

# ERAC Video Streaming Pilot

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## Summary Report

June 24, 2005



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## Executive Summary

In early 2004, ERAC became aware of an increasing number of member districts that were interested in learning more about video streaming technology. In response to that interest, ERAC's Video Working Team arranged a video streaming pilot of three leading services, so that schools and school districts could try out the technology firsthand.

Streamed video refers to the transfer of digitized video content over the Internet to a user's computer. The video information is temporarily stored on the computer's memory while it is playing; when the video ends, there is no data left on the machine. Videos can be streamed and shown in real time or downloaded to a local server overnight and watched later. Teachers or students can search a video streaming service's library collection seeking videos, video clips and images to use in multimedia lessons or presentations.

ERAC arranged a pilot of three services: United Learning's unitedstreaming, Magic Lantern's InSite and Classroom Video's Media-on-Demand or MonD. All ERAC member districts were offered the opportunity to participate; 14 chose to be part of the first phase of the pilot. Participating sites were given full access to one or two video streaming services from approximately March 1 to December 31, 2005. Because of continued interest, ERAC offered a second phase of the pilot, ending June 30, 2005. In total, 16 school districts participated in the two phases of the pilot.

The goal of the pilot was to examine the services' quality and content, instructional relevance, appropriateness and ease of use, cost effectiveness and educational value. It also sought to compare the educational and functional differences of streaming versus server-based models, streaming versus VHS tapes and the different streaming services themselves.

After the first phase of the pilot ended, it became clear that InSite was not popular with the pilot sites, which commented that vendor support was not forthcoming. Consequently, only unitedstreaming and MonD were included in the second phase.

Every participant was expected to complete an online evaluation survey. The results of the survey illustrated participants' perceptions of the strengths and weaknesses of both video streaming in general, and the streaming companies included in the pilot in particular.

Overall, teachers expressed great enthusiasm for video streaming. The vast majority gave high marks to video streaming as being suitable for classroom use and online education. The most common approach was for the teacher to use it before the full class. Teachers highly valued the on-demand access to videos and found them easy to use. They liked the fact that video streaming eliminated copyright problems and they appreciated the ability

to pull out sections of material. They said video streaming supports different learning styles and self-directed learning.

Teachers also reported that the quality of videos was generally good and displayed concepts well. In comparing streaming with VHS videos or DVDs, teachers said streaming offered easy access and flexibility and avoids the need to reserve videos. They cited student use of clips in projects and said the service was good for online learning and for individual student activities. Teachers found that streaming led to moderate and even dramatic increases in student engagement and some improvement in student achievement.

Teachers also reported on the challenges associated with video streaming. Choices were limited by the numbers of videos on the services' libraries. For example, unitedstreaming had a far larger library, compared with the two other services. Australian MonD's videos featured a lot of Australian accents, which was problematic for some students. Teachers also reported that there was not a good fit between the video selections in any of the services, and BC's curriculum. As well, teachers noted an American bias in many videos, with a corresponding lack of Canadian content.

In terms of image and sound quality, pilot sites reported that pixilation, disconnection, pauses and lags were problems that often occurred during the streaming process. They said that, during projections, image quality was sometimes poor and they noted that low resolution was an issue. Some noted that sound quality was poor in some videos.

The teachers drew a clear distinction between the two services that wound up being piloted in the vast majority of the sites. They said that while MonD was not as popular for its video library, it was a great tool for teachers and students to use to create their own videos. Most expressed a preference for unitedstreaming's video library.

Teachers also noted that video streaming was affected by the infrastructure in place in schools to support it. Since different schools have different levels of network performance, and because so many factors affect video streaming ---such as the number and capacity of computers being used at the same time-- the quality of the service varied between schools.

Most teachers expressed their support for video streaming. They said they found it to be a very effective teaching tool that appealed to both teachers and students. They see value in it for teachers and for students and expressed their desire to continue with the service, even after the pilot ended.

ERAC was pleased to run the pilot. The two services involved in it have offered modest discounts to participating schools that want to continue using video streaming. ERAC plans to revisit the video streaming issue this fall and will continue to work with school districts that are using video streaming.

## Introduction

Streaming video refers to the transfer of digitized video content over the Internet to a user's computer where the video information is temporarily stored in a memory buffer while it is playing. At the end of playing, there is no data left on the machine. Videos can be streamed and shown in real time. It can also be downloaded to a local server overnight, when bandwidth usage is low, and then later streamed from there to the classroom, on demand. Teachers and students can search a video library via a learning outcome, key competency, keyword, subject area, grade, producer, new releases, or all available titles.

