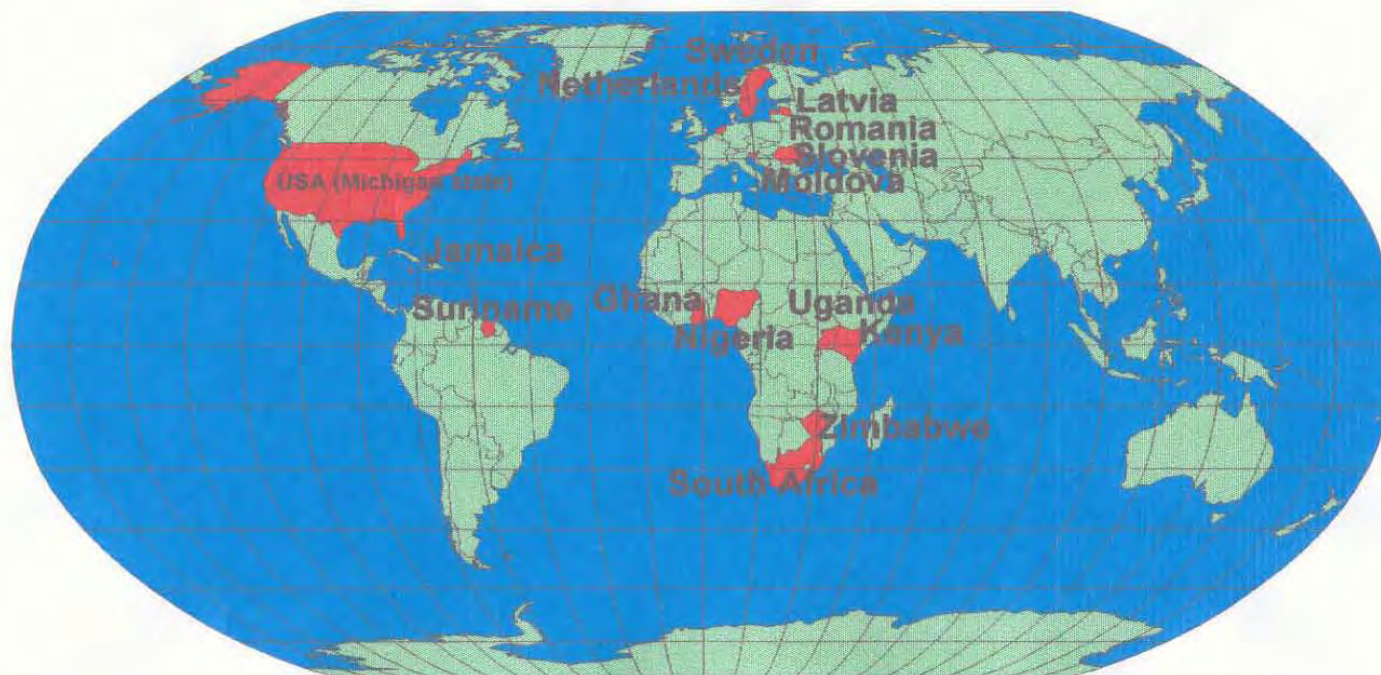
NatureNaturesept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Chipadze High School	Stephen Vhenya	Steven	nature1	Zimbabwe
Kotwa Secondary School	Munyaradzi Zvinavashe	Munyaradzi	nature2	Zimbabwe
Lyceum of Modern languages & computer Science	Bacoi Irina	Bacoi	nature3	Moldova
Studium language study centre	Grodzievskaya Elena	elenasd	nature4	Moldova
Reformed High School Sf. Gheorghe	Laszlo Gagy	laszlo	nature5	Romania
Reitumetse High School	Percy Sepeng	Percy	nature6	South Africa
		Percy2	nature6	
Jitegeme (JKT) High School	Ludovic Mabada	Ludovic	nature7	Tanzania
St. Augustines College	S. Afful	Afful	nature8	Ghana
West Africa Secondary	Emmanuel Ahugah	Emmanuel	nature9	Ghana
Busoga College Mwiri	Kisame Michael	Kisame	nature10	Uganda

Human RightsHRsept2001@spitsbergen.evident.nl

School	Naam	Loginnaam	Password/ schoolcode	Country
Lyceum of modern language and computer science	Kirvas Alla	Alla	hr1	Moldova
College of foreign language and intern. business	Gorashchenco Marina	Gorashchenco	hr2	Moldova
Madina Islamic School	Happy Kogbor	Korgbor	hr3	Ghana
Hastings High School	Mike Engle	engle	mike / hr4	United States
Sinethemba Senior Secondary School	Ethel Thembeke Mqambeli	Ethel	hr5	South africa
Hooghuislyceum TBL	Jose van Heeswijk	Jose	hr6	Nederland
Mutare Girls High	Clem Falbo	Clem	hr7	Zimbabwe
Hwedza High School	Ronald Chikati	Ronald	hr8	Zimbabwe
Makongo High School	L.J.M. Sanga	Sanga	hr9	Tanzania
Kibuli Secondary School	Kiggundu Emmanuel	Kiggundu	hr10	Uganda

The GTP Countries September 2001



Grocott's Mail

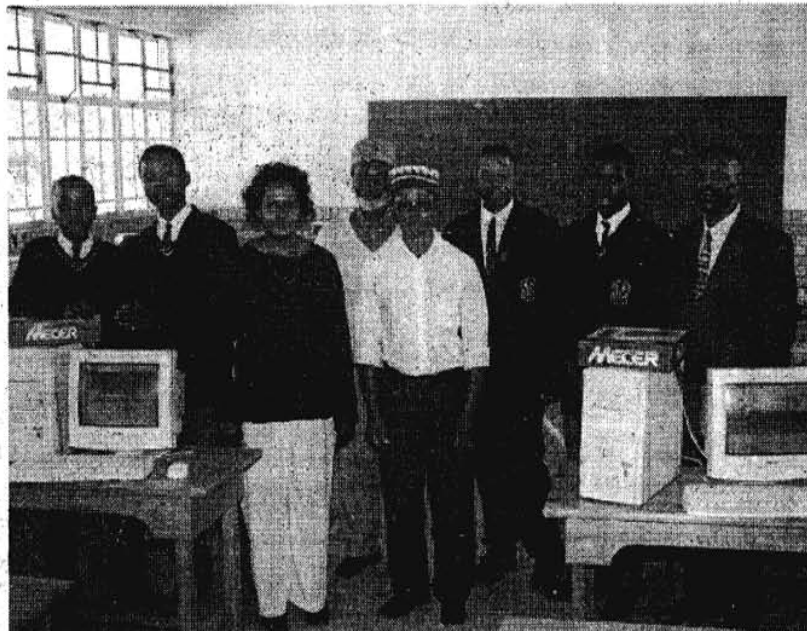
Friday, May 18, 2001

Vol.132 No. 38

South Africa's oldest family newspaper,
established 1870, incorporating
The Graham's Town Journal,
1831-1920
'Liberty and Progress'



R1.50



Standing proudly amidst their 16 new computers are Mfundo Mtwa, Bongani Patrick Ngeleza, Joy Turyagyenda, business economics teacher and IT director, Jamani Kosi (deputy chairperson of the student governing body), Mxoleli Sulo (chairperson), Siyanda Nhlokwana, Masthawe Tukulula and Mr WW Mushwana, school principal and their mathematics teacher who had trained the boys in excelling with EXCEL skills.

Top Nyaluza students win 16 computers

NATHANIEL Nyaluza High School boasts 16 state of the art computers won by four pupils in a world-wide online competition hosted by Planet Project.

Mfundo Mtwa, Bongani Nge-lezi, Siyanda Ntlokwana and Masthawe Tukulula took part in the largest online poll for participants aged 12 to 18 years, presented by 3 COM, an international networking company, in collaboration with Schoolnet SA.

Business economics teacher and the IT director at Nyaluza Joy Turyagyenda stated that Nathaniel Nyaluza High School was the only school in the Eastern Cape that qualified among the selected top ten. Other schools were from Gauteng, Western Cape, Orange Free State and North West Province.

The requirements were that learners take part in an online planet poll; monitor the change of data over a period of the poll (four days); use computers to find the best graphical method of representing data; compare themselves with learners from all over the Earth

Planet and their countries with others; each learner had to submit a 500-word report describing their experiences including telling stories with statistics.

High speed internet connectivity for the computers is provided by the Computer Science Centre of Excellence in Distributed Multimedia. This Centre is hosted by the Computer Science department at Rhodes University and is sponsored by Telkom, Dimension Data and Lucent Technologies, and THRIP.

In their reports the learners thanked Professor Cheryl Hodgkinson of Rhodes University for allowing them the use of the computer laboratory at the Rhodes Education department when electricity had been cut off at their own school.

"We learnt that, when opportunities are available, we have to stand up and compete by offering our best skills," said the students, "and we also discovered that we have what it takes to be the best in the country."

Daily Dispatch, Friday, May 18, 2001 — 11

Nyaluza learners win 16 computers

GRAHAMSTOWN — Computer mania hit Nathaniel Nyaluza High School here on Wednesday when 16 computers were installed at the school after four pupils honoured their school by winning the computers in a worldwide online competition hosted by Planet Project.

The three Grade 12 and one Grade 11 learners who won the competition were: Mfundo Mtwla, 16, Bongani Ngeleza, 18, Siyanda Ntlokwana, 17, and Matshawe Tukulula, 16.

The competition required the pupils to use graphics and statistics to describe what it was like to be a human being in the new millennium.

An excited Tukula said it was a wonderful experience.

"We didn't find the competition difficult because our maths and business economics teachers prepared us very well," exclaimed an enthusiastic Mtwla.

School principal Washington Mushwane said he hoped the pupils' achievements would inspire the others to believe in themselves.

"We are very proud of the boys because this goes to show that under-privileged pupils can achieve what privileged pupils can achieve."

Mushwane said the computers would also be used by the community. Business economics teacher and the IT director at Nyaluza Joy Turyagyenda said: "Information technology is very important and we have to encourage everyone to be part of the IT boom."

Turyagyenda thanked Rhodes University for sponsoring them with the Internet connection and hosting the pupils when Nyaluza's electricity was cut-off. — ECN

Ilizwi lase Makana

Friday, October 26, 2001 No. 10 Supplement to *Gracott's Mail*



Dr Mary Knowling fourth from left and those who helped with the arrangements of the "tea party" are pictured with some of the invited guests: Washington Mushwana, Jimmy Mullins, Marion Danckwerts, Prof George Euvrard, Dr David Woods, Prof Cheryl Hodgkinson, Joy Turyagyenda, Prof Michael Whisson, Lorraine Mullins and Richard Buckland. Dr Knowling said afterwards that she wished to thank DSG for providing transport for the pupils and to her staff for their contribution in making the afternoon such a memorable event.



Taking a moment away from the delicious chocolate cake are from the left, Prof Cheryl Hodgkinson (deputy head of the education department and information communication technology lecturer), Washington Mushwana (principal), Dr Mary Knowling (hostess of the "tea party"), Dr David Woods (Rhodes vice-chancellor), prize-winning pupils Masthawe Tukulula, Patrick Ngeleza, Mfundo Mtwa, Siyanda Ntlokwana and Ms Joy Turyagyenda (teacher and school IT co-ordinator).

Prize-winning Nathaniel Nyaluza pupils honoured

NATHANIEL Nyaluza High School pupils were provided with a scrumptious "tea party" by Dr Mary Knowling on Friday afternoon 12 October in honour of the four pupils who recently won 16 computers in an international Internet competition hosted by Planet Project.

Mary Knowling (Grahamstown citizen of the year) paid tribute to their resourceful and dedicated business economics teacher and IT director Ms Joy Turyagyenda,

their supportive principal Mr Washington Mushwana and 26 other Nyaluza pupils currently involved in another online learning project - the Global Teenager Project.

In the original Planet Project the pupils had analysed information submitted by scholars from all over the world via the Internet.

The Nyaluza team worked on how pupils get to school, discovering that 87 percent of Chinese pupils go by bicycle, while most

South Africans who responded went by car.

Rhodes Education Department staff members, Prof George Euvrard and Prof Cheryl Hodgkinson, were also thanked for their support in providing computer access for the pupils.

Unfortunately two other Rhodians who set up the Internet for Nyaluza, Alfredo Terzoli and Guy Halse from computer science, were not able to be present.

THE GLOBAL TEENAGER PROJECT

Learner's interview schedule

September 2001

.....

Good afternoon, thank you for agreeing to this interview about the GTP that you participated in.

