

INTERNSHIP REPORT: A CASE STUDY OF
INTERNET USAGE AT ST. JOHN'S COLLEGIATE

CENTRE FOR NEWFOUNDLAND STUDIES

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INTERNSHIP REPORT: A CASE STUDY OF INTERNET
USAGE AT ST. JOHN'S COLLEGIATE

By

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An internship report submitted to the School of Graduate
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Abstract

This report describes my observations and activities during an internship period at St. John's Collegiate. It also focuses on a research component on teacher's use of the Internet in an environment of unrestricted access I compiled while at the school.

Chapter One provides an overview of the internship setting, the goals, the critical reflection, and the research component of the internship. Chapter Two presents the case study on two teachers' use of the Internet. This study was undertaken as part of a broader study to examine the effect on high school teachers of direct and unrestricted access to the Internet. I interviewed two teachers in an open-ended interview on a range of topics including, factors which led to their continued use of the Internet, how they are making use of the Internet, problems encountered when using the Internet, and changes in teachers' views of education due to Internet use. Chapter Three is a reflective summary of the internship experience and focuses on the roles of the learning resource teacher with particular emphasis on the following areas: the general administration of the resource centre, staff and student use of the resource centre, and the duties and responsibilities of the resource teachers.

Both teachers involved in the case study were clearly deriving significant benefits from their Internet use; it allowed them to access relevant, current information for their own professional use and to locate educational sites for the benefit of their students. As a consequence, both were confident they would continue to be avid Internet users.

Acknowledgements

The completion of this report is due, in large measure, to the constant support and encouragement of David Bradley, who also read an earlier draft. In addition, I am grateful for the support of my parents, Anthony and Barbara Downey, who allowed me to pursue an interest in higher education, despite the demands of raising a large family.

The learning resource teachers and staff of St. John's Collegiate provided a welcoming, collegial atmosphere, which enabled me to readily participate in the daily routine of the Resource Centre. I also appreciated the cooperation of the teachers I interviewed for the research component of this report, which allowed me to gain valuable insight into teachers' use of the Internet.

Finally, I acknowledge the encouragement and advice of my supervisor, Dr. Jean Brown, who initially suggested that I pursue a master's degree in Learning Resources, and provided the motivation necessary for me to complete this report.

TABLE OF CONTENTS

	Page
ABSTRACT.....	ii
ACKNOWLEDGMENTS.....	iii
CHAPTER ONE:	
OVERVIEW OF THE INTERNSHIP.....	6
Introduction.....	6
Internship Setting: St. John's Collegiate.....	6
Goals of the Internship.....	8
Internship Experiences.....	10
Critical Reflection and Research Component.....	11
Organization of the Report.....	12
CHAPTER TWO:	
A CASE STUDY OF INTERNET USAGE - TWO USER PROFILES	14
School Environment.....	14
Teacher Use of the Internet.....	15
Methodology.....	16
Teacher Profiles.....	18
Pre-Internet Attitude.....	19
Unrestricted Access.....	20
E-mail Use.....	22

Research via the Internet.....	23
User Support.....	26
Internet-Related Frustrations.....	27
Teacher Home-pages.....	29
Conclusions.....	30
CHAPTER THREE:	
CRITICAL REFLECTION.....	32
Introduction.....	32
Roles of the Learning Resource Teacher.....	34
General Administration of the Resource Centre.....	34
Staff and Student Use of the Resource Centre.....	37
Duties and Responsibilities of the Learning Resource Teachers.....	41
Conclusion.....	47
REFERENCES:.....	48
APPENDIX A:.....	51
APPENDIX B:.....	54
APPENDIX C:.....	56

CHAPTER ONE

Overview of the Internship

Introduction

In partial fulfilment for the degree of Masters of Education, I elected to complete an internship in school resource services. While the Teaching and Learning program provided an adequate theoretical background, the internship study augmented the course work and completed my training as a learning resource teacher. This was beneficial because, as a junior and senior high French teacher for fourteen years, I had no experience in the field of learning resources. Undertaking an internship appeared to be the best means of acquiring many of the skills essential to working in this area. Under the guidance of both an on-site supervisor and a graduate supervisor, I was able to gain practical work experience, and to develop a degree of professional competency in the field.

Internship setting: St. John's Collegiate

St. John's Collegiate,¹ in St. John's, Newfoundland was an ideal setting in which to pursue an internship study in learning resources for a variety of reasons. As a model technology school, St. John's Collegiate boasts the latest in computer technology -- a local area network with one computer in every classroom, and a multi-media facility --

¹ Name is fictitious, to protect the confidentiality of the school.

providing an ideal educational setting for in-depth training in the use of technology. Moreover, staff members are receptive to the idea of implementing technology across the curriculum, and the learning resource teachers are active participants in this initiative.

St. John's Collegiate has been pursuing a resource-based learning strategy -- specifically resources accessed through technology -- for several years, which allows for the examination of a number of related issues: the integration of technology in various subject areas; the provision of professional development under the current financial restraints; and the engendering of positive teacher attitudes towards a new approach to education, despite inadequate access to formal training and limited experience in the area. This strategy has been accomplished at St. John's Collegiate, in part, because, as teachers acquire new skills essential to this integration, they serve as mentors to their colleagues, thereby contributing to their professional development. This internship project, therefore, provided an opportunity to examine how one school has succeeded in integrating technology use through the combined efforts of its learning resource personnel and teaching staff. Considering its skilled personnel and well-equipped resource centre, St. John's Collegiate was an appropriate internship setting for developing a wide range of competencies in the learning resources field. In addition, the direct and unrestricted Internet access at St. John's Collegiate easily facilitated a case study on teacher's use of the Internet.

Goals of the Internship

My primary objective in pursuing this internship study was to develop the professional skills and knowledge necessary to become a competent learning resource teacher. The internship study provided a valuable opportunity to develop the skills and knowledge within an educational setting under the guidance of trained professionals. As an intern, I observed the various duties of a learning resource teacher and participated in numerous activities including cooperative program planning sessions between classroom and learning resource teachers, and team meetings concerning professional development and use of technology in various curricular areas. I also examined the school's technology plan and observed activity in the resource centre which added to my base of knowledge. As well, I observed and participated in class sessions, including team teaching. Further, I examined the role of professional development in the successful implementation of technology by participating in planning sessions for and attending a teacher in-service at the school. This allowed me to observe teachers' attitudes and expectations and to witness their evolution through the process of technological integration, while considering the role of the learning resource teacher in professional development. In addition, I investigated how unrestricted Internet access has influenced teachers' use of technology for the research component of my internship. The case study of two teachers focusses specifically on how they are making use of the Internet, both for professional purposes and in the classroom.