Programs are usually divided into short topical segments, or clips that can be accessed instantly. Instructors can incorporate hyperlinks to these clips or embed them directly into multimedia lessons/presentations and student learning environments. Students can use clips in the same manner, to "illustrate" their own presentations for their classmates. A digital video projector or an AVerKey (or similar) equipped computer and large screen television are required for group video presentation.

Streamed video is ideal for project and inquiry-based learning, as well as distributed learning applications.

## Background

In early 2004, due to increasing interest among member districts in video streaming technology, ERAC's Video Working Team arranged pilots of three leading services: United Learning's Unitedstreaming, Magic Lantern's InSite, and later, Classroom Video's Media-on-Demand, or MonD.

Participating sites were given full access to one or both video streaming services from approximately March 1<sup>st</sup> to December 31<sup>st</sup>, 2004.

Servers for InSite and Unitedstreaming, along with a MonD content hard drive, were installed in Central Okanagan School District. An InSite server and a MonD content hard drive were installed in Prince George. MonD content hard drives were also installed in Central Okanagan, Cariboo-Chilcotin, Chilliwack, Prince George, and Okanagan-Skaha districts. The remaining districts were served by a Unitedstreaming server and an InSite server located in Victoria.

Final decisions on which of the services individual sites would pilot were made in February, in consultation with districts and the vendors. Wherever possible and budget permitted it, sites were given the option of piloting both services.

Training sessions for participants were held in Kelowna and Vancouver. The two vendors each provided a morning and an afternoon session on the same day, to accommodate the teachers' schedules. Feedback from the training sessions indicated that the unitedstreaming sessions were superior. When MonD joined the pilot, Classroom Video provided additional training for those participants, as well.

Due to delays in getting the Victoria servers set up with the content and a lack of technical readiness on the part of several districts, the pilot did not really get underway until May. This was too late in the school year for participants to do much more than familiarize themselves with the service and the videos in the library. With few exceptions, actual use of the video streaming service with students did not begin until the following September or even October.

In early December, ERAC posted a web-based evaluation survey for participants to complete. The survey focused on the technical aspects of the services and the video content. Only one InSite user completed the survey. The MonD users had only just gotten started in the pilot and so they were unable to provide much feedback. A significant number of unitedstreaming users completed the survey.

At the end of the initial pilot period, participants were invited to apply for an extension until the end of the school year, conditional upon having filled out the first evaluation survey. Due to InSite's dismal showing in Phase 1 and a lack of involvement and

response by the vendor, ERAC decided that only the unitedstreaming and MonD services would be extended into Phase 2.

The final evaluation survey was posted in May. This survey focused more on the effectiveness of the services as learning resources and the ways that they were used in the classroom.

## **Goals**

To evaluate:

1. Quality of service and content
2. Instructional relevance
3. Appropriateness and ease of use
4. Cost effectiveness and educational value
5. Comparison (educational and functional) of streaming vs. server-based
6. Comparison (educational and functional) of several services
7. Comparison (educational and functional) of streaming vs. VHS tape

## **Participants**

In early 2004, ERAC sent an invitation to participate in a video streaming pilot to every ERAC Video Contact. Fourteen districts applied: Southeast Kootenay, Central Okanagan, Cariboo-Chilcotin, Abbotsford, Surrey, Vancouver, Coquitlam, North Vancouver, Prince George, Victoria, Saanich, Kamloops-Thompson, North Okanagan-Shuswap, and Nechako Lakes.

See **Appendix 1** for a detailed listing of all pilot schools and the number of participating teachers at each.

## **Participant Responsibilities**

Each participant was expected to complete an online evaluation survey (see **Appendix 3**) in June 2004, and at the conclusion of the pilot in December 2004. Those participants that received an extension to their pilot in January were expected to complete an evaluation survey in May.