- 1 I would like you to provide some examples of how participating in the GTP contributed to your schoolwork.
- 2 Provide some examples of how you thought the GTP helped or hindered your teacher?
- 3 Give me some specific examples of what you learned from participating in the GTP?
- 4 Describe some of the difficulties you and your team experienced during the GTP?
- 5 What exactly made the GTP so enjoyable?
- 6 What exactly made it so unpleasant to participate?
- 7 How would you like to see the GTP operate in future?

~~~~ THANK YOU SO MUCH FOR YOUR TIME ONCE AGAIN ~~~~

## THE GLOBAL TEENAGER PROJECT

Teacher's interview schedule

September 2001

\*\*\*\*\*

Good morning, thank you for agreeing to the arrangement of this interview. When a question is not clear please feel free to ask for clarity.

1. When did you participate in the Global Teenager Project?
 

|                       |                              |
|-----------------------|------------------------------|
| a. March to June 2001 | d September to December 2000 |
| b. March to June 2000 | e September to December 1999 |
| c. March to June 1999 | f September to December 1998 |
  
2. Did participating in the GTP enhance your teaching?
3. At any other moment e.g. with other classes, have you made reference to knowledge gained from the project?
4. If yes, give me a few examples?
5. What problems did you experience during the project?
6. What are the difficulties in incorporating collaborative online team projects within the curriculum?
7. What technical difficulties did you experience during the project?
8. Did participating in the project make additional demands on your work as a teacher?
9. What are the perceived benefits of involving your learners in the GTP?
10. Would you like to involve your learners again in the future phases?
11. If no, what did you not like during the project?
12. Any suggestions that can make the GTP different in future?
13. Is there any additional information that you would like to talk about?

**Thank you so much**

\*\*\*\* END \*\*\*\*

# THE GLOBAL TEENAGER PROJECT (GTP)

Learner's Questionnaire

September 2001

Grade \_\_\_\_\_

Dear Learners, your completion of this questionnaire will help to assess the effectiveness of the Global Teenager Project at Nyaluza High School and find out how best it can benefit learners who participate. Indicate with X or ✓ you may check more than one option that applies. The rest of the questions express yourself as openly as you can feel.

1 When did you participate in the Global Teenager Project?

- |                           |                          |                                   |                          |
|---------------------------|--------------------------|-----------------------------------|--------------------------|
| <b>March to June 2001</b> | <input type="checkbox"/> | September to December 2000        | <input type="checkbox"/> |
| March to June 2000        | <input type="checkbox"/> | <b>September to December 1999</b> | <input type="checkbox"/> |
| March to June 1999        | <input type="checkbox"/> |                                   | <input type="checkbox"/> |

2 Other than in the GTP when do you usually use computers? Tick all that apply.

- |                                  |                          |                        |                          |
|----------------------------------|--------------------------|------------------------|--------------------------|
| <b>In classes with teachers</b>  | <input type="checkbox"/> | After school at school | <input type="checkbox"/> |
| <b>When doing other projects</b> | <input type="checkbox"/> | After school           | <input type="checkbox"/> |
|                                  |                          | E.g. at home,          |                          |
|                                  |                          | Rhodes educ. lab,      |                          |
|                                  |                          | somewhere else         |                          |

3 What did you enjoy most in the project?

.....  
 4 What did you least enjoy about the project?  
 .....  
 .....

5 What difficulties did your team experience during the time of the project?

.....  
 .....

6 What should be done differently next time?

.....  
 .....

7 How do you think the GTP helped or hindered your teacher?

.....  
.....  
.....

8 What did you learn from participating in GTP?

.....  
.....  
.....

9 How did participating in the GTP contribute to your schoolwork?

.....  
.....  
.....

10 How did participating in the GTP impact on your schoolwork?

.....  
.....

11 Why would you participate or not participate in the future GTP?

.....  
.....

12 Is there anything else that you would like to tell me about?

.....  
.....  
.....

~~~~ THANK YOU SO MUCH FOR YOUR RESPONSES ~~~~

Learning Circle Teacher Guide



Original author: Margaret Riel
Adaptation: Lisette Gast, Bob Hofman

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Welcome to the Global Teenager Project!

Dear teachers.

Before you lies the teacher guide for the third round of Global Teenager Learning Circles. This teacher guide will explain to you what the Learning Circles are and how these Circles can help you integrate the use of email and Internet in your curriculum.

On behalf of the Global Teenager, a project of the International Institute for Communication and Development (IICD) and our local partners, SchoolNet South Africa, World Links for Development Program, Internet Society of Ghana, Rescue Mission Ghana, Jamaica Computer Society Education Foundation, PassNet Consultants, Amöba, Mutare Technical College, SchoolNet Uganda, ICT&E and Foundation Ayni we would like to welcome you to the Global Teenager Project. Together, the above-mentioned organisations have worked to set up a network that links students all over the world in an online community.

Learning Circles are highly interactive, project-based partnerships among a small number of schools located throughout the world. Each session is 10 weeks. During these weeks the circle is active, Ebenezer will be on-line as a facilitator to guide, assist and answer possible questions. We want to stress that joining a Learning Circle means a commitment. If you follow the few rules that are explained in this guide and actively participate during the 10 weeks of this program, you'll be sure to experience a new way learning.

We aim to make your participation in the Global Teenager Project as useful as possible. That is why we give you the opportunity to develop additional projects as well. Perhaps you would like to do a videoconference with a school in another country, or build a website with several students from around the world. Your initiatives get space to grow on the Global Teenager Project!

Your comments and suggestions are welcome at all time at: globalteenager@iicd.org.

Sincere greetings

Lisette Gast
Global Teenager co-ordinator

Ebenezer Malcolm
Learning Circle facilitator

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Introduction of the 'Learning Circle '

Welcome to a new way of enriching classroom learning! During the ten weeks you will learn how to use telecommunications to enhance your curriculum activities and motivate learning. The interaction between you and the other participants in your Learning Circle will be something you help to create. It will be a team effort resulting from the co-operation between teachers and students who might otherwise never have had the opportunity to interact. We call these teams "Learning Circles."

In this guide we use the word "class" to refer to all of the students at your school who will be participating in the Global Teenager Learning Circles. While the norm may be one teacher with a class of 30 students, in some schools the "class" will be a computer club, or a set of students drawn from different classes with a resource teacher, or a small number of classes taught by the same teacher (for example, in a computer lab). We will provide suggestions throughout this guide to facilitate diverse participation.

Here is a brief overview of the activities your 'Learning Circle' will be involved in:

Overview of Global Teenager Project 'Learning Circle' Activities

Week 0

Getting ready; preparations in the class, test of IICD E-mail list server

Week 1

Learning Circle partners meet each other by a Teacher-Chat and by exchanging Teachers and Class Letters.

Weeks 2-3

Each class sponsors one question for the Learning Circle.

Weeks 4-5-6

Students respond to all of the questions in the Learning Circle.

Weeks 7-8-9

Students prepare a summary of the responses to their sponsored question for the 'Circle Publication'. Send summary to Learning Circle partners

Weeks 10

Closing the Learning Circle.

Learning Circle Goals

The purpose of this guide is to establish some common goals, to share ideas and suggestions from other teachers, and to support you in your teaching and learning. Each chapter of this guide describes one phase of the Circle.

The technology plays an essential role in facilitating the exchanges on the Learning Circle, but it is not the focus of the activity. Students will learn about the technology as they use it to work on their Learning Circle activities.

The Global Teenager Learning Circle: Goals for Teachers and Students

Share Individual, Regional, and Cultural Perspectives

- Promote intercultural and regional understanding and sensitivity
- Understand how regions are similar and different
- Explore issues of national and global significance

Foster Problem-Solving and Critical Thinking Skills

- Engage students in thoughtful choice of a question for the Learning Circle
- Involve students in research as they respond to questions
- Develop students' ability to collect, interpret and present information to others
- Improve map reading skills as students locate the Circle schools

Enhance Communication Skills

- Encourage students to use writing to share ideas with others
- Provide opportunities to read, evaluate, and edit the work of others
- Promote writing across the curriculum

Develop Co-operative and Collaborative Work Strategies

- Learn to work as members of a team with peers in other places
- Understand responsibilities that come with group participation
- learn how to work co-operatively with partners in distant locations.

Learn to Use Telecommunications Technology

- Understand how computers are used to exchange information
- Gain experience in working with computers
- Be aware of 'Netiquette ' in electronic communication

Learning Circle Task

Participating in the Global Teenager Learning Circle can be a fun and exciting way for students and teachers to learn together by working on a common task: to gain, process and present information. During the circle students are both working on their own and each others projects. Receiving additional information to improve their own project, sending information to help other students to make their project more valuable.

As the topics of the Learning Circle are curriculum based, ICT skills and knowledge aspects are integrated in the everyday learning and teaching. So use ICT not as a primary goal but subservient to the educational process.

Computers and computer networking are very efficient tools for motivating learning and publishing student work. However, they will never replace teachers and the valuable role teachers play in organising educational experiences.

In Learning Circles, teachers and students share in the excitement of exchanging ideas and information with people in distant locations through telecommunications. Students share in the teacher's role when teachers and students work as a team to plan activities for other Learning Circle participants.

The teacher becomes a role model of the active learner by joining the students as a learner in projects proposed by Learning Circle partners. When teachers and students from different places work side by side to create a publication, sharing their unique visions of the world, everyone acquires a new level of understanding of the rich diversity in our modern world.

The Global Teenager Learning Circle is a network of human resources. This network provides a unique way to explore and understand one's own life by developing a richer understanding of the places and perspectives of others. By working co-operatively in Learning Circle teams, students learn new skills for their future in a global community.

Phase 1 Getting ready

It is important to set aside some time before the beginning of the Learning Circle for you and your students to become familiar with the program and to plan for your interaction.

Both the introduction workshop, as this guide are meant to give you a clear view on the Learning Circle process. To realise the maximum educational benefit from your ten-week period of Learning Circle, you will need to be ready to begin interacting with the other schools as soon as the Circle opens. Getting ready involves some planning by both the teacher and the students.

Teacher Preparation

You and your students will need to work closely with your Learning Circle partners. You can prepare for this interaction by reading this guide carefully so that you are ready to begin on the first day. Part of the excitement of working in a Learning Circle is that it is an open learning environment created by the group. No one can predict exactly what topics and questions you and your students will be exploring over the next few weeks. Your learning experience evolves from the co-operative work of all.

A little bit of uncertainty is what makes the educational experience so exciting. But there is also a strong need for predictability in networking. It helps if you make a commitment to send messages regularly. You will see how important this is the first time your students send a message. They will ask you when they should expect a response. You tell them a few days or a week, and they will wait. But if there is no reply after this time, they will be very disappointed. So you need to be careful about the predictions you make and recognise that others will be counting on you and your students to respond.

Try to set a regular schedule for checking and sending mail and share this information with your

Please refer to the Learning Circle Timeline and list the opening day on your calendar. You may also want to take a few minutes now to write the dates of each of the Learning Circle phases into your lesson planning book. You will need to plan some time for each of the phases of the Learning Circle. This is a good time to make a note of any school holiday or other times that you will be away from computer communication. You will want to share this information with others in your Learning Circle. You may want to post the Global Teenager Timeline near the computer so that you and your students can refer to it as you begin working on the Learning Network.

Student Preparation

Your students also need to get ready for this new learning experience. Now is a good time to discuss their expectations about similarities and differences among people in different locations. A student letter (**Appendix** of this teacher guide) introduces the Learning Circles to students. You may find it useful to make copies of this letter to give to your students or post it where your students can read it.

Learning to work in teams is an important work skill. Help your students to understand that others are depending on them and they are depending on others. In any team, there is usually a weak link, someone who is unable to do as much as others had hoped. So tell your students that they will be working co-operatively with student teams in distant locations to work in the Global Teenager project. Encourage your students to take their roles seriously as the information they provide to the Circle will represent themselves, their school, and their community. Everyone is both teacher and learner in the Learning Circles.

Student to Student Messages

Your students will be learning a great deal about students in other locations from their messages, but the form of communication in the Learning Circle conference is not personal letters between two students. With 150 to 300 students in a Learning Circle, it is very difficult to match up students for this type of exchange. More importantly, research has shown that this type of exchange exacts a high cost in teaching, planning, and classroom time, returning only the most limited educational benefits to the students.

Students who want pen or computer pals can list their postal or email addresses and a few words about themselves in a Student Welcome Message. However, please do not send message meant for a single person to the Learning Circle conference. The Learning Circle is an Electronic Classroom and messages in this conference are addressed to everyone in the Circle. If a student wants to send a message to another student at one of the schools, this message should be sent to the school account rather than the Learning Circle conference or mailgroup.

Plan Ahead

If everyone is ready to get started when the Learning Circle opens, there will be plenty of time for some very exciting interaction. One way to plan ahead is to have your students work on their Class Letter before the Learning Circle opens. Instructions for writing the Class Letter are in the next chapter of this guide. Sending your Class Letter the first week is an excellent way to invite others to join in the fun!

If it is not possible for you to work according to the schedule described, please let the other people in your Learning Circle know your plans. But Remember: offers of help and humorous reminders of deadlines are ways of helping others meet their deadlines. Insults, demands and angry pleas are not as likely to increase group productivity. Helping students to monitor their social skills as well as their work on projects can be a very valuable education.

Mail Management – Easily stored = Easily found!

Now is also the time to think about how you will store your messages. It is very important to have a number of blank disks available as it does not take long to fill a disk with messages.

Once you begin work on the Learning Circle, you may be receiving **a lot of weekly messages** and you will need to have a good system for storing and retrieving information that you receive in messages. We have included a number of record keeping forms in the Appendix, but you will also want to save disk copies of important messages.

Examples to store your messages!

| | |
|--------------------------------|---|
| Folder School .. schoolcode .. | Folder: Teacher Letters |
| Folder School .. schoolcode .. | Folder: Student Letters |
| Folder School .. schoolcode .. | Folder: Sponsored Questions |
| Folder School .. schoolcode .. | Separate folders: For every school incoming answers |
| Folder School .. schoolcode .. | Folder: summaries |
| Folder School .. schoolcode .. | Folder: saying goodbye message |
| Folder School .. schoolcode .. | |
| Folder School .. schoolcode .. | |

Always use your Schoolcode

During ten weeks several Global Teenager Learning Circles will operate simultaneously. Hundreds of E-mails in a couple of week. To help you and the facilitator keep easy track on these hundreds of emails on the Learning Circles, each school will receive a code from the facilitator. **Your schoolcode has to be used as the first word in the subject of every mail you send in your Learning Circle.**

A schoolcode is unique for a learning circle. So even if you joined an earlier Learning Circle you will receive a new schoolcode which you have to use!

Examples of how to use your schoolcode in the subject field

Teacher Letter:

Subject: (DB3) Teacher letter de Breul Secondary School

Class Letter:

Subject: (DB3) Class letter de Breul Secondary School

Sponsored Question:

Subject: (DB3) Sponsored question by de Breul Secondary School

Response to questions!