Through my internship activities I was able to achieve the following objectives:

1. further develop the skills and knowledge base necessary to become a qualified learning resource teacher
2. increase the knowledge and skills necessary to take an active role in both curriculum and staff development
3. use a variety of productivity and communication software, including: HTML, Powerpoint, Microsoft Word (word processing), PaintShop Pro, Eudora, and Winschool.
4. develop skills and knowledge in cooperative program planning and team teaching
5. increase competence in assessing the merits and shortcomings of various information sources with particular emphasis on Internet resources
6. increase knowledge and understanding of current developments in curriculum, instructional strategies and new technologies

Internship Experiences

Learning resource teachers have an integral role to play, both in the shift to a resource-based approach to teaching and in assisting teachers with the integration of technology. An equal partnership between classroom teachers and resource teachers facilitates this process. Learning resource teachers know how to access, organize and use resources effectively, while classroom teachers are well acquainted with learners and the material to be taught. Thus, a partnership between learning resource teachers and classroom teachers is vital to the successful implementation of technology across the curriculum. Throughout my internship, I was involved in all aspects of the learning resources position as a member of the learning resources team. To develop my skills in this area I undertook the following activities, under the supervision of the learning resource teachers:

1. observation and participation in the various duties of a learning resource teacher, including: cooperative program planning and team teaching; assisting students with accessing information in print, electronic and multimedia formats; and participating in professional and staff development programs on the effective use of resources, including "just-in-time" training and meeting with teachers to plan for technology use in their teaching
2. observation of learning resource teachers in consultation with colleagues

3. observation and participation in program planning sessions
4. observation and participation in class sessions and team teaching
5. involvement with the integration of technology in various curricular areas and discussion of these issues with teachers
6. observation and informal assessment of teacher attitudes about implementing technology across the curriculum
7. increased experience in the provision of library services, both by adding to the automated collection using the Columbia Library System and by providing basic library services to staff and students
8. completion of the research component of the internship

Critical Reflection and Research Component

As part of the critical reflection, I considered the learning resource teacher's role in implementing resource-based learning with particular emphasis on the integration of technology. As a consequence, my literature review focussed, in part, on the roles of the learning resource teacher. This approach supported the critical reflection, and I examined documents on teachers' use of the Internet, much of it from on-line sources, to

provide a background for the case study. I participated in a ongoing study on teachers' use of the Internet to complete the research component of the internship.

The use of participant-observation as a means of collecting data for the critical reflection was conducive to an in-depth examination of the roles of learning resource teachers, including the general administration of a resource centre, staff and student use of the resource centre, and the duties and responsibilities of learning resource teachers at St. John's Collegiate. I was also able to observe how teachers in particular curricular areas have integrated the use of technology. In conclusion, this study addressed many of the issues pertaining to the integration of information technology across the curriculum, and the role of learning resource teachers in that process. It provided me with valuable insight on these matters which I can carry to other schools.

Organization of the Report

The internship report consists of two components: a placement component with a reflective, critical discussion of the value of the activities undertaken in meeting the specific objectives outlined in this internship proposal; and a research component. I kept detailed notes and a daily journal of internship experiences which informed the critical reflection component and participated in a study on teacher's use of the Internet for the research component. The report consists of three chapters: chapter I provides an

overview of and an introduction to the internship; chapter II reports on the research component; and chapter III is a reflective summary of the internship experience.

CHAPTER TWO

A Case Study of Internet Usage - Two User Profiles

School Environment

The study was set in St. John's Collegiate, a senior high school, centrally located in St. John's, Newfoundland. The school has an enrollment of approximately 700 students with a teaching staff of 40, and offers both French immersion and English stream programs. In the mid-nineties, St. John's Collegiate undertook an initiative entitled *Vision 2000*, to create an electronic learning centre. It was developed in three phases to provide the technology rich environment which now exists there and is part of an ongoing process of school improvement. As part of this initiative, each department assessed its technology needs to ensure that further acquisition of technology is both appropriate to student need and fulfills curricular requirements. In the technology plan, teachers have also indicated how they are utilizing the technology which now exists in the school. As a result, the school currently operates a local-area network with one computer in each classroom, three computer labs (including the Learning Resource Centre), each with a minimum of 25 computers, a multimedia lab and direct and unrestricted Internet access (64 k).

Teacher Use of the Internet

Becker's (1998) research on teacher's use of the Internet found that three factors contribute to high Internet use by teachers: an Internet connection in their classroom, particularly a high speed connection; having computer expertise; and a belief that the Internet has some relevance for their primary instructional goals. Becker also found that teachers were more likely to use the Internet for professional tasks if they participated in staff development relating to Internet use or if they had a high level of informal contact with other teachers at their school, which helped to cultivate positive attitudes towards the benefits of Internet use in the classroom.

In a similar study, Ravitz (1998) concluded that communication with other staff members about Internet use and teacher's perception that students could benefit from it were also good indicators of teachers' use of the Internet. In addition, he suggested that, according to Internet using teachers, administrative support along with technical training and resources are also important factors in fostering Internet use.

Jenkins (1999), on the other hand, suggests that although resources and technical expertise are important to integrating information and communication technologies (ICT), and a shortage of computers combined with the high cost of an Internet connection may be prohibitive for many schools, the biggest barrier is in transforming teaching. Teachers must create an environment that is conducive to learning in order to support and facilitate learning.

Egnatoff (1996) maintains that the most effective training and support often

comes from teachers themselves. Support provided by colleagues via e-mail and computer conference systems allows teachers to take a measure of responsibility for their own professional development.

According to *CyberAtlas (1998)*, an on-line marketer's guide, teachers use the Internet chiefly in the gathering of information for lesson preparation. Use of e-mail to contact teachers at other schools was reported to be less frequent; however, it was more likely to occur among teachers who had Internet access both at home and at school.

Meanwhile, in a survey of librarians' Internet use, Logan (1998) reported that the main concerns about the Internet were the accuracy of information, the availability of objectionable material, and the amount of time required to access sites. These concerns would also be applicable in an educational setting. However, respondents also reported that they now have access to information sources that would otherwise be unavailable, and that information is much more current. This study also concluded that there is a positive correlation between collaboration among colleagues regarding Internet use and the number of hours a day the Internet is accessed.

Methodology

While at St. John's Collegiate, I participated in a broader study, corresponding with my own research, (see Appendix A) to examine the effect on high school teachers of direct and unrestricted access to the Internet. As a member of the study team, I was able to use the data I collected to complete my own research. The study, initiated by the

resource teachers, focused on how teachers were making use of Internet access available at the school, and overlapped with my original proposal to gain insight into how teachers utilize the Internet as a tool. The purpose of the study was to investigate the effect of direct and unrestricted access to the Internet on a group of high school teachers, to explore barriers encountered when using the Internet, to determine factors that influence continued use of the Internet, and to identify transitions experienced from using the Internet.