## Timelines

### Phase 1

February 16 <sup>th</sup> – 20 <sup>th</sup>	Training Sessions
February 23 <sup>rd</sup> – March 1 <sup>st</sup>	Server set-up
March 1 <sup>st</sup> – Dec 31 <sup>st</sup>	Pilot Project
December 13 <sup>th</sup> – 17 <sup>th</sup>	Evaluation

### Phase 2

January 3 <sup>rd</sup> , 2005 – May 13 <sup>th</sup>	Pilot Project
May 17 <sup>th</sup> – June 3 <sup>rd</sup>	Evaluation

## Budget

### PHASE 1

Unitedstreaming training		\$6,000.00	
InSite training		\$3,000.00	
MonD training		\$1,500.00	
MonD training day catering		\$200.00	
Unitedstreaming Content HDD (2)		\$6,000.00	
Unitedstreaming Subscriptions	\$550 x 25 sites	\$13,750.00	
InSite Content HDD and Subscriptions		\$10,000.00	
MonD Content HDD (4)		\$6,500.00	
Victoria server		\$9,841.00	
Victoria server maintenance	9 months x \$900 per	\$8,100.00	(Ministry-funded)
Kelowna Unitedstreaming server		\$5,344.53	(ERAC's contribution)
Kelowna MonD server		\$639.50	(ERAC's contribution)
Prince George MonD server		\$597.36	(ERAC's contribution)
Abbotsford MonD server		\$600.00	(ERAC's contribution)
Williams Lake MonD server		\$1,289.57	(ERAC's contribution)
<b>Sub-total:</b>		<b>\$73,361.96</b>	



## PHASE 2

Unitedstreaming extensions	\$425 x 12 sites	\$5,100.00	
Unitedstreaming new sites	\$600 x 2 sites	\$1,200.00	
MonD extensions	\$600 x 4 sites	\$2,400.00	
MonD additional training	\$750	\$750.00	
Victoria server maintenance	5 months x \$900	\$4,500.00	(Ministry funded)
	<b>Sub-total:</b>	<b>\$13,950.00</b>	

## Usage Summary

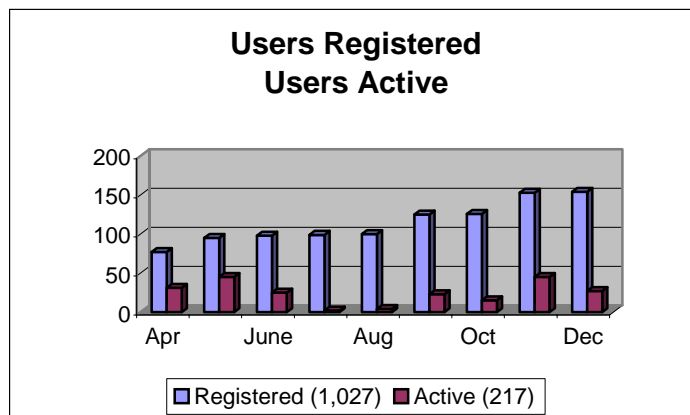
### Phase 1

Only the unitedstreaming service tracked usage levels and reported these back to the Ministry of Education and ERAC. MonD is locally served, so the supplier, Classroom Video, could not track usage. Magic Lantern did not provide any usage data for InSite during Phase 1.

In Phase 1, many participants initially used the service heavily as they explored the videos available to them in the online library and downloaded the ones they wanted. These peak periods of activity were often followed by a lull over several months before usage would begin to pick up again. Of course since the programs were frequently downloaded and streamed locally, usage was occurring that could not be tracked. It should be noted that the usage in the reports in Appendix 2 therefore, represent teacher activity and do not account for, or reflect, actual classroom usage involving students, except where students were given accounts to access the service directly.

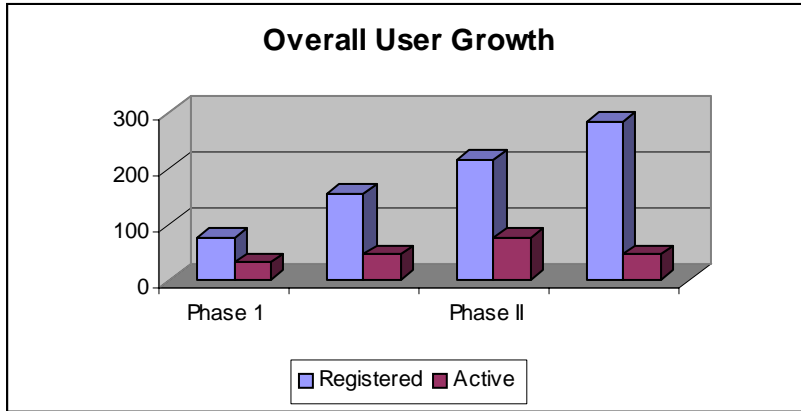
### User Growth:

There was a steady increase of user registration across Phase I, from 77 registered in January to 154 in December, resulting in an overall 100 percent increase. The number of active users in Phase I increased from 31 in January to 45 in May and November, during school peak periods, resulting in a 45 percent increase. There was almost no activity during the summer months when school was not sitting.