Subject: (DB-3) de Breul SS answer to question from Madina Islamic School (MIS-3)

Summary:

Subject: (DB3) Summary from de Breul Sec School

Goodbye Letter:

Subject: (DB3) Goodbye letter from de Breul Secondary School

Attachments

The Learning Circles are mainly based on low technology and low cost, so every school has the opportunity to join. Email list serv have one problem, they cannot handle attachments very well. So **PLEASE** do **NOT** use attachments while sending E-mail to the Learning Circle –list server- address. If you want to send picture or graphics please send it to globalteenager@iicd.org.

Getting Ready Check List

You are well prepared for the opening of the Learning Circles when you have checked off each of the following steps:

Getting Ready Checklist

- Read this Teacher's Guide and recorded timeline dates in lesson plan book
- Know how to send and receive messages
- Explained the Learning Circle concept to your students
- Created a plan for sending, storing, receiving and sharing email
- Know your schoolcode by head

Phase 2 Opening the Learning Circle

Week 1 – 2

The first thing you do when you enter a new group is presenting yourself. So the first Learning Circle activities are designed to get to know each other. Learning Circle interaction begins with the first CIRCLE NEWS welcoming you to the Global Teenager Learning Circle and listing the schools which have been assigned to your Learning Circle. It is a good idea to make a print copy of this message and save for future reference. You may want to post it in your classroom for your students as well. Circle News on a weekly basis continues to provide direction and support for Circle Interaction and to carry special events across Circles. It is a bit like loudspeaker that reaches across classrooms with news and information.

The Global Teenager Learning Circle will be officially opened with a welcome message, send by the facilitator Ebenezer Malcolm, listing the schools which have been assigned to your Learning Circle. This email will invites you, the teacher, to join the teacher-chat and to respond by sending a “Hello” message to the Learning Circle. By preparing your response ahead of time, you will be ready to send it when the Circle begins.

Teacher Chatsession

To start the Learning Circles, all teachers are invited to join a half an hour online teacher-chat. This exciting online meeting gives you the possibility to introduce yourself to your partner teachers and ask them all kinds of questions about themselves.

Teacher’s “Hello” Message

Your “Hello” message will assure the other members of your Learning Circle that you are there and ready to communicate. Begin by telling something about yourself. Take some time with this first message as it will provide others with their “first impression” of you.

Here are some ideas of what you might include in your first message:

- Describe your experience or position in your school and the grade level of your students.
- Give some personal information about yourself.
- Describe the computer equipment you will be using and give a fax number if one is available.
- Indicate how often and on what days you will be checking for mail during the Global Teenager project. Information on how often you plan to be online is very important. It will help you and your partners plan as you learn to work together.

Sample Teacher's "Hello" Messages, sent during the Global Teenagers Project Pilot project.

Here is an example of a teacher's "Hello" message from a teacher in Queenstown, South Africa.

From: marialouw@xs4all.sa
To: gtcircle1@list.iicd.org
Subject: teacher hello message MLS-1

MARIA LOUW SECONDARY SCHOOL, QUEENSTOWN

Hi there Learning Circle partners!

This is Werner Newton Von Schaeffer making contact! Sorry for joining in late - we were connected to e-mail today - but ... rather late then never!

I'm a 32-year-old Mathematics teacher for grades 11 and 12 at Maria Louw Secondary School in Queenstown, sunny South Africa. Here is a short self-portrait:

Hair: Black

Eyes: Brown

Height: 1,84m

Weight: I think it's 82 kg

Married to: Catherine, for 11 years

Children: Winrich - 10 and Inge - 7

Likes: My church work, computers and sport

Dislikes: Vegetables and going to a doctor!

I look forward to learn more about you.

Werner.

Please make a print copy of this list and save it for future reference. You may want to post it in your classroom for your students. Information about your partners may also be recorded on the "Learning Circle Attendance Sheet" provided in the Appendix of this guide. As you and your students receive the first messages from other locations, you can mark these dates on the attendance sheet.

You should send your "Hello" message as soon as possible after the opening of the Learning Circle. This assures your partners that you are online and ready to participate. Sample teacher "Hello" messages are included in the previous chapter, "Getting Ready."

Class Letter

The first student activity, the Class Letter, is designed to help you and your students learn more about your Learning Circle partners. You will have the names and locations of the other participants in your Circle, but it is unlikely that your students will know very much about the other places. They will be very curious. Help them understand that the people in the other classrooms are very eager to learn more about them, too.

The Class Letter introduces your students to their Learning Circle partners and lets everyone know that they are ready to participate. It is like the first day of school when everyone takes a bit of time to learn the names of their classmates. In the electronic Learning Circle classroom there are too many names to memorise, but it is exciting to learn who will be participating in each of the class teams. The Class Letter is the first opportunity for your students to ask informal questions and share information about themselves, their school, and their community with their Circle partners. Here are some ideas for what to include and how to structure the Class Letter, but encourage your students to develop their own style.

Student Introductions

Students want to know how students in other locations are similar and different. Your students might want to include a list of class favourites or make a list of ways in which they think their lives are the same as students in other locations and ways that they think their lives are different. While it will be difficult to get to know students in all the locations by name, it is a good idea to include students' names in the letter.

School Description

Students are eager to find out how schools in different locations compare with their own school. They are often interested in indicators of school size (number of students, classes at a grade level, number of classrooms), a general description of the school (number of buildings, recreation and sports facilities), markers of school spirit (flags, mascot, colours, songs), and information about special programs or rules. Perhaps your students will want to include a description of things they think make their school unique. If your school has a homepage: this is the time to mention it to your Learning Circle partners; on the IICD web site there is a special place for your class or school picture. Send it as an attachment to: globalteenager@iicd.org

Community Profile

Students are also curious to learn more about the surrounding communities of their peers in other locations. Your students might want to include the size of your community and, if it is not a city, the distance to and size of the nearest city. Descriptions of the land (location, elevation, terrain, bodies of water) and its people (ethnicity, customs, values and attitudes, type of work) will help students appreciate the different communities represented in the Circle. Students might want to discuss with their parents how to describe the community to others and bring their parents' suggestions to school. Sharing this information from different families in a class discussion is likely to provide many good ideas for representing the diversity in your community. Older students might want to describe community issues or local social problems.

Sample Class Letter

From: breul@inter.net.nl
To: gtcircle2@list.iicd.org
Subject: student introduction letter from SDB-2

SCHOLENGEMEENSCHAP DE BREUL, ZEIST

How are you? We hope you all are well.

All right, let's start with an introduction! Our class (5th form) counts 27 students, 9 of which are boys and 18 of which are girls. We don't have school uniforms.

The average age in our class is 17. Our school is called 'De Breul' and there are about 1600 students at it. Our classes are from 08:35 AM to 03:20 PM and take 50 minutes each. Our school week is from Monday to Friday. How long do your classes take? Everybody takes different subjects.

Optional classes are for example: German, French, Math, Economics, Science, Physics, Geography, Latin, Greek and History. Dutch and one foreign language we must take.

'De Breul' is situated in Zeist, a little town in the centre of Holland, near Utrecht. Most people in our class are from Zeist, but some of us come from towns nearby like Odijk, Maarn and Soesterberg.

We go to school by bike, by bus or by train.

Holland is a country where it rains a lot. Sometimes it is very nice weather, but the next day it may be gone. As we have a lot of pupils in our class, there are a lot of hobbies. Most students like sports such as hockey, tennis, volleyball and soccer. We don't have any school leagues, do you? Most of us have jobs in our spare time like babysitting, working in a supermarket, telemarketing.

We all like different styles of music. Popular styles of music in Holland are trance, R&B and rock.

We also like to go out in the weekend.

A special thing about our class is the fact that we have several nationalities. Most of us are Dutch,

A Reminder...

We use "class" to refer to all of the students at your location who are participating in Learning Circle. If you are involving more than one group of students in the Learning Circle, you can select a primary group and have them send the Class Letter. It is also possible to have different groups of students work together to send a single "school" letter. One group might work on the school description and another group could work on the community description.

Visualise the Learning Circles

As you receive each of the Class Letters, you may want to save a copy on disk and print a copy for classroom use. To visualise this learning event it is great to send pictures or drawings to globalteenager@iicd.org (reminder: don NOT send attachments to the circle). Lisette will make sure to publish the graphics on the Global Teenager Learning Circles website.

A bulletin board display is one effective way to visualise and share your Learning Circle experience with other students and teachers in the school and with parents and classroom visitors. Using a world map (or use the Maps from the teacher Guide) and a Learning Circle banner, each of the partner classes can be displayed and a place can be identified to display the messages as they arrive from these different places.

When students begin receiving electronic mail from each of the classrooms, the messages can be printed and posted on the bulletin board. This display makes it possible for students in other classrooms to share in the excitement of the long distance exchanges.

NICE IDEA: Use a Bulletin Board

As soon as you have received the introduction letters, take a worldmap and pinpoint all the places where your partners are situated!!



Plan Ahead

The next step is to plan for the Learning Circle questions. Once you have completed your Class Letter, you and your class need to decide on which question you will be sponsoring as part of the Global Teenager project. If you already know the question, you are welcome to send it during the first week. This will provide a model for others to follow.

Opening Learning Circle Check List

You are well prepared for the next phase of the Learning Circles when you have checked off each of the following steps:

Opening Learning Circle Checklist

- Attended the Teacher chat**
- Using the SchoolCodes**
- Prepared and Sent Teachers 'Hello message'**
- Prepared and Sent Student 'Hello message'**
- Pinpointed on the map all the places of the partners**
- Stored and shared all incoming messages**

Phase 3 Sponsoring a Question for the Learning Circle

Week 3 - 4

Now the real learning starts. In all Learning Circles, teachers are encouraged to extend classroom lessons by "sponsoring" a question **drawn** from their **curriculum**. The interaction in the Global Teenager project revolves around the Learning Circle is a search for information that will enable you and your Circle partners to make a 'Circle'. Each school sponsors one question or information request for the Learning Circle.

The question you and your students select is likely to involve learning experiences that take place in your classroom as well as in the Learning Circle. As the sponsors, your students will become the "experts" on the topic they select. Your classroom activities can be as involved as you wish. Encourage your students to provide some initial background or describe activities that are taking place in your classroom related to the topic. This paragraph details what is involved in sponsoring a question and how your educational goals can be integrated with the Global Teenager Learning Circle. It suggests questions and explains how to work with the other Learning Circle teachers to make your experience a success.

In addition to sponsoring a question in the Learning Circle, students also participate in the Circle by responding to the questions sponsored by their Circle partners. Depending on the time constraints of teachers, there are many ways to organise team or class responses to the Learning Circle. The next chapter of this guide, provides suggestions for organising the responses received, and writing a summary of the responses for your Circle publication.

An effective way to integrate networking with your classroom instruction is to take an activity that you already do in your curriculum and extend it by inviting students in different locations to respond to a related question.

A high school health science class might ask students at other schools to estimate the percentage of students at their school who are involved with drugs and the percentage of students who feel they could have an honest discussion about drug abuse with their parents. Of course the question should match the Circle theme!

To keep in mind:

1. The information requested is likely to show interesting cultural and regional variation. Questions should be selected to take advantage of the diversity represented in the Learning Circle.
2. The request for information has to be reasonable in scope and can be completed within the time frame of the Global Teenager Learning Circle . Your request for information should generally be something that can be completed during one class period.
3. It is advisable to relate the question to the classroom curriculum. Adding international information to lessons or providing a "hands on" co-operative learning activity to demonstrate a concept are very effective ways of extending classroom instruction.
4. The information collected will be of interest to a wide audience of students, teachers, parents, and others who read the publication. The Circle publication you create with 'Circle Publication' is a unique and current document. The information can be of great interest to others in the community.

Narrative

Michelle signed up for the Learning Network because she was excited about giving her students the opportunity to work on a topic with students in other locations. The introductory student messages have been fun, but she is eager to begin the cross-classroom collaboration on the topic. She's looking forward to helping students frame their class project.

"Today," Michelle begins, "we will need to work on our Learning Circle project idea. We are in a Places and Perspectives Learning Circle and we share a common theme with our distant friends. Now is the time to begin thinking about how to organize our Learning Circle project." "What are our choices? Can we do anything we want?" asks Kawehi. "Well, not anything Kawehi, there are some things we need to consider, but we do have an open choice. I have some examples in a project booklet that we can look through. But let's consider some factors as we think about possibilities," replies Mrs. Tanaka as she turns to the board and begins writing.

"We want to think of a project that will take advantage of the knowledge and skills of our distant partners," she says, as she writes "Geographic Variability" in the first column. "We will rate a project idea high in this dimension if we suspect that the information coming from each school is likely to be different because of factors like the size of the school or community, the climate or land formations, the culture or language."

She writes "Scale of Project" in the next column and continues: "Remember, there are a number of projects in our Circle. We will have students from each of the schools helping us out with our project. They will be looking to us, not their teacher, for instructions. If we make our project too involved, it will be hard to explain it to these distant students. We have to be very clear about exactly what we want them to do. In fact, it is a good idea if we collect the information here BEFORE we send our request. Then you will be in a better position to give them directions."

"The last thing we should consider is our interest and how the project ties to what we are doing in this class," concludes Mrs. Tanaka as she writes "Level of Interest" in the third column. "As the sponsors, we will all be working on the information we collect to present our final conclusions. So, our question should be something that we all want to learn about. If it is related to classwork, it will involve less outside work."

"O.K., I got it, different results in each place, not too much work for distant students, and not too much work for us. Right?" asks Nainoa. "Well, that's not how I would say it," laughs Mrs. Tanaka, "but it is important to set a goal that you can accomplish in the time you have. That is part of the learning process. If we define a great project but no one finishes it, where will we be at the end of the session?"

Now the students are ready to consider each of their ideas. Michelle is pleased to see how seriously her students take the selection of the sponsored question.