At the beginning of the study, participating teachers -- solicited from the staff of forty -- received teacher-participation consent forms along with the initial set of research questions. Participants were later invited to an orientation meeting to raise any questions or concerns. The coordinators randomly assigned each participant to a member of the study team, which included the writer. Participants were requested to keep a journal of their Internet related activities, to use the Internet daily and to share comments, questions, and perceived problems with the research team via e-mail and monthly meetings. Data was collected in a number of ways. Participants were interviewed both formally and informally, and took part in meetings about relevant topics generated from various interviews. Secondary data was comprised of personal reports, log books and messages generated by participants.

My research concentrated specifically on the formal interview questions -- an open-ended interview which generated discussion on a range of topics including factors which lead to continued use of the Internet, ways teachers are making use of the Internet,

problems encountered when using the Internet, and changes in teachers' views of education due to Internet use. I interviewed two of the teachers who volunteered to participate in the study. This paper does not offer any report on the findings of the larger study, but instead focuses on the experiences of two teachers I interviewed, both of whom were then availing of Internet access at St. John's Collegiate.

Teacher Profiles

Teachers and students at St. John's Collegiate have direct and unrestricted access to the Internet, provided through a research partnership with Newtel Communications. As a consequence, a majority of teachers at the school are using the Internet, to varying degrees. The two teachers I interviewed are of the same age group -- late-twenties to mid-thirties -- but have very different training and experience. They teach different subject areas, and deal with students of contrasting abilities; yet, their Internet use is similar in many ways.

Teacher One has used the Internet since the inception of STEM-Net at Memorial University of Newfoundland. She was present at the initial STEM-Net information session during which the rudimentary connections with PINE and GOPHER were described, and was also among the first to have a STEM-Net account which provides teachers with 10 hours of free Internet access per month. Although no training assistance was available at the time, Teacher One was able to communicate via e-mail and also learned how to up-load and down-load information. Her expertise advanced as the

Internet developed, and she learned primarily through trial and error. While she is currently responsible for teaching chemistry, Teacher One has also used the Internet extensively in her previous position as Science coordinator with a St. John's school board.

Teacher Two is in her first year as a special-needs teacher at St. John's Collegiate, and had never used the Internet prior to this year. Other schools where she has worked offered only a limited number of Internet accounts, and she was not among the teachers selected to have access. This situation is typical for many teachers in schools across the province. Although any teacher can acquire a STEM-Net account providing ten hours of free Internet access per month, unless they have access to a computer, either at home or at school, work in an environment which fosters technology use, or have a personal interest in Internet use (i.e. for a university course), many do not obtain an account and many others use it only infrequently. However, at St. John's Collegiate, teachers can access the Internet in the learning resource centre, the technology lab, the multimedia lab, or through their own classroom computer. There are no restrictions either to computer access or to the Internet, an atypical environment of truly unlimited access.

Pre-Internet Attitude

Both teachers had considerable experience using computers before availing of the Internet. Each had completed university-level computer courses and used computers extensively both for word processing at university and in their teaching. Teacher One

also used a “mark-book” program for grading her classes. She was motivated by the facility of these programs and appreciated... “not having to do all [her] calculations at the last minute and with the word-processing, getting a nice clean document without the mistakes on it. And also being able to save it and make quick changes.” She also saw the potential for computer-assisted instruction even when using hardware with limited capabilities such as a “Commadore 64”.

In addition to word-processing, Teacher Two also used computers at university to compile statistics. Early in her teaching career, she availed of computers to develop a format for Individualized Education Programs, (I.E.P), used for special education students, that she has been using for about six years. “It [took] a lot more time at the beginning to set up,” she commented, “but to update I.E.P.s now, there’s nothing to it.” Both teachers appear to see Internet use as a further extension of the computer skills which they already have at their disposal. Teacher Two was looking forward to teaching at St. John’s Collegiate and making use of the Internet on a daily basis. “I was looking forward to it,” she explained, “but I’d always had positive experiences with computers -- so I was...not intimidated by them.”

Unrestricted Access

Both teachers were emphatic about the advantages of direct and unrestricted access to the Internet for teachers and students alike. Being able to go on-line when it is convenient is highly valued. Teacher One feels that it is especially important for students

to have ease of access. They can obtain more up-to-date information from a variety of sources -- instead of having to rely on a single text book -- enabling them to better undertake projects and to produce higher quality work. Both respondents suggested that the dearth of online computers in some schools is the chief barrier to access, "There are a lot of schools outside of the St. John's area without the [Internet] cable connection or the telephone connection and they have one STEM-Net computer [hook-up]. I mean, that's crazy" (Interview 1)!

Teacher Two expressed concern that the direct and unrestricted access not be abused. She fears that abuse of the system might result in restrictions being imposed, which would be disadvantageous, "I wouldn't want to have to be restricted....I know the difference in working in a school that has restrictions - it's not really fair." At another school where she worked previously, only certain teachers were granted Internet access due to the limited number of hours available at that school.

Today, neither of these teachers can imagine doing without the Internet now that they are accustomed to using it on a daily basis. Teacher One described her overwhelming feeling of being disconnected when Internet access was unavailable to her one day. And although Teacher Two has been using the Internet only since the beginning of the school year, she regards it as a valuable tool.

I feel a valuable resource would be lost [if I could no longer use the Internet], my teaching would not be as effective, my students would lose out on access to information, and my communication would be limited -- whether I'm trying to access [the principal] downstairs, or information from another university... Teaching is a very lonely profession and it's [the Internet] my way of trying to get in someone else's mind without

feeling that I'm taking up their time.

E-mail Use

Although these teachers have different backgrounds, and teach in very different subject areas, their Internet use and problems they encountered were quite similar. Both teachers make extensive use of the Internet as a means of communication. In her capacity as Science coordinator, Teacher One used e-mail to communicate with educators throughout the district regarding teacher training and to forward relevant resources. In her current position she uses the Eudora e-mail software both to send student attendance to the office and to converse with staff at her own and other schools.

I do a lot of communicating through e-mail -- that's something that I really, really value... I communicate with people more like that than I ever would with a telephone. It's really hard to get hold of teachers and other people, so I find that quite valuable.

Teacher Two also mentioned e-mail as one of the key reasons she uses the Internet. She regards e-mail as a convenient way to interact with teachers as well as friends out in the community, particularly because it is possible to communicate with others without disrupting them at work: "They can read their e-mail when they want and they can reply when they have time." In addition, use of e-mail at school ... "limits the amount of meetings and paperwork." Teacher Two also finds e-mail to be a very efficient mode of communication:

Today I e-mailed M.U.N. [Memorial University of Newfoundland] because I want to get into this program and I got a letter back from this

lady. I e-mailed her back requesting information immediately. You know, I didn't have to try to get to a phone, or try to get a line out of this school and then try to get hold of her. So she'll get hold of me when she has time with the information that I need.

Research via the Internet

Use of the Internet as a source for research is highly valued by both teachers.