**Overall User Growth:**

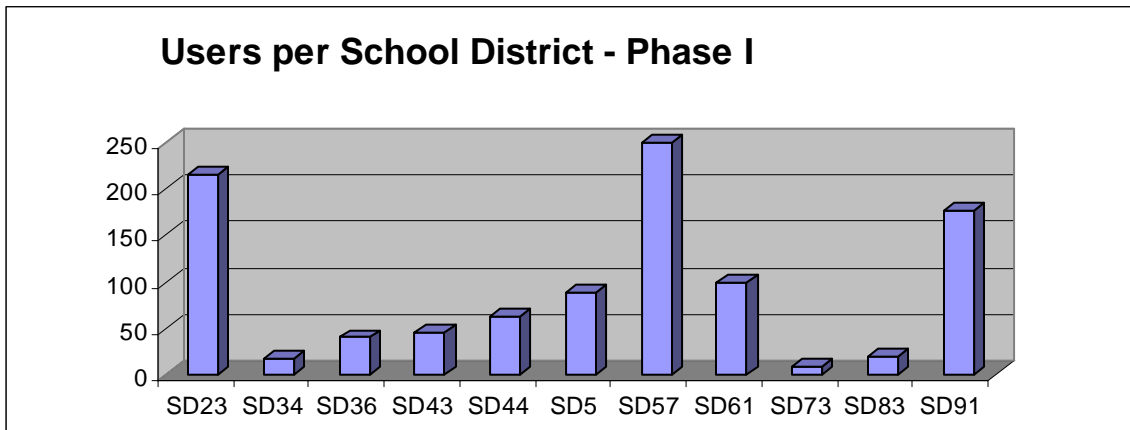
There was consistent growth of registered users across the entire pilot project. In Phase I, 21 percent of those registered were active. In Phase II, 18% of those registered were active.



**School District Use:**

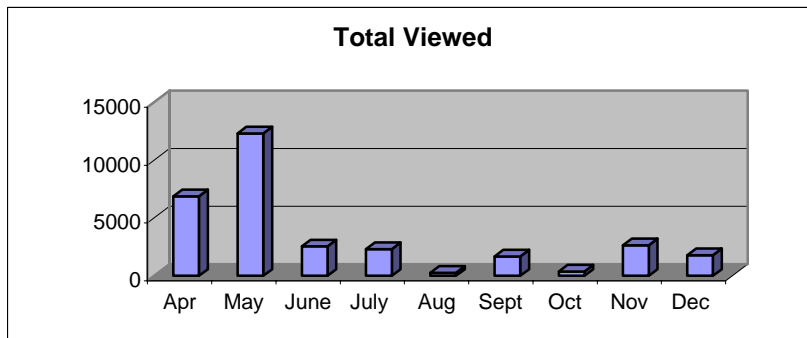
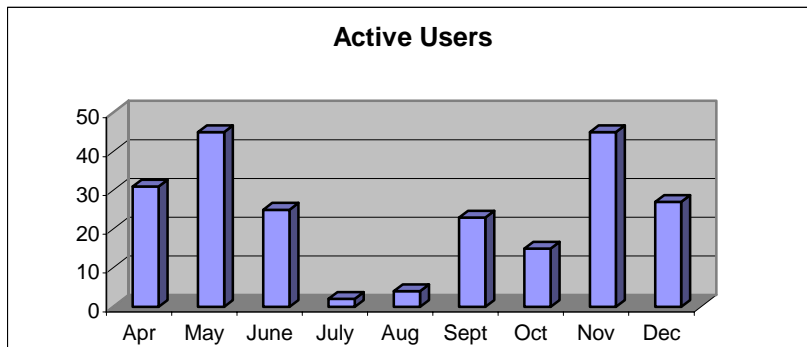
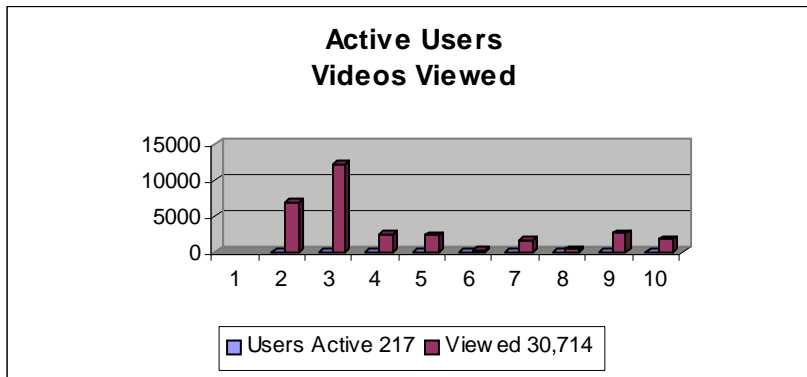
The biggest consumers at the school district level were:

- SD 57 (Prince George) with two schools in the pilot;
- SD 23 (Central Okanagan) with three schools in the pilot;
- SD 91 (Nechako Lakes/EBUS).