Sponsoring a Question

An effective way to integrate Learning Circle projects into your curriculum is to begin with your own teaching plans. Consider the activities or demonstrations that you use to involve your students in their lessons. It is likely that one or more of these activities would be much more informative with input from students in different social situations and from different geographic regions. The comparison of local and distant information can provide a rich learning experience for your students.

Example of a sponsored questions

From: Glenmuir High
To: gtcircle1@list.iicd.org
Subject: question from GHS-1

Hi circle members,

This is our first question.

In your country are there any products being "dumped" on your local market?

{1} What are they and what has contributed to this?

{2} Which industry does this affect and how?

{3} How can a consumers protect him/her self?

Please include in your answer -:

- The short coming of local industries.
- How consumers respond to these foreign products {consumer behaviour}.
- Problems arising such as unemployment, imports exceeding exports {deficit in the balance of payments} etc.
- Outline the organisation in your country which protects consumers and their function.

Group Learning

Sponsoring a Learning Circle question can be done by either the teacher or the students or it can be a team effort of both. Involving the students in the planning phase gives them a sense of ownership that often results in higher motivation. Integrating the network activities with something you already have planned in the curriculum gives you the advantage of extending the learning by using your own teaching materials.

Many teachers working in Learning Circles have reported the effectiveness of having students work in small teams. Each team meets and discusses their task. They decide what needs to be done and assign the work. When they have finished, they have a report which lists all of their names as authors. Grouping students into groups to write together is an effective way to increase the quality of the students' work. This organisation makes it very easy to respond to each question sponsored by your Learning Circle partners.

The golden rule: Stupid questions don't exist, just bad formulated questions!

The following exercise may help your students to formulate their class question. You have 2 weeks for sponsoring the question, so you can split the exercises in two or even three!

1. Divide your class in four groups
2. Let each group brainstorm on what sorts of ideas linked to the Theme
3. Ask them to formulate a question within the Learning Circle Theme
4. Collect the questions and give each group the three questions from the other groups
5. Let the students formulate an answer to the question
6. Collect the answers and give them to the group that formulated the question
7. Let the group compare the answers collected and see if it contained all the information wanted and if necessary adjust their question
8. Discuss the four questions with the whole class and choose in a democratic way the best question to be send to the learning Circle partners

Keeping Track

As the Learning Circle forms, you and your students will need to keep track of the questions that have been asked and your class response to the questions. You will find a Learning Circle Progress Chart for each section of the Learning Circle in **Appendix B** of this guide. Each time you get a message from a school with their question for the Learning Circle, one or more students can record the information on the appropriate Progress Chart. These Progress Charts will help you organise your students' responses to the Learning Circle. Strategies for responding to questions are provided in the next chapter.

Sponsoring a Question Checklist

You are well prepared for the next phase of the Learning Circles when you have checked off each of the following steps:

Sponsoring a Question Checklist

- ❑ Discussed project ideas
- ❑ Related project sponsored question to own curriculum
- ❑ Practised on formulating questions
- ❑ Democratically chosen a question to be sponsored
- ❑ Monitoring individual student progress
- ❑ Using the SchoolCodes
- ❑ Prepared and Sent Sponsored Question
- ❑ Stored and shared all incoming messages

Phase 4 Responding to the Learning Circle Questions

Weeks 4-5-6

During this phase of the Learning Circle students will start real global co-operation by exchanging work in the Learning Circle. Your students now have to respond to the questions send by their Learning Circle partners and at the same time receive answers to their question.

Important to mention is that responding to the question is also an important learning process: the students have to investigate different questions on the same theme. This will enlarge their overview on the theme, it's a multidisciplinary approach.

The students will be eager to see responses to their question. The time will go very quickly so it is important that you respond to questions as you receive them and not wait until every school has sent a question.

Participating in the Learning Circle means responding to questions from the other classrooms. Your Learning Circle partners will be expecting to receive a response to their question from your students unless you indicate otherwise. This does not mean that you need to have your whole class respond to each question.

It is not necessary, and often not desirable, to have every student respond to each question. While students are initially excited to receive mail, they soon lose interest if they read message after message with similar content. However, sending only the "best" responses may make students feel that their writing is not important. It is best to find a way to involve all of your students in the message exchange without sending repetitive information.

Group Learning

There are many ways you can organise your students to assure that they will be able to respond to requests from other classrooms. If the information request fits well into your curriculum, you may want to involve all of your students. If it does not, you might make it an extra credit project for a small group of students who finish their regular classroom work.

Classroom project team

The following exercise may help your students to formulate their answers. You have 3 weeks for responding to the questions, so divide your time well!

1. Divide your class in four groups (maybe the same groups as you used for formulating the question) – week 1
2. Give each group two questions sponsored by the partners - week 1
3. Let the students research the questions – week 1
4. Let the students formulate an answer to the question – week 1
5. Collect the questions and the draft answers and revise them yourself, by the peer students and you can even send the draft to your partner and ask them for comments – week 2
6. Let the student write the final answers – week 2
7. Send the answer to the Learning Circle – week 3
8. You can discuss the most interesting questions and answer in the classroom

NOTE: Also other classes and students at your school may want to be involved in a particular project. Perhaps a science, math, or foreign language teacher at your school is working on a similar topic and would welcome the opportunity to become involved in the Learning Network exchange. You might find that one of the activities sponsored by another classroom is perfect for students in your school's computer club. As a Learning Circle teacher, your role is to organise the project responses from your school and to provide your partners with weekly updates so that they know when to expect the information for their projects.

The important thing to remember is that your participation is a vital part of the Learning Circle. Your partners in distant locations will be eager to hear from you and your students. If you log on and read messages but do not respond or send messages of your own, no one will know you are there. So, let your partners know you're there and you appreciate hearing from them!

Writing Process

One of the goals of the Learning Circle projects is to help your students develop their writing skills across the curriculum. In some projects, your students may be asked to write about a particular topic. The following advice for organising writing is consistent with the writing process approach that has been very effective in improving students' writing skills. The writing process can be conceptualised in three stages: 1) planning, 2) drafting, and 3) polishing

Planning

Professional writers plan their writing, sometimes at their desk, sometimes while engaged in other routine activities such as mowing the lawn or washing dishes. Novice writers need to understand the importance of planning and often require explicit directions on how to plan. Your students may need help and encouragement to think and read about a topic before they begin writing. The student messages soliciting information for their sponsored Learning Circle project will help your students plan. It might also be helpful to begin by having your students respond to these three planning questions:

1. What is the topic of our writing?
2. Who is our audience? What will be interesting to them?
3. What do we want to accomplish by writing about this topic (e.g., convey information, persuade policy makers, etc.)?

Drafting

Drafting is the process of writing down ideas, organising them into a sequence, and providing the reader with a frame for understanding these ideas. The end result is a composition or "first draft" of the ideas. The following questions might be helpful to students as they compose their first drafts:

1. What ideas or thoughts will we include?
2. How will we organise the material?
3. How will we introduce, develop and conclude our first draft?

Research continues to identify many advantages to having students write co-operatively. At the idea stage, multiple perspectives help students explore the topic more extensively. Students working together on a computer often create higher quality drafts with a tighter focus on the topic. The immediate response provided by a writing partner during the composing stage helps students develop their ideas in a coherent way.

Polishing

Polishing refers to the process of editing and revising based on an evaluation of the writing. Response or feedback on students' writing can significantly improve the quality of their work. The response can be in the form of a conference with the teacher, but it is also important to encourage peer response, since peers constitute the primary audience. Student response groups can be very helpful in reviewing the strengths and weaknesses of written work.

The questions that students should ask themselves as they proceed through the polishing stage are:

1. How can our response improve others paper?
2. What information should we add or delete?
3. Have we corrected all spelling and grammatical errors?

Sending Learning Circle Responses

Your students will be preparing responses for the questions in the Learning Circle. Students can compose their work on the word processing program they commonly use in the classroom or they can type their response directly into a message. When students have edited their work, there needs to be a classroom procedure for making sure their final version is sent on the Learning Circle. It is best to set up some mail management procedures for sending and receiving mail.

Messages are easier to read if you add a row of computer symbols (like the asterisks above) to clearly separate different parts of your message. Please remind your students to include the following information with each response:

- (1) the question and name of the sponsoring school,
- (2) name of class or students who wrote the response,
- (3) name of school and city of the author(s).

Student Chat and Personal Messages

The size of your Learning Circle has been designed to ensure a comfortable and divers working and learning environment for you and your students. It's important to remember that the message exchange via the Learning Circle occurs among classrooms.

However, personal contact is very stimulating and adds to the better final result. To stimulate personal contact in **week 5 an online chatsession** will take place. Please make sure that your students are able to enjoy such an exciting session.

Another way to stimulate personal contact is, as a teacher, to encourage students to exchange personal letters or ask for additional information in electronic messages addressed to the specific classroom, project team or individual. (Do keep in mind, not every students might have access to an individual E-mail address.)

Learning Circle Update

The participants in your Learning Circle will be waiting for responses to their question. It will help everyone plan if all Learning Circle teachers send a chart at the end of Week 5 indicating the status of their responses to the Learning Circle.

An example of a Learning Circle Update

From: mlschool@world.can
 To: gtcircle3@list.iicd.org
 Subject: from Learning Circle Update from MLS-3

OUR QUESTION: In your local environment, list 3 things that are on the increase and 3 things that are on the decrease and rate the change as positive, negative or neutral.

YOUR RESPONSES: We have heard from Golden Hills, Vista, George Washington, and Atlanta. Thank you for your prompt responses!!! We are eager to get more!!

OUR RESPONSES TO THE LEARNING CIRCLE:

| QUESTIONS | SCHOOL | PROGRESS |
|-------------------|-------------------|---|
| Community Profile | Newport Beach | Sent answer. Thank you |
| Schools | Golden Hills | Response sent last Friday, asked for some more info |
| T.V. Media | Vista | Sent response last Monday, Thank you |
| The Arts | George Washington | Finished! Very complete info Thank you |
| Science | Granite Rock | Team 6 is editing their report. Good Luck |
| Local History | Green | Still working on this one have received a draft 😊 |
| Homelessness | Summerset | Just got your question, response soon. |

Responding to the Learning Circle Questions Checklist

You are well prepared for the next phase of the Learning Circles when you have checked off each of the following steps:

Responding to the LC Checklist

- Did extensive research on each question
- Practised on formulating a complete answer to a question
- Practised on writing in general
- Monitoring individual student progress
- Using the SchoolCodes
- Send a response to all questions of the partners
- Stored and shared incoming messages to your question

Phase 5 Summarising the Learning Circle

Week 7-8-9

Phase 4 is meant for organise, summarise and reflect on the information received. The sponsors of a project are the ones who create the summary for the Circle publication for distribution to the other schools. This can be done as a document. To stimulate the use of the computer, you might also want to publish your summary (incl. graphics) on the Internet.

The students who sponsor an activity are responsible for using the information received and make comparisons across the different regions, for collecting and for editing written material that is requested. This process will help them learn how to review, summarise, evaluate and present information. Summarising the information for other participants in their Learning Circle and for parents and educators who will read the 'Circle Publication' gives students a clearly defined purpose and audience for their writing.

The project manager of the global Teenager project will publish a booklet of the Summaries of the Learning Circles, so make sure your name is in there!

Group Learning

A team approach can be a very effective way of involving the whole class in the analysis of the information. Divide your class into teams so that there is one team for each of the schools responding to your project

How to write one summary with a group?

The following exercise may help your students to formulate their Learning Circle summary. You have 3 weeks for write the summary, so divide your time well!

1. Divide your class in four groups – week 1
2. Give each group all answers provided by the partners and an outline for the summary- week 1
3. Let the students read the answers carefully and make present their most important findings and conclusion and put those together in one chart – week 2
4. Let each group write a draft version of one part of the summary (see outline), incl. all the comments on the chart – week 3
5. Put the summary together and let the students revise it – week 3
6. Let the students write their final version of their part of the summary – week 3
7. Send the summary to the Learning Circle – week 3
8. You can discuss the summaries send by your partners in the classroom

The Summary

In any group effort, the ideal is 100% participation, but the reality may be somewhat less.

It is likely that your students will have received responses from many of the schools in their Learning Circle, but perhaps not all of the schools. Even three or four responses from different locations can provide enough material for a rich 'Circle Publication'.

There are many different formats for displaying information. Students might want to show the information in bar graphs, histograms, pie charts, or lists. Other information might be better summarised in paragraph form. The students can decide if they want to include samples of the messages that were sent or only their summary of the content.

Analysing Requested Information

You and your students will need to develop strategies for recording, examining, and summarising the information that you requested. Students can help plan how they will save, store, and compare the messages. If they requested student essays or other writing forms for their project, they will have to evaluate those received and select and edit the ones to include in their project summary. Some information may need to be integrated. If they asked all sites to collect data or respond to a number of questions, it is not always informative to just list all the responses by each site. Sometimes a narrative summary of the responses is effective. Or students may want to compare the responses from all sites to a single question. Sometimes listing the schools on a continuum or grouping schools with similar responses will help students understand the relationships. A general format for reviewing the responses might be to address the following three questions:

1. Why did we ask the question?
2. What did we know about the topic when we started?
3. What did we learn in our classroom?
4. What did we expect to learn?
5. What did we learn from the responses of the students?
6. What were the differences in the different countries?
7. Why do we think these differences exist?
8. What are the consequences of the differences for a country?

The students might think in terms of parts as they review the responses from their partner classes. As a Learning Circle teacher, your task during this period is to help your students collect the information they received from the other schools and summarise it. There is no perfect format for the presentation of different types of information. It is important to help students think about how to best display their information and explain what they learned from collecting the information. This last step is essential in the learning process. Students need time to reflect on the Learning Circle.