Teacher One makes frequent use of the Internet at the beginning of a new unit to search for instructional resources to employ throughout the unit. At the end of a unit she looks for sites that students can access to practice and review work covered in the class. In addition, she accesses some sites during class time to demonstrate concepts that may be difficult to understand without the aid of visual cues. She mentioned the use of on-line simulations, in particular, as an area with great potential as a teaching tool for chemistry. She described one simulation which helped to demonstrate what happens to molecular concentrations over time.

There's not only the simulation showing the molecules moving around, but it shows a graph being made in real-time so that they [the students] can see how the concentration goes up or down over time right as the simulation is going on. That enhances their ability to analyze graphs which is something they don't get enough practice at, so that's a big plus of the simulations as well.

She did caution however, that many of the on-line simulations that she had found were of poor quality. The majority of sites must be enhanced before they can be of much use in the classroom. In fact, some computer programs currently available are more advanced than many of the on-line simulations.

Teacher Two also makes extensive use of the Internet for conducting research. She described several ways that she uses the Internet to search for information, from finding out about medical conditions of some of her students, to researching topics that her students are being taught in class. However, she indicated that her students have additional obstacles to overcome when required to do research. Many are not able to read well enough to comprehend the information they obtain.

Another thing too, they don't think they can do it. They get overwhelmed and...they're not used to the computer. They hate the computer, they're overwhelmed by it. They don't want to attempt it -- and if they know they can't read it in the first place -- what's the point?

She believes the value of having a computer with Internet access in her classroom is that it allows her to assist special needs students with research outside of the larger group setting. She is able to enhance their comprehension of materials accessed by walking them through and clarifying the information in a one on one setting.

She illustrated how she tackles the problem of students' reading comprehension by recounting an example of research done by one student about brain tumors. The learning resource centre had only one book containing limited information on the subject. As part of his research, the student was required to find a current magazine article on the topic as well. Unfortunately, the piece was written making extensive use of medical terminology and was beyond the student's grasp. Via the Internet, however, they were able to access sites such as the North American Tumor Association home-page as well as hospital and university sites that contain current information presented in a "user-

friendly” way, an important consideration for students with reading problems. Difficult terms that had been used in the journal article were simplified “on-line” and he was able to access a broader range of information. As a result, the student was able to complete the assignment at a much higher level than he would have without Internet access: “If we didn’t have Internet access there’s no way he would have had access to this [kind of] information” (Interview 2). It also greatly expands the number of resources available, and provides access to these resources without delays of any kind.

Teacher Two also accesses a wide range of data in the field of special education, such as information concerning Attention Deficit Disorder and Fine Motor Skill Development, in addition to curricular materials such as lesson plans, ideas regarding different teaching methods, specific topics such as Julius Caesar, Macbeth and sites containing grammar review and practice which she can use with her students. This teacher is pleased to be able to access up to date information at university sites.

I have a couple of sites under my name [book marked on my home-page] that I access quite frequently for Special Ed...I found a site this teacher in Cape Cod has developed -- and I can access -- you wouldn’t believe the amount of different lesson plans, different ideas, different ways of teaching something!

With restricted financial resources, Teacher Two also appreciates having access to Shareware via the Internet, giving her the opportunity to examine resources before spending her limited budget. Teacher One concurred: “With this [the Internet], you can do a lot of previewing, you can do a lot of searching before-hand and you can see what’s good, what’s not -- and it’s free!”

User Support

Teacher Two considers herself to be a “middle of the road” Internet user -- “I haven’t designed any curriculum....I hope to but this is my first year with it so, for me, I use it more as a research tool and more to [enhance] my own curriculum.” She admires other teachers on staff who have designed and are running their own programs on-line, and aspires to do something similar in the future. These teachers and others who frequently use the Internet are willing to share their knowledge and expertise, serving as teacher-mentors for those just starting out. Thus, the work environment at St. John’s Collegiate is conducive to delving further into computer and Internet (technology) use. Teacher Two acknowledged the value of this support; “If I have any trouble, I have at least twenty people on staff I can run to immediately and get my problem solved.” Such a positive atmosphere, cultivated by the school administration, is crucial to teachers continued Internet use. Brown (1990) affirms that change in a school culture -- from teachers working in isolation to a collaborative setting -- requires both the involvement of the entire staff and strong leadership, particularly from the principal.

It is essential that teachers have such a support system within the school. When teachers encounter a problem they need prompt assistance: “It encourages you to keep using it [the Internet] rather than hitting a road block -- getting turned off and getting frustrated” (Interview 2). Teacher One appreciated the assistance at her disposal when she first began to use the Internet. In her capacity as science coordinator at the board office, she had access to much more in-service than classroom teachers. “I could also go to

technical people at the board office,” she noted, “who could respond to any questions right away. Expertise was available and accessible.”

Internet-Related Frustrations

The Internet’s chief shortcoming, according to both teachers, is the amount of time required to complete Internet searches. Teacher One indicated that she sometimes gets frustrated because she does not have sufficient time to complete the desired task. “I find things hard,” she said, “because there is so much out there. I spend a lot of time at it so I don’t have as much spare personal time as I had before.” She finds, however, that she has become more efficient over time at conducting Internet searches.

You quickly learn to refine your searches -- what you’re looking for. Be very specific about what you’re looking for and also use connectors so that you get what you want in there -- in your search....I’ve also found to use a variety of search engines. If I don’t find [what I’m looking for] with one, then I use another one. Sometimes you get different things from different search engines.

Teacher Two also commented that information transfer is slower at certain times of day. She prefers to go on-line early in the morning or late in the evening. Lamenting the problem of time constraints, she said,

The only barrier I have with the Internet is I don’t have the time. If it was more organized it would be a great benefit for me -- I mean I could surf for hours and hours... I [find] some stuff but I’m sure there’s still stuff in there [online] that I haven’t been able to find.

In addition, the unorganized nature of online resources is a key problem;

I find too [that] sometimes the Internet is overwhelming because when you realize how much is out there that you have no idea is out there -- its

overwhelming in the sense -- are you doing a good job?...[and] you can spend hours trying to find more stuff (Interview 2).

Having a teacher-mentor to offer advice and guidance is very important when frustration sets in, according to Teacher Two, “[Mr. K.] has been really helpful to me because he surfs a lot”...and is eager to share his on-line discoveries. She appreciates being able to turn to other teachers for support when difficulties arise. However, she offered a frank comment on the “unconverted” members of the teaching staff who are more reluctant to make use of the Internet.

I feel the lack of knowledge of what is available and how to tap into it is a big problem. I don't think teachers know what a great tool it is and I think that the fear of the unknown or of not being able to access it -- and they think it's too much time or they don't have the time to do it. Once you learn of certain sites...you can tap right into them. And I think that comes from sharing amongst teachers -- saying look, I tried this today -- I found this today. And it would be like when you find a good book -- it's the same mentality. Like I said before, I really think you need to have mentors in the school.

From the students' perspective, teacher Two observed that a number of problems diminish the value of the Internet. Some students are accessing sites which are inappropriate, such as “chat lines”. Others may have difficulty distinguishing whether or not a site is valid. And again, she referred to the obstacle of students not having the reading comprehension skills to understand the sites they access.

Teacher Home-pages

Each teacher maintains a home-page, as do most of the teaching staff at St. John's Collegiate, which includes information regarding their courses and links to other relevant sites. Teacher One has home-page links for practice problems and sites, "where they [students] can get lots of good chemistry information if they are looking for it." Teacher Two maintains links on her home-page for sites pertaining to Special Education issues that she accesses quite frequently. This helps her to deal with problems pertinent to her subject area as they arise. She recounted an incident to illustrate this point. A parent she had been dealing with claimed her child was suffering from abstraction dementia. Teacher Two had never heard of the disorder and therefore, after consulting with the guidance councillor who was also unfamiliar with the ailment, she conducted an Internet search and quickly found that only Alzheimer patients suffer from this type of dementia. In short, the teacher commented, "I found out the parent was pulling my leg." She also uses curriculum-related sites that help her enhance students' learning. One particularly useful site, developed by a Cape Cod teacher, is extremely well organized and contains a wealth of educational information of interest to teachers.

Conclusions

It is clear that, despite having differing backgrounds regarding the Internet, both teachers are deriving significant benefit from its use. As was suggested in the literature, it appears that having previous experience with computers fosters a positive attitude towards Internet use and makes it less intimidating. Once both teachers began using the Internet, they were motivated to continue because they were able to access relevant, current information for their own professional use and to locate sites for the benefit of their students. In their opinion, they were able to retrieve information that would have been otherwise unavailable to them, considering the limited budgets provided in their school for the acquisition of new resources in various subject areas. This view is supported by other surveys pertaining to Internet use (Logan, 1998 and Ravitz, 1998). In addition, they were also able to preview materials via the Internet which enabled them to determine where their budgets could best be spent. Through continued Internet use, they have become more proficient at conducting Internet searches and also “bookmark” sites which are particularly useful to allow rapid access, thus creating a continuing cycle of ongoing Internet use. Both teachers recognize that use of the Internet expands their own and their students’ knowledge. In essence, they are typical Internet users as identified in other studies on Internet use among teachers (Ravitz, 1998 and Becker, 1998).

The chief reason why this school has had such success with staff availing of the Internet in their teaching is that teachers who are familiar with the Internet are willing to serve as mentors for colleagues who are just learning to avail of the Internet. This concurs

with Logan's (1998) findings regarding collaboration among colleagues and Egnatoff's (1996) assertion that the most effective training and support often comes from teachers themselves.

In this manner, the school environment fosters the use of new technologies, and the school administration ensures that teachers have in-service in this area to continue to improve their skills. Teacher-mentors who can share their knowledge have an important role to play in helping to overcome teachers reluctance to go online. As suggested by Egnatoff (1996), these mentors must be readily available (i.e. in the school or perhaps online) for those teachers who have taken the plunge into the Internet.

Similarly, learning resource teachers must be the mentors for teachers who wish to implement technology use in their teaching, and offer teacher training as the need arises. The teachers and school represented in this case study exceed most schools in the province in terms of both technology and Internet use in the classroom. Therefore, they serve as a valuable model for how to proceed in this regard. They offer relevant insight into how the Internet can be best utilized, and highlight problems which may impede its optimum use. All learning resource teachers must be prepared to meet this challenge.

CHAPTER THREE

Critical Reflection

Introduction

The school where I currently teach has no learning resource teacher and the infrequently used library cannot be considered a learning resource centre. The library is not automated and, due to financial constraints, few new materials other than magazines have been acquired for many years. Even the vertical files have been neglected in recent years. The deficiencies can be attributed, at least in part, to the inadequate allocation of time for the teacher assigned to the library - only ten periods in a fourteen day schedule. In short, students and teachers have limited access to resources and must fend for themselves when it comes to locating the few resources that are available. And there are increasingly larger gaps in the collection because of the difficulty in monitoring the movement of resources into and out of the library. Because of this void in our school environment, I had little experience with a functioning learning resource centre, how it should be used by students and staff, and what duties should be performed by a learning resource teacher beyond what I had read in the literature.

A fully functioning resource centre can contribute to an enhanced school environment and facilitate the implementation of resource-based learning. According to the *Competencies for Teacher-librarians*, research increasingly shows that, "a qualified teacher-librarian and library resource centre have a positive impact on school culture and student achievement" (ATCLA & CSLA, 1996). Considering my lack of exposure to the

operation of an up-to-date learning resource centre, I determined that the internship route offered by the graduate studies program would be the best choice for me. It would permit me to observe and participate in the operation of a learning resource centre and would complement the theoretical work I had completed in my graduate courses.

During my internship I wanted to develop skills that would assist me in becoming an effective learning resource teacher. I was keen to learn the roles and responsibilities of the learning resource teachers (at St. John's Collegiate two teachers share a single position), and carry out some of their duties. This was challenging because the learning resource teachers' duties were broad. Teacher training and professional development, administration of the learning resource centre, advocacy of their roles as learning resource teachers, participation in numerous research projects, development of resources (both online and hard copy) for teacher and student use, cooperative program planning and team teaching, assisting students access to resources, and teacher-mentoring for other staff members can all be counted among the duties of the learning resource teachers at St. John's Collegiate. I was also interested in determining how teachers and students made use of the learning resource centre, either individually or as class groups. This was done primarily through observation and informal inquiry.

Additionally, as part of my internship, I wanted to develop my skills and become familiar with a variety of productivity and communication software. Before beginning my internship, I had primarily used WordPerfect 6.1, although I had worked in a Windows environment using programs such as H.T.M.L. and Corel Draw to complete

assigned work for some graduate courses. I therefore interspersed use of a wide range of software, including H.T.M.L., Powerpoint, Microsoft Word, Paintshop Pro, Eudora and Winschool, with my other internship activities, a very time-consuming yet practical endeavor. Finally, I also pursued the case study regarding the Internet use of two staff members, the research component of my internship.

This section of the report is a personal reflection of my experiences and observations of the roles of the learning resource teachers during my internship and focuses on the following areas: the general administration of the resource centre, staff and student use of the resource centre and the duties and responsibilities of the resource teachers.

Roles of the Learning Resource Teacher

General Administration of the Resource Centre

A typical day in the resource centre at St. John's Collegiate is not dull. The centre opens at 8:15 and is often filled with students and some teachers shortly thereafter. Students and teachers have access to the centre throughout the day until closing at 4:00 - 4:30, unless a class is being held there (both teachers teach two to three sessions of Language 2101 - the research paper course - each semester), and one or both resource teachers are generally available during that time. The resource centre has an extensive Newfoundland collection, a reference section consisting primarily of encyclopedias, an up-to-date vertical file, fiction and general non-fiction, a small collection of CD ROMs, a comprehensive magazine collection, and approximately

twenty-five computers with direct and unrestricted Internet access. Students may search for books via the automated Columbia system, and books are signed out and returned through this system. One of the duties I assumed during my internship was to add to this automated collection. Because the learning resource teachers at St. John's Collegiate are involved with so many on-going projects, this task was often overlooked. There are no parent or student volunteers to assist with the clerical duties of the resource teachers.