Evaluation Strategies

The goal of these strategies is to help students learn how to evaluate writing received from partner classes. The role of the teacher is to help students learn the importance of constructive evaluation. For example, if a student says, "I think this article should be rejected because I don't like it," the teacher needs to help the student specify what features led to that overall assessment. One way to do this is to say that "not liking it" does not help others know how to improve their writing. Then the student can be encouraged to think about the reason that led to the assessment. Was the article poorly written or badly organised? Was there enough information? As students begin to form evaluation standards to apply to the writing of others, they also begin to apply these same criteria to their own writing.

Length of Your Project Summary

Teachers often want to know how long their Learning Circle project summary should be. The length is something you will want to discuss with the other teachers in your Learning Circle. Here are some general guidelines for a printed section. You will be working with a group of classrooms. If your group is small, your summary can be longer or more detailed; but if you are working with 9 classrooms, you will need to be more selective. In some cases groups have set limits, like 3-5 pages per classroom. In other cases, they leave the decision up to the classroom sponsoring the activity. There is no need for all the project summaries to be the same size.

Each classroom should prepare a title page for their project summary. It is important to give credit to each class that participated in a project. This can be done by either crediting students' work in the project summary or listing names of the participating classrooms in an acknowledgement box.

Designing Your Section of the Circle Publication

You may already be familiar with a word processing or desk top publishing program that allows for easy layout and printing of the information that you have selected for your section of the publication. If you have never used a desktop publishing programs, you might find that learning now will be a great opportunity, less representative but much quicker to do the layout or by cutting and pasting the printed text.

Example of a Learning Circle Question Summary (edited)

From: KSC@world.us

To: gtcircle1

Subject: circle publication from KSC-1

Drugs and Drug Abuse

Our question examined the touchy issue of drug use and drug abuse in our schools. We know that these are issues that some people don't want to even think about and certainly don't want to hear about. They want to think that drugs are a problem for other places but not where they live. In our class we have been discussing the legal and social issues related to drugs and some of the other related social problems: poverty, gangs, money, crimes, unemployment, latchkey kids, and lack of community programs.

We compared the effects of marijuana and alcohol and discussed the arguments for the legalization of marijuana and an increase in prohibition against alcohol. Some of us felt that if we treated drugs the same as we do alcohol, the government could tax the sale, establish restrictions, and control the use. This would take away the money made in drug dealing and keep people from going crazy when they lose their drug contact or someone starts to make them pay a lot more money. Other people thought that we should work towards a drug free environment including alcohol and cigarettes. They said we should make all drugs illegal and try to teach everyone that they can have a better life if they stay away from these things.

OUR QUESTION FOR THE LEARNING CIRCLE: Do you think that alcohol is a drug and what would you do if someone tried to force you to take drugs?

ON ALCOHOL AS A DRUG

We heard from 7 of the schools in our Learning Circle and found that most of the people agree with us that alcohol is a drug. The students in Virginia said: "Drugs are things that alter your mental state and alcohol does this." The students in Indiana said: "It is a drug because you can get addicted to it and then do things that you can't remember." Only the students in British Columbia and California didn't agree. One-third of the California students said alcohol in beer and wine was a food and it was only the misuse of it that caused problems. Students in British Columbia said: "If alcohol is a drug, so is coffee, tea and soda."

WHAT WOULD YOU DO IF A STRANGER TRIED TO MAKE YOU TAKE DRUGS?

Most of the people at the different schools (83%) said that they would run away, but 12% across all of the sites said that they would try to reason with the drug dealer. A relatively small percent said they would take the drug. The other responses were mostly things like "beat up the drug dealer" and "fake taking the drug." Here are the results:

| School | Run Away | Reason w/ Dealer | Take the Drug | Other |
|------------------------|----------|------------------|---------------|-------|
| Jefferson High, WV | 85 | 15 | - | - |
| Riverside, CA | 80 | 10 | 1 | 8 |
| Bridgewater High, NJ | 95 | 5 | - | - |
| San Diego High, TX 100 | - | - | - | - |
| Eastbend High, NY | 55 | 25 | 18 | 2 |
| Ulysses Grant, MI | 88 | 11 | - | 1 |
| Eastwood High, FL | 79 | 17 | 2 | 4 |

 MEAN 83% 12% 3% 2%

OUR CONCLUSIONS

We discussed the answers about alcohol and the reasons students gave. We discussed a number of ideas. One was to not sell "hard" liquor, only beer and wine. The other was to give people in public places (like bars) a limit, like only one drink an hour. Some of us thought that you shouldn't be allowed to drink in public places, but you could have as much alcohol as you wanted in your home.

We are worried that some of the students said that they would take drugs if forced. We think it would not be good to do that even if you were being forced. We could see some differences in the drug patterns at the different schools.

Summarising the Learning Circle Checklist

You are well prepared for the next phase of the Learning Circles when you have checked off each of the following steps:

Summarising the LC Checklist

- Evaluated all answers
- Practised on formulating a complete summary
- Practised on writing in general
- Monitoring individual student progress
- Using the SchoolCodes
- Send the summary to all questions of the partners
- Stored and shared incoming summaries

Phase 6 Closing the Learning Circle

Week 10

All good things have to come to an end. It's time to say goodbye..

Closing the Circle

Any class or group who has worked closely together to accomplish a task will feel some sadness when the work is done and the group disbands. After working together for 10 weeks you will see that a lot of friendship has developed within your (virtual) classroom. So to make the closing activity a personal contact seemed to be in place: another final student chatsession.

Because of that disability of partners to join the chat, it is also very nice to prepare a short summary of your experiences on the Learning Circle, thanking each of the classrooms for their participation. This is also your possibility to exchange addresses for future correspondence.

Publishing Circle publication

Your Circle publication will be very easy to assemble at the end of the session. The easiest way to do it is to print copies of the messages containing Class Letters and the summaries from each of the schools, and staple all of this together into a booklet. Other classes will want to copy (or cut) the information from the messages and arrange it on pages with either computer graphics or hand drawn illustrations.

Students with desktop publishing experience may want to design the whole booklet online. Working with information that they have collected and finding the best way to display it can be a very good learning experience. They might enjoy sharing copies of their finished product with their partner schools.

An online version of the booklet can be published on the Internet and will appear on IICD's website. If your school has its own website, it is of course possible to publish the booklet there as well.

Sharing the Circle Publication

When you have received the Circle publication, you can stand back and admire what you have accomplished by working together with distant classes!

You may want to make a few extra copies to send to the people who helped make your participation in the Learning Circle possible — your principal, your school board, your computer co-ordinator, and the school district office. You and your students can send emails to friends and family referring to the website the booklet was published on and keep hard copies for later.

IICD will publicise a booklet with all the summaries. Every school will receive 1 copy. Your school library is a good place to provide school access to your Circle publication.

Learning Circle Certificates

After you have successfully ended your Learning Circle you will receive from your Country Co-ordinator a Learning Circle Certificate.

Moving On...

We hope you and your students enjoyed your participation in the Global Teenagers Learning Circle. We encourage you to take part in the next learning program. Your experience with this project is very valuable to us. Within two weeks after the end of the Learning Circle, your Global Teenager Country Co-ordinator will send you a questionnaire. We hope you will fill it out, along with the registration form for the next session.

IICD welcomes your comments and suggestions for future development of the Global Teenager project. Please send them to:

IICD, PO Box 11586
2502 AN, The Hague
The Netherlands
Phone: +31 70 3117311
Fax: +31 70 3117322
Email: globalteenager@iicd.org

The Learning Circles are designed by the teachers who participate. If you would like to offer any suggestions, comments, or ideas, we are eager to hear them and we will do our best to incorporate them into future Learning Circles.

Margaret Riel's homepage is at: <http://www.gse.uci.edu/mriel.html>.

Timeline for GTP 'Learning Circle' September 2001

Timeline GT 'Learning Circle' September 2001

The following timeline guides your Learning Circle activities. Each phase of the Learning Circle is described in a chapter of this guide. The facilitator will mark the beginning of each new week with a short message to all participants.

Phases of Learning Circle Interaction

| | | |
|----------|---------------|---------------------------------|
| Start-up | Getting Ready | Monday September 17 – Friday 21 |
|----------|---------------|---------------------------------|

After the introduction workshop, teachers prepare their students for participation in Learning Circle. This involves discussing responsibilities, preparing a classroom and teacher's introduction and thinking about a question to ask the other participants.

| | | |
|----------|--|---|
| Week - 1 | Opening the Learning Circle:
Teacher Chat | Tuesday September 25 |
| | Write and send:
Teachers letter
Class letter | Monday September 24 - Friday September 28 |

Interaction begins with the first introductory electronic messages listing participants. Teachers open the Circle with a chatsession and send their first "Hello" message. Students send a Class Letter to the Learning Circle to introduce themselves, their school and community.

| | | |
|-----------------|--|--------------------------------------|
| Week - 2
- 3 | Sponsoring a Question
for the Learning Circle | Monday October 1 – Friday October 12 |
|-----------------|--|--------------------------------------|

Teachers and students reflect on what they would most like to learn from interaction with regional experts in other locations. Each class formulates a single question which they would like to research.

| | | |
|-------------------------|-----------------------------------|---------------------------------------|
| Weeks - 4
- 5
- 6 | Responding to the Learning Circle | Monday October 15 – Friday November 2 |
| | Student Chatsession | Thursday November 1 |

Students and teachers use their expertise on their local surroundings to respond to each of the questions.

| | | |
|------------------------|---|--|
| Week - 7
- 8
- 9 | Summarizing the Circle and
Making a Circle Publication | Monday November 5 - Friday November 23 |
| | Send summary to partners | Monday November 26 |

Each class collects and analyzes the responses to their sponsored question. They prepare a summary of the responses for the Circle publication.

| | | |
|-----------|-----------------------------|---|
| Week - 10 | Closing the Learning Circle | Monday November 26 – Friday November 30 |
| | Student Chatsession | Thursday November 29 |

Students write and send a goodbye message and say good-bye during a chatsession and the Learning Circle closes.

Student Letter

Dear Student,

Welcome to this Global Teenager Learning Circle!

New technologies like computers and Internet can make learning fun again. We are going to help you work with students in different schools in other cities, states and countries. During 10 weeks, you will be able to communicate with these students, through email.

Learning Circle

You will be working with a team of 'classes' called a "Learning Circle"; there are 8 classes in a Learning Circle. A class could be a 'traditional class' with 30 students. But a class might also be a computer club, or a smaller group of students who want to join Global Teenager. The students in your Learning Circle will not know what you look like or where you live. They may not know what your school is like or what you like to do. They will depend on your descriptions and your writing to learn more about you. You will be sharing information about yourselves, your school and your community as you get to know the other students in your Learning Circle.

Your class will be designing one question for the Learning Circle. Students in other classrooms will also be contributing questions. You will work together as a team to respond to the questions posed in the Learning Circle. You may be asked to share your ideas, locate information, complete a survey, interview someone, or express your feelings. At the end of the session we hope you will put your work together in a Learning Circle Publication to share with others.

Personal E-mail

The students in other places will be eager to receive the first "hello" message from your class. Soon you will be busy on a Class Letter. It may seem strange at first, but you'll be amazed at how easy it is to make new friends in Learning Circles. And soon there will be friends with whom you would like to E-mail a lot more, just for fun or to exchange further personal information. We think that's wonderful! One request towards this personal E-mail; please use your own E-mail address for it, so the Learning Circle mailboxes won't overflow.

Facilitator

Besides students and teachers, there's all so a facilitator (Ebenezer) active in your circle. Remember, a facilitator is not a policeman, he's a guide in the Learning Circles and keeps a close look on the schedules. Feel free to ask questions, any time during the Learning Circle.

We hope you will enjoy the excitement of meeting new people in distant places and in learning with them in your electronic classroom.

Have a great session,

Neeltje Blommestein & Nathan Ducastel
Projectmanagers Global Teenager

Learning Circle Attendance Sheet

| | |
|---------------------------------------|--|
| Learning Circle Theme | |
| E-mail address of the Learning Circle | |

1.

| | |
|--------------------------------------|--|
| School name | |
| Schoolcode | |
| Location | |
| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
| Date and of sponsored question | |
| Sponsored question | |
| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
| Remarks | |

2.

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| School name | |
| Schoolcode | |
| Location | |
| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
| Date and of sponsored question | |
| Sponsored question | |
| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
| Remarks | |

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| School name | |
| Schoolcode | |
| Location | |
| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
| Date and of sponsored question | |
| Sponsored question | |
| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
| Remarks | |

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| Schoolcode | |
| Location | |
| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
| Date and of sponsored question | |
| Sponsored question | |
| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
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| Location | |
| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
| Date and of sponsored question | |
| Sponsored question | |
| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
| Remarks | |

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| Location | |
| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
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| Sponsored question | |
| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
| Remarks | |

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| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
| Date and of sponsored question | |
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| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
| Remarks | |

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| School name | |
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| Location | |
| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
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| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
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| Email | |
| Date of Teacher Hello message | |
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| Sponsored question | |
| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
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| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
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| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
| Remarks | |

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| Schoolcode | |
| Location | |
| Teacher name | |
| Email | |
| Date of Teacher Hello message | |
| Date of Student Hello message | |
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| Sponsored question | |
| Date answer send to their question | |
| Date answer received to our question | |
| Date of summary | |
| Date of Goodbye message | |
| Remarks | |

Certificate of Participation



GLOBAL TEENAGER PROJECT

_____ *from*
Nathaniel Nyaluza High School
Participated successfully as a student in
Global Teenager Learning Circle from September – December 2000

Lisette Gast
International Institute for
Communication and
Development

SchoolNet SA

Sibongile Mafilika &
Philemon Kotsokane
SchoolNet SA

Grocott's

Friday, June 18, 1999

Pupil wins camera for Nyaluza school



by Sarah MacGillivray
A local schoolboy has won a R6 000 digital camera for his school, after his logo design was judged the best in a bi-nation competition.