One of the most popular features of the resource centre is the Internet access. The centre and the adjoining computer lab were often filled to capacity during students' free time throughout the day. In fact, competition was so keen for computer access during the lunch break that the resource teachers had to implement a sign-up system during my internship. Students undertaking research for completion of a course were given priority over students who simply wished to "surf the web", a favorite activity among many regular visitors to the resource centre. An Acceptable Use Policy, addressed at student use of the Internet, was posted in a prominent place. Although students were not required to sign any document indicating awareness and acceptance of the policy, they were expected to comply with the guidelines as stipulated in the policy. Students who chose to ignore it were prohibited from using the computers for a specified period of time, depending upon the breach of policy. Among the most common infractions - resulting in the loss of computer use for a period of one to two weeks - were downloading information onto the hard drive and accessing inappropriate sites, such as chat lines.

Students were permitted to print from Internet and other computer sources at a

cost of ten cents a page, and the resource teachers carefully monitored printing to prevent abuse of the system. A coin-operated photocopy machine was also available for students to copy reference materials which could not be removed from the resource centre – again, at ten cents a page.

Teachers wishing to bring a class to the resource centre to conduct research could determine when the learning resource teachers and space were available by checking a sign-in book. They were encouraged to provide specific objectives, frequently determined in consultation with the learning resource teachers, for students who were conducting research online. According to Garland (1995, as cited in Gibson, 1997) student satisfaction with the research process is higher when they have clearly stated goals, know how they are to be evaluated, and see a connection between the research topic and the course content. In fact, research shows that students experience more success when they can access some sites from which to initiate their exploration, provided by the teacher and librarian who act as facilitators (Gibson, 1997). Otherwise, student searches may lack focus, resulting in time wasted due to the overabundance of information available online.

The learning resource teachers were also responsible for the movement of audio-visual equipment throughout the school, such as stereo systems, overhead projectors and videocassette recorders – although most of these items were stored in central locations on each floor of the school rather than in the resource centre. Teachers signed out the equipment in the resource centre, enabling it to be tracked no matter where it was in the

building. Of course, this method required the cooperation of all staff members, which seemed to be the case at St. John's Collegiate.

Staff and Student Use of the Resource Centre

As noted, students were frequent visitors to the resource centre, attracted by the Internet access, although all of the resources were utilized on a regular basis. Some students required access to "Encarta", a CD ROM encyclopedia, while many used the word processing software available on all the computers. Many teachers preferred typed copies of assignments and, because of the large numbers of computers in the school, students were able to comply even if they did not have a computer at home.

The school's technology plan advocates incorporating use of technology across the curriculum, and this is being accomplished to varying degrees. The Language 2101 course, taught by the learning resource teachers, is an example of a course which has successfully integrated the use of technology both in researching and presenting information. The course outline and evaluation policy are online, as are links to other relevant sites, such as on-line encyclopedias and newspapers. Students can also find guidelines for how to complete footnote and bibliography citations. Students are expected to complete all of their work in the resource centre, and save it to a disk which must be left there at the end of each class. This serves two purposes: it keeps students on task during class time and it ensures that work submitted is their own, a problem which many language teachers encounter. Any work that cannot be completed during class

time may be done at another time, since the centre is accessible throughout most of the day.

As part of the course evaluation, students are expected to complete research using the Internet, other electronic resources such as CD ROM encyclopedias, and traditional sources such as books and magazines. They are also required to produce at least one report using Microsoft Powerpoint to present their research to others. Any assignments completed for the course can be submitted on disk (a hard copy is not required). By the end of the course, students have the skills to access and make use of the wide range of resources and technology currently available.

Also included on the learning resource centre's web page is a brief questionnaire to assist students in the evaluation of the "validity" of Internet sources. This is an important process considering the increasingly wide use of Internet resources, and the tendency of many students to accept on-line information at face value. Fitzgerald (1998) outlines some critical thinking skills necessary for evaluating online information. She states that Internet users must be aware of and scan for indications of misinformation and maintain a healthy skepticism of all Internet material. Students and others can guard against Internet misinformation by adopting the following procedures: reading and browsing widely in the content area; scanning sites for footnotes, references, bibliographies, active verbs, statistics and specific provable details which help to mark facts as opposed to opinion; and performing multiple searches with various search engines to confirm or contradict information (Fitzgerald, 1998 - see Fitzgerald, 1997 for

further discussion of misinformation triggers).

During exams the resource centre was used by some students as a study hall while others, when not studying or writing exams, completed end of term assignments. This also provided teachers with an opportune time to visit the teacher resource area, where four computers are reserved strictly for teacher use. Here they were able to conduct searches, learn how to use new software, or even to become familiar with use of a computer. These tasks could be accomplished in a variety of ways. Teachers could refer to booklets containing step by step guidelines on how to use a variety of programs such as sending and receiving e-mail via Eudora, or on more particular skills such as how to create columns or type up a test using Microsoft Word (the word processing software used by the school). These booklets were created by the resource teachers to permit staff members to work independently and learn at their own pace.

Other teachers preferred to have someone work with them in order to explain the step by step processes required to accomplish various tasks. The resource teachers referred to this as “just in time” training, meaning that as teachers needed it, the training would be available to them. The resource teachers were generally available when teachers had free time, either before school, during preparation periods, or during exam time. At other times, specific training sessions would be scheduled and interested teachers could attend if the time was convenient (see McKenzie, 1998 for suggestions on how to implement “just-in-time” support). Helping teachers to improve their teaching by keeping up with changes to the delivery of information and making use of new and

improving technologies to assist in their teaching is an important aspect of the resource teacher's role.

However, this is a difficult transition for many teachers. Those with little or no computer training and experience may be intimidated by the thought of using computers, and, for many, frustration occurs very early in the learning process. Others just do not see the need to try something new when their current teaching practices are serving students well. During my internship, the importance of available resource teacher support was clearly illustrated one day when both resource teachers were occupied with teaching duties. Two teachers interested in learning to use Microsoft Word came into the teacher resource area and sat at two of the computers. They quickly became frustrated, however, as they encountered one difficulty after another. In no time, they gave up their efforts and left -- one wondering aloud as they departed where he had left his typewriter. Evidently, they could have used some help.

"Just in time" training works because it meets teachers' needs; however, flexible scheduling for resource teachers is imperative to ensure that training is available when teachers require it. St. John's Collegiate is fortunate to have at least one resource teacher available during most of the day, one of the advantages of having two teachers share the position. And van Deusen (1998) emphasizes the value of flexible scheduling to allow consultation between teachers and teacher-librarians. Students benefit from the process, as their teachers become better equipped to fulfil their educational needs. Flexible scheduling also allows class groups to access the resource centre when the need arises,

i.e. when integrating use of resources with classroom instruction.