Nathaniel Nyaluza school pupil Mapapa Siyabulela beat pupil designers from Holland and South

African with his winning logo — a picture of the world encircled with the “@” sign.



Mapapa's design won the Global Teenagers, Project logo competition and was unveiled at the culmination of the project in a video conference on June 7.

The project involved linking rural schools in South Africa with schools in Holland and aimed to encourage discussion and participation in international web-based learning programmes.

Organizers invited pupils to design a logo for the project and offered a R6 000 digital camera for the winner's school as the prize.

St Andrew's college and The Diocesan school for girls (DSG) network manager, Tim Boucher, said the video conference link-up was even attended by South African ambassador to Holland Carl Niehaus.

Mr Boucher said Mr Niehaus thought the project was an “amazing way to bridge the gap between countries and make the world a smaller place”.

Mr Niehaus had said it was wonderful that people from remote areas could share ideas and he was really excited to be there and hear the exchange.

Grahamstown's participating schools, Nombulelo and Nathaniel Nyaluza, also had a question session with the school in Holland.

Mr Boucher said most of the questions were about gender, race and cultural issues such as what

* To page 2

Pupil wins camera for Nyaluza school

* From page 1

music they listened to.

He said the Grahamstown students even sang an extract from a kwaito song to the Dutch pupils.

Nombulelo teacher Mr Ignatius Koffie said the pilot project had run for about four weeks from March to April.

Three “circles” of about eight schools in each group were set up. “In the first week the students and teachers introduced themselves to their circle and sent photos out on the web.”

He said the schools then sponsored questions about social issues like crime problems, pollution, the environment, poverty and unemployment. In the third week students answered questions on e-mail. Mr Koffie said the last week was for summaries and good-bye messages.

He said the students were encouraged to keep in contact afterwards by communicating with each other through personal e-mail.

- ECN

THE GLOBAL TEENAGER PROJECT

Learner's interviews

September 2001

Good afternoon, thank you for agreeing to this interview about GTP that you participated in.

I I would like you to provide some examples of how participating in the GTP contributed to your schoolwork.

Student A: Ehh GTP was very essentially to me because I learnt a lot in this project.

I What did you learn?

Using computers and getting information

Student B: Okay by using the computer so that I can be a better learner so that I learn how to use it by myself for future.

Student C: It contributed a lot on my schoolwork for they were some topics like COMESA we would not find information in the textbook but we would go to the Internet and find information on the Internet.

I Provide some examples of how you thought the GTP helped or hindered your teacher?

Student A: Humm it helped her with computers and after school we went to the computer centre to do the project, she stayed with us for a long time because typing was slow.

Student B: I think the GTP helped my teacher big time because she even helped us to know how to use a computer so that she can learn how to teach us.

I Yes I am also learning along with the students, okay!

Student C: It helped you a lot because you too learnt may things while you were trying to help us because you were taking us there after school and even during school hours too.

I Give me some specific examples of what you learned from participating in the GTP?

Student A: I learnt how to use the computer, to communicate to other countries.

Student B: I learnt how to use computers for email

Student C: we learnt how to use computer to communicate with other learners

I Describe some of the difficulties you and your team experienced during the GTP?

Student A: Yes because other students they do not know how to use the computer, firstly the teacher show us the basics of the computer before we- we can communicate with other in other countries.

Student B: Yeah I did not have many difficulties but other learners were, it was first time for them using the computers but that was a big problem for them. so we have to struggle a bit with them.

Student C: eeh the difficulty I experienced was first I was not computer literate and many of us weren't and I with your help we are still learning there are may things that we don't know we are still learning. Remember when we typed the letter and when we clicked 'send' the computer send a message; time is over (login in again) and we lost the whole letter we had to type it again.

I Shame I do remember and loosing data is very common with computer users so you have to be patient most of the time.

I What exactly made the GTP so enjoyable?

Student B : Oh! It is so enjoyable because you know now a lot and the teacher teach me a lot about this project.

Student B: Ahh it was so enjoyable because now we had a chance to communicate with other students from other countries through e-mail and the Internet and it was our first time to chat.

Student C: okay what made it so enjoyable is that we had to communicate with other children and also we were learning and having fun at the same time.

I What exactly made it so unpleasant to participate?

Student A: No!

Student B: yea not that much

Student C: No!

I How would you like to see the GTP operate in future here at Nyaluza?

Student A: But it so embarrassed may be we can talk a lot like other things, other learners ask are you still there. I want to be trained in the computers so that it is easy to communicate (in the chat) and easy to get on the Internet every day not only doing the project.

Student B: I would like to see quite practicing it I would like students practicing the computer quite frequently because for us to have a better knowledge of what we are doing by communicating with other countries through the computer

I That is a good point I see that you have been among the first to attend the computer literate course. Thank you so much thank you.

Student C: Well for now its fine but what I would like the teachers or anyone who is the facilitator if I may put it, can try as hard as possible they can to teach all school children to learn how to use the keyboard and how to operate the computer.

I Okay I think that is a very strong point because very few still know how to use a computer. There is training going on but you have to pay R50 for two weeks so that you can be comfortable using computers.

Student C: Aah! but our parents haven't given us the money

I Did you ask your parents for it?

Student C: Yes but it is optional

I Thank you so much for your time...Thank you.

~~~~~ **THANK YOU SO MUCH FOR YOUR TIME ONCE AGAIN** ~~~~~

## THE GLOBAL TEENAGER PROJECT

Teacher's interview schedule

September 2001

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Good morning, thank you for agreeing to the arrangement of this interview. When a question is not clear please feel free to ask for clarity and consider it as a conversation.

I When did you participate in the Global Teenager Project?

- a. March to June 2001
- b. September to December 2000
- c. March to June 2000
- d. September to December 1999
- e. March to June 1999

Teacher A: A & B

I Did participating in the GTP enhance your teaching?

Teacher A: Quite a lot, in fact you know what my involvement was around culture and so it empowered me because we were beginning to introduce Arts and culture in our schools (one of the 8 learning areas grade 8) and so I had to get a lot of information and the information I received from other people around the GTP enhanced me in fact it assisted me a lot in broadening my view about what culture is all about and also the cultures of world community.

I At any other moment e.g. with other classes, have you made reference to knowledge gained from the project?

Teacher A: Yes in fact I would refer them to; I capture information for them, the questions that were raised in the GTP I would give them so that they take those questions and make research around them so it assisted me a lot in formulating opinions and ideas around certain concepts.

I Give me an example?

Teacher A: How has TV changed your culture?

I What problems did you experience during the project?

Yeah the most huddle I faced was that most of the learners did not know how to use a computer. They were slow in typing, they did not have typing skills and it was slow for them to convey their views to other schools. I thought this year I would have classes where they would be exposed to computer typing and all the staff computer skills and so that they could be able to convey their views promptly and so on and so forth.

I        What are the difficulties in incorporating collaborative online team projects within the curriculum?

Teacher A: Yeah most of them did pose such questions for instance some were quite advanced to respond to I would encourage them to answer those that they think are quite easy to respond to then

I        What technical difficulties did you experience during the project?

Teacher A: As I have already highlighted the typing skills and general computer use if they could capture them it would be easy to communicate they could write something down and you would see that they would take a very long time and sometimes time is limited and using a lot of my extra time after school.

I        Any other problems that you may have experienced?

Teacher A: Oh! A lot of access problems. In fact what discouraged me a lot was the accessing the computer at our school is quite a difficult. You've got to run around the HM who have got the key and when you've got a period and you want to take the kids to the computer lab, you've got to stand next to the door and wait for him to give his kids some work and after some time he would come back and give the keys and tell you that when the bell rings you go straight to class, he 's so pre occupied with that. He knows that you will get, and also if you have a free period so that I utilise the entire period that I have allocated my time table too and it is difficult here at [NNSS] to have that so immediately when the bell rings you don't get the keys you know you have only about 20 minutes since our periods are about 55 minutes, when you get the keys late leaves little time, and after school you struggle to get the computer lab and you would have after noon classes having their own project work. I think that if we could have a clear cut time table for the use of the computer lab and the keys are not with a very busy person that would be very fine. In fact let me further say that eh if we could have a special person somebody employed to clean and monitor the coming in so that the teachers sign and it could create a very good positive and conducive atmosphere to the use of the computer lab. We need to have a staff member that does not have a teaching timetable because you end up chasing a fellow who has the key and even if it could be for instance you to hold the keys you also have, I cannot disturb you in your class to come and show me something. So we need somebody who does not teach but whose interest and focus is on the computer lab can monitor very strictly the coming in and out and has got the time table and slots of teachers.

I Did participating in the project make additional demands on your work as a teacher?

Teacher A: Yeah because sometimes you have to make a research and you have got to help learners to respond adequately to the people outside our school. And as much as you would like them to respond as a teacher you need to put more effort to the questions.

I What are the perceived benefits of involving your learners in the GTP?

Teacher A: Oh I think that firstly it the enlightenment you begin to know people even though you have never been to the Netherlands for instance you begin knowing how they live you know their culture and way of life. Through the computer you are taken to that part of the world. It is quite valuable; the computer is something that is rich with information about other parts of the world.

I Would you like to involve your learners again in the future phases?

Teacher A It's a pity Joy even at the beginning of this year particularly after June I had the Civics Literacy Project. I so desperately wanted to get access to the computer lab and registered around civics literacy themes pertaining to civics; if I could have a project I am involved in a project of introducing Civics Literacy in our school and so I had a number of kids very enthusiastic kids who wished to get involved in projects and even involving learners in the GTP around the area of Civics Literacy that would impact positively in the introduction of the civics education in our school. Unfortunately that computer lab is there and is locked with high security it is fine but the man who is in control is monopolising all the facilities, I am saying this with all the humility Joy I am not arrogant when I say this it is the desperation that I am having and sometimes there are moments when I feel to cry when I see kids like Roy for instance that boy when they come to me and say mufundisi when are you going to the computer lab those kids are yearning to access the computer lab and they are still energetic and still young you know and the computer lab is locked I don't know until when but I am hearing that after school in the evening our --- is there utilising I don't know how it happens.

I I know how you missed the deadline for registering for the GTP and I am part of the frustration too, you missed registering and those are some of the problems we are looking into.

I If no, what did you not like during the project?

NA

I Any suggestions that can make the GTP different in future?

Teacher A: In fact Joy what I have done now as of now is that I have approached our SADTU site because we can not run away to Rhodes University to avoid getting into the circus of this man. These facilities are there to be utilised buy the stakeholders that is the people who are working at [NNSS] both the teachers and the pupils. Those have to be

utilised by them that is why I have taken the matter to SADTU site so that we would address this labour disrepute.

I Is there any additional information that you would like to talk about?

Teacher A: Hey! In fact I have been captured by computers.

I I have love for computers I am happy to know that someone has love for computers.

Teacher A: They have captured my heart and in fact I am too busy now writing plays and poetry as an artist I appreciate, I am using the computers creatively, there is a lot of wealthy but people do not understand that; the other day when we were in a meeting one of the speakers said that let you and me resolve the problem, that was a very naïve statement, you know I don't know how a public facility can be reduced to a level of three people it is because people have not yet understood how powerful computers can be probably the man himself whose is beginning to privatise and monopolise the computers is jealousy of having other people to access such a wealth of information ah I do not understand people, recently I have seen people moving up I pray that they also have an insight in the usefulness of computers because we may be seen as people who are problematic yet we are not; it is because we understand how powerful and how important they are in assisting us in our teaching and learning.

I I also one time wondered how the people who do not go upstairs to harness the wonders of the computer / Internet can be used to formulate a policy on how a computer lab can be used at one time in the staff meeting situation making a policy that computers should only be used after school I can see that we are sharing the same views.

Teacher A: I so desperately wished to see them completing the course because I was praying but suddenly I do not know how they abandoned that opportunity.

I I thought that through this teacher development a few more teachers would gain that urge to harness the computers as exactly as you have developed yourself. I am disappointed with teachers here at [NNSS] for we have resources, we have up to date technology and the Internet that is permanent and simply instead of harnessing it we are fighting over it.

Teacher A: One last point I have looked at the demands of OBE those demands can be easily addressed by the computer. The computer is eh I don't know what to do all the information you need is there it can simplify the OBE for instance anyway Joy let us hope that our site will address our plight it just seems.

I Before we close is there any other thing you would like to tell me?

Teacher A: One other thing is that before I started becoming interested in the computer there were some teachers like MJ you know my bro but suddenly they just disappeared when I asked them why they never go back to the computer lab you know they said that they were harassed by the P and MJ apparently brought his kids who have got skills to help him on Sat but he was chased out of the computer lab and was forced to purchase his own home PC and he is no longer going there to the lab and even stopped taking his classes to the Internet. And Ms MN also disappeared Mr RM was beginning to get interested but he has bought his own computer. Apparently I understand that Mt MZ has also bought his own computer to avert the situation. And also it's a pity that I have a very old PC and I called someone the technician who came to fix our computers the other time. The guy said that this computer is old unfortunately I wanted to revert back to avoid but that in fact was a blessing in disguise I am adamant I am not going to back off until I realise that the kids at do have an opportunity and have access and every body goes there.

I Home computers can only help with teachers' preparations and organisation but will not be helpful in the teaching situation. Unfortunately you also once said that you go to neighbouring school to check your E-mail a very unfortunate situation?

Teacher A: Yeah in fact even yesterday was there I had to braze the storm because I was desperate I just wanted to hear from people from JHG because earlier on I spoke about Civics Literacy project whose money they sent a cheque of R2000 to implement the programme and just was used up by the administration. Having been frustrated by that I have been closed off from the Internet so that I do not access the People in JHG who are my managers in the civics literacy project so I had to go to this neighbouring school and I did get access. Access there is quite easy you just talk to a teacher and they just say oh come.

I That is how it should be here, these resources are meant to belong to the community as well.

Teacher A: In fact I did read the response from JHG; I accessed the Internet the teachers there are amazed by what is happening at [NNSS]

I What I like is your determination to see that such problems are solved I would urge you not to give up because I am your colleague too.

Teacher A: Sometimes I would spend some sleepless nights when I would see that sometimes you are not pleased with me / misunderstanding me to be creating some problems but because of frustrations I would urge you to help and you have really helped me to understand the computer formally and informally.

I I regret that such things happened and that I backed off and relied solely on Rhodes University facilities for a while.

Teacher A: I never wanted to do any harm to I just wanted to put a point to this fellow to kind of reason.

I It is because these resources are here through hard work and participation in these projects. These brand new resources came to the school. It frustrates me that is why some times I find myself loosing temper when you would insist for the keys and they are not in my possession at the same time I have 6 out of 6 periods to take care of, it is not easy to chase someone who always has keys in his pockets.

**Teacher A: Okay**

I Ok thank you so much-thank you!

\*\*\*\* END \*\*\*\*