Duties and responsibilities of the Learning Resource Teachers

As previously noted, the resource teachers' duties and responsibilities were numerous and varied. In addition to responsibility for the general administration of the resource centre, and the movement and supervision of students, class groups and teachers into and out of the centre, they were also involved in several ongoing research projects at the school. Brown and Sheppard (1998) emphasize the necessity for teacher-librarians to take on a leadership role in the areas of staff development and school improvement. The learning resource teachers at St. John's Collegiate fully embraced this responsibility. One project in which they participated was an action research project undertaken by two Memorial University of Newfoundland (M.U.N.) professors, Brown and Sheppard, regarding changes that St. John's Collegiate has undergone in recent years. The research focused on how these changes have been implemented and the resulting effects on students and teachers. A group of staff members volunteered to interview other staff members concerning their views about changes occurring at the school. The resource teachers were among those conducting the interviews.

Another research project, conducted by Dr. Brown of Memorial University of Newfoundland, focused on the implementation of multimedia teaching strategies at the school. The project provided a basic multimedia Web page template for teachers to follow, with examples and tips for input of text, audio and video. Support people

provided assistance to teachers, as required. The process was then to be evaluated to determine the degree of success teachers experienced when using the template.

Although this research was in the preliminary stages while I was at the school, the learning resource teachers were the key participants in the study.

Some of the ongoing research projects being conducted at St. John's Collegiate were initiated at the school level. One of these, a Class Connect project with another high school having a similar Internet connection, involved curriculum sharing among teachers and classes at the two schools. The theory behind this project was that having a link between the two schools would improve educational outcomes among the students who participated. A number of teacher-participants volunteered from several curricular areas. Among these was a chemistry teacher working on a project to develop labs for student use, there being no core labs for the courses (2202 and 3202). The goal was to decrease the teacher workload while enhancing the current resources with Internet sites and providing online review sheets and answers for students. There were also "connections" among the math teachers, one of which involved conducting a student survey for a statistics course. However, the St. John's Collegiate teacher was having difficulty gaining access to students at the other school, and therefore, was unable to obtain the information required to compile the necessary statistics to complete the project.

A number of ongoing projects involved classes of French immersion students, however most of the sharing was one-sided, with the bulk of the information coming

from St. John's Collegiate classes. Apparently the contact person at the other school felt that technology use was too difficult to implement, so his students could be involved only in a limited way by accessing the St. John's Collegiate sites and providing critiques through e-mail.

The biology and chemistry teachers found similar difficulties with their counterparts at the other school. While they had well-developed course sites, it seemed that the same could not be said of the corresponding courses at the Class Connect school. It appears that St. John's Collegiate was much further ahead with its teachers' "online offerings", however, the participants were willing to share the resources they and their students had developed despite the lack of reciprocity. This positive attitude seemed quite prevalent among the staff at St. John's Collegiate, and surely contributed to the success of the ongoing implementation of technology across the curriculum.

The learning resource and technology teachers were also the lead teachers responsible for maintaining contact with Newtel, the school's major partner and Internet provider -- keeping them up to date on how the technology was being utilized. Meetings were held periodically throughout the year for this purpose. Undoubtedly, Newtel was interested to know that its investment was being managed properly and teacher contacts were able to provide that information, being among those chiefly involved in the delivery of the service.

In recent years, professional development at St. John's Collegiate has focused on the acquisition of skills necessary for the implementation of technology use among

teachers and here again, the resource teachers have an integral role to play. They form the core of the professional development team that interacts with staff members to solicit topics of potential interest for professional development days. The topics are then organized on this basis, and are generally delivered making use of in-school expertise.

The in-service day held for staff members during my internship, for example, was developed based on suggestions collected from evaluation sheets completed by teachers at the previous in-service and it also continued with initiatives begun in previous sessions. The topic for the day was "Vision and technology." The agenda consisted of both large and small group activities, including training seminars which focused on Internet use, lead by several teachers on staff. Brown (1993) notes that when teachers have the opportunity to learn from one another as part of the process of staff development, a collaborative culture is fostered which is crucial to implementing change. At this professional development day teachers were given the opportunity to make suggestions for future in-service, and to evaluate the sessions at the end of the day. Haycock (1999) confirms the importance of teacher feedback in this process: "Evaluation of the session itself and how well it met the need originally identified provides guidance for future workshops" (p.62).

The Vision 2000 initiative is yet another project in which the resource teachers are involved (see Chapter 2 for an in-depth description). As the word vision implies, it is essential that schools establish clear goals for technology use to avoid needless expenditures, and also to ensure that the greatest number of people will benefit, in light

of the financial constraints under which schools are currently operating. One of the goals of "Vision 2000" was to see St. John's Collegiate serve as a model school, and -- considering that its enthusiastic staff have embraced the initiative by forming partnerships with various agencies to supply the school with the latest in computer and communications technology -- it appears to deserve this designation. And the resource teachers were instrumental at every step along the way.

This project, and the role of the resource teachers in its implementation, is particularly significant when one considers that, across Canada, new initiatives such as technology plans and the development of core curriculums have often resulted in a diminishing of the role of teacher-librarians. Doiron (1998) in a recent study of school library resource policies across Canada indicates that, despite the lack of change in school library resource policies, there has been a deterioration of staffing in school libraries. As part of this study, conducted from October 1996 to March 1997, Doiron discovered that current technology documents do not refer to the resource centre as integral to the implementation of technology across the curriculum. He concluded, however, that despite the lack of a defined role for teacher-librarians, they

...must focus on the fact that teachers cannot do this alone; they need someone knowledgeable in resources, technologies and information literacy to work with them to develop the curriculum...if the vision of technology as central to learning is to be realized, curriculum development has to move beyond a closed and hierarchial view to become a true collaboration between students, teachers, and teacher-librarians. (p. 12)

Thus, the collaborative role of the teacher-librarian is inherent to the process of technology implementation.

Collaboration between teachers and the teacher-librarian is also an essential element of cooperative program planning. I was fortunate to have been involved with this process throughout my internship. Cooperative planning, as outlined by Page (1998) entails: determining specific learning objectives based on students' abilities, interests, and needs; selecting and organizing the content to be taught; choosing the instructional methods to be employed; deciding which learning activities are to be developed; and finally, deciding how to evaluate both student growth and learning, as well as the effectiveness of the unit.