~~~~~ Thank you so much for your time ~~~~~

How well does the GTP relate to and support the school curriculum? LQ9

| No of Learners | Themes | Responses |
|----------------|---|---|
| 8 | Helped to do my schoolwork in computers | <p>9.2 In my school work there was no problems. Because we did our schoolwork in computers, so I can say in participating in the GTP It helped us a lot in our schoolwork</p> <p>9.3 As I participating in the GTP it helped to know how to use computers and I can do schoolwork in the computers</p> <p>9.5 For starters I gained more knowledge and that helped me a lot with my schoolwork. The were things that I didn't know now I know because of the GTP</p> <p>9.6 It has helped me to handle some of the essays which demand the computer use</p> <p>9.8 I am going to participate more because I like to use computers and I going to learn more how to use computers and get more information</p> <p>9.16 It is dealing with a computer and I can find answers in the computer and is Maths in the computer</p> <p>9.20 I learn to communicate with other and how to use the computer</p> <p>9.26 It enabled me to do other project in the computer</p> |
| 6 | GTP makes schoolwork easier | <p>9.9 It contribute a lot because we also learn about what is going to our country and others so it makes our schoolwork easier than b</p> <p>9.11 It contribute a lot to me because the more information that I gave other students of different country and more they send me information. Some times we were dealing with the difficult problem and we desire to send to them to solve it for us</p> <p>9.13 I think I gained a lot of self-confidence to be myself and to be interested in my schoolwork, to have a vision.</p> <p>9.17 It increased my school marks at the end the year in my CASS marks</p> <p>9.23 It improved my school work</p> <p>9.25 It helped me a lot to other problems of my schoolwork</p> |
| 5 | Gives more information | <p>9.7 It contributed to me myself about countries that what we are doing is the same in my school its not different so far.</p> <p>9.21 It helped me with a lot of things like finding things like Business Economics notes or should I say information</p> <p>9.24 I'm not sure it is the part of my schoolwork</p> |

Appendix N

| | | |
|---|----------------------------------|---|
| | | <p>because at school we use it when we are going to check something in computer</p> <p>9.27 It helped me because in the Internet I saw a lot of things, so I gained lot information through the Global Teenager Project (GTP).</p> <p>9.30 It helped me to understand the different language and cultural. And what other children can do about their country's. How GTP helped them to communicate with other children</p> |
| 4 | Gained self confidence | <p>9.13 I think I gained a lot of self confidence to be myself and to be interested in my schoolwork, to have a vision.</p> <p>9.15 It make me enjoy more of my schoolwork</p> <p>9.28 It helped me a lot and mostly when I go back to my books I feel relaxed interested to know more and that helped me.</p> <p>9.29 My mind is now always think creatively and critically</p> |
| 3 | Contributed with currencies | <p>9.1 I contribute with currencies. And for further information about their knowledge</p> <p>9.19 Most questions that were asked, they were based in Business Economics questions like our currency here in SA and labour therefore they made me aware of.</p> <p>9.22 It contributed a lot especially the part of culture and even their currencies it helped me a lot in Business Economics</p> |
| 2 | Unclassified | <p>9.4 To participate in the GTP it does not distab my schoolwork nicely and I also nicely in the GTP</p> <p>9.10 A lot cause my mind is free cause some times we go to check something thing. The lab but that is only in BE class not in all class.</p> <p>9.14 It makes the school to have more education</p> |
| 1 | Makes school have more education | <p>9.14 It makes the school to have more education</p> |

How did participating in the GTP interfere with your schoolwork? LQ10

| No of Learners | Theme | Responses |
|----------------|---|---|
| 9 | Did not interfere | <p>10.2 As I already thought you there were no problems in my homework because it helped us a lot in our schoolwork</p> <p>10.3 It does not interfere my schoolwork because I do it in the time that I must do it in</p> <p>10.4 It doesn't interfere anything because I did my schoolwork as usual</p> <p>10.5 It didn't interfere at all because the teachers were the ones encouraging us to go to the computer lab</p> <p>10.20 It doesn't interfere nothing because I was doing it after school</p> <p>10.22 It didn't interfere because it was part of the schoolwork</p> <p>10.23 It did not interfere with my schoolwork at all, I enjoyed it</p> <p>10.29 It didn't interfere so much</p> <p>10.30 It was easy doing it because we finished some work and go to the computer</p> |
| 6 | Had positive interference | <p>10.1 It interfere at lab coz I get a lot of knowledge than there is in the classroom</p> <p>10.9 I was getting used to answer what I have learn from the information that I was searching for</p> <p>10.14 It interfere by having tricks and those tricks makes the work of students easy</p> <p>10.17 It might therefore the learners to increased their marks</p> <p>10.21 We get a lot of information about what we teach about</p> <p>10.28 I started passing it, had a positive interference in my school work and my English</p> |
| 4 | GTP was extra work and demanding | <p>10.7 The interfere about the Business Economics but to do work every day</p> <p>10.8 Because we are to learn more about GTP</p> <p>10.13 At some point it was confusing because I didn't know how to handle both but somehow I go into terms with it</p> <p>10.19 Questions that were asked by other students they made me-</p> |
| 4 | Developed more interest in computer than schoolwork | <p>10.10 I loved the GTP that made me not to work but to think about computer</p> |

Appendix O

| | | |
|---|---------------------------------------|--|
| | | <p>10.11 It interfere in my schoolwork is that when I get to the computer lab I enjoy and forget sometimes</p> <p>10.12 It was demanding because we spent a lot of time in the computer centre</p> <p>10.16 It was so demanding in our schoolwork cause we were spending a lot of time in the computer</p> |
| 3 | When GTP was done during class period | <p>10.18 By leaving to go to the computer lab to type letters to those children in the GTP when its our period</p> <p>10.25 It interfere to my schoolwork because we did the project during schoolwork</p> <p>10.26 I had to do it in school hours</p> |
| 1 | Not developing more computer skills | <p>10.6 I am not developing more knowledge in my computer work</p> |

How do you think the GTP helped or hindered your teacher? LQ7

| No of Learners | Theme | Learners' Response |
|----------------|---|--|
| 11 | Able to teach learners how to use computers | <p>7.6 It helped my teacher to be more serious of teaching us how to use a computer</p> <p>7.12 It helped to know more about each other and helped us to use computers</p> <p>7.16 I think it helped her a lot because we are understanding more than we were before we go to the project</p> <p>7.17 It think it helped a lot and I don't think teacher may be hindered because they gave us support to learned other thing that we didn't know</p> <p>7.18 It helped the teacher because now she can see that we can with to other students in other countries</p> <p>7.20 She help other students from learning the computer</p> <p>7.24 It helps to teach us first and then she/he must share after finishing to know it. Share another people</p> <p>7.25 Our teacher is the one who introduced us to the computers from the first we touch the computers</p> <p>7.26 She was able to introduce us to computers</p> <p>7.28 My teacher was her first time teaching computers at school, it helped her emotionally because it was her dream to teach us computer</p> <p>7.29 It helps because we now can use computers without help from a teacher</p> |
| 9 | Helped teacher to use computers | <p>7.1 Coz some of learners did not know how to communicate with other learners which are over sea and are not in our country</p> <p>7.2 I must say it helped our teacher because now she knows how to use computer so it helped us too, because she is trying to teach us too.</p> <p>7.3 It helped teacher how to use computers and how to communicate to other teacher in the computer so that they must teach us how to use computer</p> <p>7.4 It helped our teacher to use a computer to communicate to another teachers around the world.</p> |

| | | |
|---|-------------------------------------|--|
| | | <p>7.7 It helped. As my teacher to now more about the skills of computer and about the way of learning with classes and the way of life of others</p> <p>7.8 They teach our teachers how to use computers and teach us and give them more information about computers</p> <p>7.11 I think my teacher gain something that he/she does not know before and she transplant her information to us as student. Students also share their information with her.</p> <p>7.14 It helped the teachers to have more skills and many knowledge</p> <p>7.15 It helped her to learn more skills</p> |
| | | |
| 3 | Teacher to know learners better | <p>7.13 I think that the teacher was helped understand more about teenagers, what they think their feelings and so on and so on</p> <p>7.27 It helped my teacher because during the project she could get to know her learners better</p> <p>7.30 It helped to teach our teachers who don't understand our culture to understand like, how many do we leave in my house. Do we leave with my sister brother.</p> |
| 3 | Learned a lot about other countries | <p>7.9 It helps us about information about what is going on to other countries and their schools. It helps their work easier. I mean our teachers</p> <p>7.21 It helped her a lot cause she still doing it with other classes and get information about it</p> <p>7.22 It helped her a lot cause she still doing it and get information about it</p> |
| 1 | Teacher to be committed to work | 7.23 To be more committed in their work and to work harder |
| 1 | It gave problems to the teacher | 7.10 It did give some big problems to my BE teacher cause was the only one who knows about the GTP and she work on her own. |

What did you enjoy most in the project? LQ 3

| No of Learners | Themes | Responses |
|----------------|--|--|
| 7 | Communicating with other learners | <p>3.1 I enjoy to communicate with other learners in their countries</p> <p>3.4 I enjoy the Global Teenager Project because I communicate with others</p> <p>3.5 What I enjoyed was to communicate with other children around the Globe</p> <p>3.6 I enjoyed the communication between us and the learners in other countries</p> <p>3.7 I enjoy to communicate with other country and learners of other schools in overseas</p> <p>3.20 To communicate with other students outside the country</p> <p>3.24 I enjoy to meet other students and know how to use it</p> |
| 17 | Working with computers | <p>3.2 I enjoy working in computers and get more knowledge</p> <p>3.3 I enjoy how to use computers and to contact the other learners in other places</p> <p>3.8 I enjoy to use computer and learn how to use computers</p> <p>3.12 I enjoy how to use a computer</p> <p>3.13 I enjoyed finding out new things that I didn't know the computer can do</p> <p>3.14 I enjoy to use the computer and find more knowledge about computer</p> <p>3.15 Is to open a computer and get more knowledge</p> <p>3.16 I enjoyed to know more about the computer, how to handle a mouse and the keyboard. Handling a mouse, that was so nice and enjoyable</p> <p>3.18 Using a computer to write to other students in other countries like Ghana through Internet</p> <p>3.19 I enjoyed using computers and also I liked very much to communicate with other students from outside SA</p> <p>3.21 Is the fact that we all get a chance to use computers and get to know other people</p> <p>3.22 I enjoy using computers, finding information about other places</p> <p>3.25 To learn how to use a computer</p> <p>3.26 Using computers for the first time</p> <p>3.27 To use a computer</p> <p>3.28 I enjoyed talking with it, also playing games in it</p> <p>3.29 I enjoy using computers</p> |
| 4 | Answering questions from other schools | <p>3.9 You search for knowledge and information about your country and give to the other country</p> <p>3.10 Answering questions to other schools, doing projects</p> <p>3.11 I enjoy to work with other students that are out of this country, the computer make us learn together with them</p> |

Appendix Q

| | | |
|--|-------------------------|---|
| | | 3.23 When we were asked to find the business Acts |
| | Others/
Unclassified | 3.17 I enjoy because it was very impressed because we were corporated
3.30 I enjoy when we speak English some student do speak real English we laugh at each other |

What did you least enjoy about the project? LQ4

| Learner | Responses |
|---------|--|
| 4.1 | To know other situation of other learner's in their country |
| 4.2 | We enjoyed working with our teacher and we enjoyed working in computers |
| 4.3 | I enjoy how to share something with the other learners in the other schools |
| 4.4 | I enjoy to send the message in computer to nearest countries eg Zimbabwe |
| 4.5 | To know or to get more knowledge |
| 4.6 | The fact that I used the computer and it was a challenge and demanding a lot of information |
| 4.7 | Enjoy to be uses the computers get Internet at the computer to express our themselves |
| 4.8 | To use computer and answer questions |
| 4.9 | You search for knowledge and information about your country and give it to the other country |
| 4.10 | Early this year |
| 4.11 | I enjoy to communicate with other different kind of student like Ghana, Uganda etc |
| 4.12 | I enjoy to use mouse and keyboard |
| 4.13 | As I have indicated above new discoveries of course |
| 4.14 | Is to email for the other countries |
| 4.15 | Is to send more emails to friends |
| 4.16 | Handling the mouse, that was so nice and enjoyable |
| 4.17 | Some other things in the work |
| 4.18 | Having a chance to communicate and know differences between these schools from Ghana and US |
| 4.19* | I enjoyed everything there was nothing I enjoyed least |
| 4.20 | I enjoy to communicate to others |
| 4.21 | Is the thing that we get a chance to use a computer with the teacher and teach us other things |
| 4.22 | Communicating with other schools from around the world |
| 4.23 | The services of the South African Reserve Bank |
| 4.24 | To do computer games, how to check the or communicate to another students outside |
| 4.25 | To communicate with other schools out of the country |
| 4.26* | Not having enough time to use a computer |
| 4.27 | Write letters to pen pals on the computer |
| 4.28 | Playing games in it |
| 4.29* | Difficulties of using computer |
| 4.30 | How it is in other schools when the is boy school and girls school it must be fun |

NB: Only 3 Learners* understood the question

What difficulties did you experience during the project? LQ 5

| No of Learners | Themes | Responses |
|----------------|--|--|
| 13 | Slow at using computers | <p>5.2 My team experience during the project they don't know how to use computer</p> <p>5.4 To use a computer it was very difficult because it was our first time</p> <p>5.5 We only had one problem which was that we weren't computer literate</p> <p>5.6 We struggle a bit because it was the first time for using the computers</p> <p>5.12 Is to send an email</p> <p>5.13 I think when were taught to handle the mouse, now that was very difficult</p> <p>5.14 We have experience that the computer need a quick mind and fast</p> <p>5.15 They don't use their fingers quickly, so they are so slowly</p> <p>5.16 I think it was when we were doing the e-mail addresses that was very difficult because it was hard to understand</p> <p>5.17 We were having some problems here and there because we were needed more practice to learn it</p> <p>5.28 We faced problems, like we took time printing [typing] words because we no used using it</p> <p>5.29 At first it was difficult to use a computer</p> |
| 6 | No difficulties | <p>5.19 There were no difficulties at all everything went smooth and nice</p> <p>5.20 Nothing was difficult because there was someone who help</p> <p>5.22 There were no difficulties</p> <p>5.24 In my team no one had problems all of us we didn't have a difficulty</p> <p>5.25 There were no difficulties</p> <p>5.30 Nothing much but there was a time we wanted to communicate with other countries with their language but it was not easy we did not understand</p> |
| 3 | Unclassified | <p>5.1 How much is it to go to their country and their holidays</p> <p>5.11 The difficulties that we deal with my team is that there are things that we do not do alone as a team without contacting other group</p> <p>5.21 Is to send the e-mail and to talk to other people</p> |
| 2 | Some schools asked difficult questions | <p>5.7 Things that are difficult are questions of the schools that are pusificate with this project</p> <p>5.9 We experience that it is not easy to find information about your country because you have to buy newspapers as well</p> |

Appendix S

| | | |
|---|--|--|
| | | |
| 2 | Did not have enough time | 5.3 We don't have a lot of time to do this project we just use it in the time we have
5.8 We've got a short time to do our project because we use computer during our periods |
| 1 | I worked alone others just joined later | 5.10 I had no team I use to work alone and they will join after I did everything. I had no hard time |
| 1 | Not knowing whether the names were for a boy or a girl | 5.18 Having to guess whether these names of people/ students are names of boys or girls |
| 1 | Too many on one computer | 5.26 There were too many of us on one computer because then we had very few computers |

Why would you participate or not participate in a future GTP? LQ11

| No of Learners | Theme | Responses |
|----------------|-------------------------------------|---|
| 12 | Want to learn more | <p>11.2 I can say I would participate if I had chance in GTP because I want to learn more</p> <p>11.4 I participate because I want to learn more about students outside South Africa about their lives</p> <p>11.7 Because we want to developed more about skill of Global Teenager Project</p> <p>11.9I would participate in a future because I want to learn more what is going on around the world</p> <p>11.14 The reason I would participate in GTP I enjoy to be part of it because it gives more skills</p> <p>11.15I want to know more skills, more knowledge and become successful in life</p> <p>11.16 I would participate because there is still more and a lot of things I would like to learn</p> <p>11.17 I think I would learn more about the project</p> <p>11.18 I would love to participate so that I can know more about the way the other countries do things</p> <p>11.21 I would participate because it keep my mind openly</p> <p>11.22 Because I enjoyed my participation in the GTP</p> <p>11.25 I would like to participate because in the future in the GTP so that I can learn other about other school</p> |
| 7 | GTP is good for us and is enjoyable | <p>11.10 It is not about why, it is about getting the right treatment cause this is a good thing to do for us</p> <p>11.11 I want to continue participate in this project because there are things that I was not know, but now I know something</p> <p>11.12 Things that we were taught were enjoyable and I learn a lot that's why I would participate again</p> <p>11.13 There is no reason not to participate because GTP is fun, enjoyable and very nice</p> <p>11.23 Because I enjoyed my participation in the GTP</p> <p>11.24 I would like to go on participate in GTP in future so that my life goes on</p> <p>11.27 It is fun and you meet people through the Internet</p> |
| 4 | To know more how to use computer | <p>11.3 I want to know how to use computer and contact the other learners</p> <p>11.5 I would participate because I would like to know more about computers</p> <p>11.28 I will always participate because instead do my best in computers mostly</p> <p>11.29 I would participate so that I could get more information about how to use computers</p> |

| | | |
|---|----------------------------------|---|
| 3 | Will miss GTP being in grade | 11.19 As a grade 12 student I will no longer study at Nyaluza and this is how I will miss GTP
11.20 By getting connected in technical Institution
11.26 As a grade 12 student I am leaving high school so I won't be able to participate in the project |
| 2 | Unclassified | 11.6 Because I would like my children to also be allocated into the project
11.30 Because there will be no computer teacher who will be enjoying this project like my best teacher Mrs Joy |
| 1 | To have foreign friends | 11.1 I would like to have a friend which is not here so that I can get another knowledge |
| 1 | We are sharing views with others | 11.8 Because in GTP we are sharing our views with other students and answering their questions |

What should be done differently next time? LQ 6

| No of Learners | Themes | Responses |
|----------------|----------------------------------|---|
| 5 | No change is necessary | <p>6.19 At the moment it is still fine, I see no change that should be done</p> <p>6.20 Nothing should be done this is perfect</p> <p>6.21 I don't think the GTP should be something to be changed I like it the way it is</p> <p>6.22 I think its fine and I don't accept anything to change</p> <p>6.30 Nothing in mind but when they speak about something in English they must also use their language</p> |
| 5 | Teach learners computer literacy | <p>6.2 I think we should be taught how to use computers in after school</p> <p>6.12 Teachers to be patient when they are teaching learners how to e-mail</p> <p>6.13 Nothing much, it's just that teacher should be patient with us learners</p> <p>6.15 We must learn to listen very carefully</p> <p>6.28 I think it could be better, if we be in lessons of how to make our fingers use it and fast</p> |
| 4 | Participate in project again | <p>6.3 We are going to have this project whenever we want at least after school</p> <p>6.4 Next time we should be done differently because is going to be our second time using computer</p> <p>6.5 I think next time we would do better because now we have computer classes</p> <p>6.6 I think that this project should be taken more seriously cause the more you are online the more become intelligent and developing skills</p> |
| 3 | Ask a different question | <p>6.7 Next time differently we should do is to ask a different question</p> <p>6.11 Next time we want to make a discussion about HIV/AIDS. We want to find more information about how to prevent HIV/AIDS</p> <p>6.23 To expand their activities meaning to create more activities</p> |
| 3 | Unclassified | <p>6.9 They must tell us before time so that we can prepare our selves about what we are going to talk about</p> <p>6.24 I want to work very hard in my schoolwork so that I join the GTP</p> <p>6.26 Students must communicate directly through</p> |

Appendix U

| | | |
|---|--|---|
| | | the computer without having to send email [chat |
| 2 | All learners must join GTP | 6.17 I think other learners must attend to the Global Teenager Project
6.29 I would like more learners to be given chance to participate in the project |
| 1 | To do the project during school time | 6.8 To do our project during school time |
| 1 | Learners to teach other learners | 6.14 Next time we must learn how to teach other students [√] |
| 1 | Decrease number of learners on each computer | 6.16 I think they would try to decrease the no of pupils in each group so that it would be easy to use a computer and understand |
| 1 | More time to do project in computer | 6.25 To extend the time of doing the project |
| 1 | Rewards for learners | 6.10 When they bring up projects we should get something also cause we work hard at the end of the project, the school get credits us nothing but thank you |
| 1 | Visit them in their country | 6.1 How can we do if we want to visit them in their countries |

How did the GTP enhance or hinder your learning? LQ8

| No of Learners | Themes | Responses |
|----------------|--|--|
| 8 | Learn how to communicate with other learners | <p>8.1 I learn how to communicate with other learners that are overseas. How to use a computer and do other projects in a computer. I learn a lot of information</p> <p>8.2 I learn how to print words in a computer and in we did learn how to be contacted with person overseas. So I did learn more about participating in the GTP.</p> <p>8.3 I learn that you can communicate with other learners in the other countries with out seeing them</p> <p>8.9 I've learnt that how to communicate with others from other countries and tell us their education system</p> <p>8.10 To communicate with other schools are doing about the life of the youth of now. Also other school use school computers everyday, us we just go when the teacher is free that means we go when they feel like it.</p> <p>8.11 I learn how to communicate with other students of different ages. I learn how to use a computer</p> |
| 6 | Learn how to use computer | <p>8.4 I learn how to start to use a computer, how to send the emails, and I learn how the students are doing their schools outside South Africa</p> <p>8.16 I learn that being computer literate it is a very good thing because the are many chances for you to get a job</p> <p>8.20 How to use computers</p> <p>8.21 How to use computers and talk to other people</p> <p>8.27 How to use a computer. How to write a letter to someone you do not know</p> <p>8.28 I learned how technology can help in the future of this country and how is important to know computers</p> |
| 4 | Got information about other countries | <p>8.5 I learnt many things about other schools and how they do things in their countries</p> <p>8.17 I learned more things in Global Teenager Project</p> <p>8.22 About how people in other countries live and I learned a lot about their culture, customs etc</p> <p>8.26 I learned that students from other countries are as fascinated about lifestyles as we are of theirs</p> |

Appendix V

| | | |
|---|---|---|
| 3 | It was demanding a lot was to be done | <p>8.6 I have learnt that it's a good thing for us or for me to participate on this project because it's a challenging and demanding a lot to be done</p> <p>8.7 I learnt a lot participating with this project because it gives me a challenge to do work. Every day and it tell me about what happened in other countries.</p> <p>8.23 To be serious in every thing I do and to work hard</p> |
| 3 | Learn that we must share our views with other countries | <p>8.8 I learn that we must share our views with other learners</p> <p>8.25 To work as a group is a good thing and communicating to other school</p> <p>8.30 I learn to work together as a group of students. When we do something that is no easy we help each other we stand by our self and do what we supposed to do</p> |
| 2 | To listen and be patient | <p>8.12 I learn to listen and help each other and to be patient with others</p> <p>8.24 I learn very important things, many. First I learn a respect each other so that the work must go on, learn personal details for e.g. Names & Surnames and our addresses</p> |
| 2 | That teenagers think the same | <p>8.29 I learn to be confident about myself.</p> <p>8.13 I learnt that the youth in fact teenagers think commonly and do things almost the same. There were lots of jokes it was nice</p> |
| 1 | Teacher respected us more | <p>8.15 The way the teacher treat us with more respect</p> |

Is there anything else you would like to tell me? LQ 12

| No of Learners | Themes | Responses |
|----------------|--|---|
| 15 | Enjoyed participating and GTP should go on | <p>12.5 There is only one thing which is that I really enjoyed participating in the GTP I can't wait for next time</p> <p>12.6 I would like to say the one who came up with this GTP must keep on maintaining the good work</p> <p>12.11 Yes I would like to tell you that in this GTP project my life I will spent to it</p> <p>12.12 Yes, To use a computer it is so nice and so nice is so enjoyable to teenagers like me</p> <p>12.13 Yes, I think being a teenager is the most fun part of life, so one should cherish every moment like it's the last. GTP is the best!</p> <p>12.15 I would like to continue with this project if there was a chance again</p> <p>12.16 Yes its good to be a teenager cause you have lots of good things to do</p> <p>12.19 Your project was helpful it was really interesting I wish you not stop it</p> <p>12.20 It was nice because we enjoy it and it help us to make friends outside the country</p> <p>12.21 Is that the GTP should not be stopped because we are being helped by it</p> <p>12.23 No there is nothing I want to tell instead of my enjoyment in GTP</p> <p>12.24 I would like teenagers of today's must corporate in GTP because is very important in life</p> <p>12.25 I think the GTP was interesting I think they should do more for others in the future</p> <p>12.26 The project was interesting I hope you would do the same in the future for the others</p> <p>12.28 Yes, I would like the GTP to go on because as a future of SA we want this country to be technological advance</p> |
| 5 | Would like to thank the teacher | <p>12.2 First I would like to thank you about bringing to us this project. We did learn more about the computers</p> <p>12.4 I thank my Business Economics teacher to give us an opportunity to participate in the GTP because we learn how to use a computer we did not use it before</p> <p>12.7 Yes I want to say thanking you for coming with this project in our school. Because we learn now a lot</p> |

Appendix W

| | | |
|---|---|--|
| | | 12.22 Thank you very much for doing this it helping us a lot
12.30 It was really good project for me. I enjoyed it, it was good thanks to my good teacher Mrs Joy very much for everything |
| 3 | Nothing more to say | 12.17 No
12.18 No
12.29 No |
| 2 | Teachers should stop kicking learners out of the computer lab | 12.9 The was difficulties during GTP because teachers were ignoring us that we are using broken English
12.10 The teachers should stop kicking us out just because they are teachers and they expect us to do good for the school |
| 1 | GTP contributes to the school standards | 12.14 GTP makes the school to be in a higher standard of education and skills |
| 1 | Now have confidence in using computers | 12.3 I want to tell you that I learn more about how to use computer I can contact the other Learners |
| 1 | Want like to learn more | 12.8 I would like to tell GTP that they give us more information about computers and we want to learn more |
| 1 | Would like to visit them | 12.1 I would like spend two weeks with them one week in our country and one week in their country |