During my internship, one member of the teaching staff in particular was eager to work in collaboration with the teacher-librarians to develop a plan which would enable his students to avail of technology to enhance their learning. His students were involved in several ongoing projects. One of his classes had created home-pages developed around themes evolving from a novel they had studied. He wished to pursue a similar project with another group, however he had a number of concerns about the process, arising from the earlier initiative. These concerns centred around time constraints and the difficulties that some students encountered when working in an unfamiliar medium. All of the concerns were addressed during the initial planning session, and a time-line as well as outcomes and evaluation were determined (see Appendix B). After further consultation with the teacher, we decided that it would be useful for the students to have an online guide to follow indicating the key elements to be included in their home-pages (see Appendix C). This guide was developed and added to the on-line information

already provided for the course. Although I was not able to witness the completion of this project before my internship ended, it provided me with valuable insight into the process of cooperative program planning.

Conclusion

My internship experiences at St. John's Collegiate were rewarding for a variety of reasons. Firstly, it allowed me to see the impact a vibrant learning resource centre can have on a school environment. The resource centre at St. John's Collegiate is truly a beehive of activity, utilized by staff and students alike. I was also able to observe the dynamic role that learning resource teachers can and should play within a school. At this school, the resource teachers are involved in ongoing projects and research, and are actively sought out by others for assistance and advice, a testament of their value to the school. Finally, I was able to appreciate that the implementation of resources cannot be done in isolation by resource teachers, but requires the involvement of an entire staff committed to the process. Therefore, I feel fortunate to have been involved at this school, if only for a short time.

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Appendix A

Assessing the Effect on High School Teachers of Direct and Unrestricted Access to the Internet: A Case Study of St. John's Collegiate, St. John's, Newfoundland.

Purpose of the study:

- to investigate the effect of direct and unrestricted access to the Internet on a group of high school teachers
- to explore barriers encountered when using the Internet
- to determine factors that influence continued use of the Internet
- to identify transitions experienced from using the Internet

Research questions:

1. What factors contribute to teachers' use or lack of use of their school's Internet connection?
2. What support services are needed to help teachers use the Internet to pursue their educational or professional goals?
3. What compelling pedagogical reasons are there for using the Internet?
4. What role or behavioral changes do teachers experience when trying to incorporate networking activities into their classes?
5. What motivates teachers to continue using their Internet connection?
6. What is a typical teacher's user profile?
7. In what way does an Internet connection affect teachers' views on education?
8. What special problems or barriers do teachers encounter by virtue of having an Internet connection?

Setting:

- an urban 10 - 12 high school which has a local area network, 1 computer in every classroom, 3 computer labs - each with a minimum of 25 computers, a multimedia lab, and direct Internet access (64 k).

Procedure:

- participants are requested to maintain a log book (journal) of their Internet-related activities, i.e.: personal reflections or experiences related to the study
- share comments, questions, problems, etc. with the research team via e-mail and monthly meetings
- use the Internet daily

Data collection methods:

- PRIMARY: 3 different interview methods will be used 1) informal interviews - 2 times per month, average length - 1 hour 2) group meetings using the general guided interview approach i.e.: a list of relevant topics from participants' responses from various (informal) interviews, and 3) standardized open-ended interview, administered every 4 - 6 weeks, average length - 1 hour.
- SECONDARY: personal reports, log books, and messages generated by participants.

Formal interview questions:

1. What motivates you to continue using the Internet?
2. Tell me about any new teaching ideas or information you have received from using the Internet.
3. What effect has using the Internet had on your view of education?
4. Describe your reaction to losing use of the Internet.
5. Identify the single most important factor that will determine whether you will continue to use the Internet.

6. Describe your pre-Internet attitude about education and computers.
7. What changes in this attitude have you perceived as a result of using the Internet?

Prior to the study, participating teachers receive teacher-participation consent forms and the initial set of research questions. Several days before the study begins, an orientation meeting will be held to resolve any questions and concerns.

Time-line

1. Orientation meeting - 12:00, February 3 - Consent forms signed
2. Formal Interview
3. Informal Interview
4. Group Meeting - no later than March 6

Appendix B

Cooperative program planning unit Term 2 - Français 1202

Students will be studying the novel *Sans Bon Sang* during term 2. Once the novel has been completed (approximately 4 - 5 weeks), students will work on individual home-pages based on an aspect of the novel. The process to be used is as follows:

January - end of February - Before beginning the novel, course teacher will give students a list of topics related to the novel. Upon completion of the novel, students must select one of these topics as the focus for their home-page. No more than two (2) students may choose a topic, and the project must be completed individually. Once a topic has been chosen, students must look for five (5) related quotes from the novel to be used on their home-page.

March - Using a home-page template (provided by the course instructor), students will write a five (5) paragraph essay which will ultimately provide the text of their home-page and its' links. Each paragraph will form the basis of a separate page, and must also include a supporting quote (including page number), an image (which may be scanned or created using a graphics program), and an Internet link. Students with a great deal of experience creating home-pages may also include a sound video. Each page must be linked back to each of the other pages.

- By the third week in March, students will have their essays on disk and be ready for the correction process in the multimedia lab. (1 - 2 days) Students will edit (correct) each others work and the final draft will be submitted to the instructor for correction and grading. Additionally, students will search for their Internet links and images.

- During the last week of March, students will create a story-board on paper showing their page layout, including where links and images will appear.

Unit objectives:

1. Each page must reflect a topic from the novel and include: (10%)
 - a paragraph
 - a quote from the novel, including page number
 - an image
 - an Internet link
2. Students must validate/evaluate their external links (using a questionnaire provided) (5%)
3. Students must demonstrate good use of vocabulary and grammar (5%)
4. Students must use each other's pages as a study guide/resource (5%)

NB: the home-page project will comprise 25% of the total mark for the novel study.

Introduction

1. attirer l'attention
 2. thèse de la dissertation
 3. idée principale du premier paragraphe
 4. idée principale du deuxième paragraphe
 5. idée principale du troisième paragraphe
 6. mots de transition
 7. grammaire
 8. variété de vocabulaire
-



Premier paragraphe

1. répétition de l'idée principale du paragraphe qui fait référence au thème
 2. arguments (comparaison/exemple)
 3. au moins une citation obligatoire du roman
 4. chiffres; référence à d'autres oeuvres étudiées
 5. mots de transition
 6. une image
 7. un lien Internet
-



Deuxième paragraphe

1. répétition de l'idée principale du paragraphe qui fait référence au thèse
 2. arguments (comparaison/exemple)
 3. au moins une citation obligatoire du roman
 4. chiffres; référence à d'autres oeuvres étudiées
 5. mots de transition
 6. une image
 7. un lien Internet
-



Troisième paragraphe

1. répétition de l'idée principale du paragraphe qui fait référence au thèse
 2. arguments (comparaison/exemple)
 3. au moins une citation obligatoire du roman
 4. chiffres; référence à d'autres oeuvres étudiées
 5. mots de transition
 6. une image
 7. un lien Internet
-



Conclusion

1. bonne transition du troisième paragraphe
 2. répétition de la thèse de la dissertation
 3. résumé des idées principales
 4. mots de transition
 5. dernière phrase qui laisse une impression impérissable avec le lecteur
 6. grammaire
 7. variété de vocabulaire
-