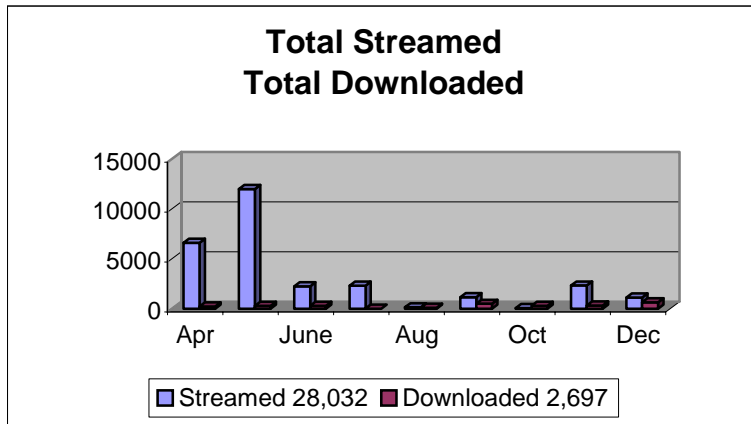
### Active Users and Videos Viewed:

The majority of viewing (62% of overall viewing) took place early in April and May, as the pilots got under way. Viewing and usage both dropped during the summer months, when school was not sitting. From September to December, active users viewed a lower number of videos than in April and May.



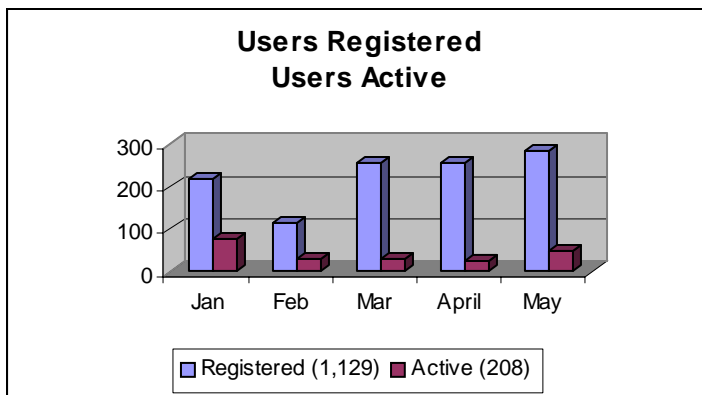
**Total Streamed and Total Downloaded:**

In the early stages of the pilot/first semester (April and May), the number of videos downloaded was an average of 3 percent, (compared to videos streamed). The gap narrowed from June to December when the number of videos downloaded was an average of 40 percent, compared to the number streamed. Across the entire semester, videos downloaded were 10 percent of videos streamed.

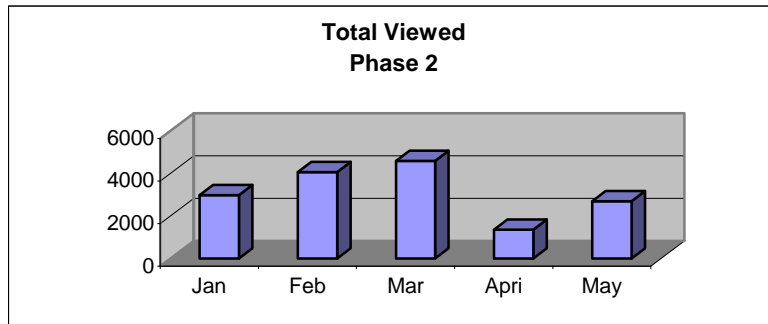


**Phase 2**

Although the number of unitedstreaming pilot sites dropped to 14 in Phase 2, the number of individual users grew. With the exception of February, there was a steady increase in user registration across Phase II, from 217 registered in January to 285 registered in May, resulting in a 31 percent increase in registered users from January to May. However, the number of active users dropped from 75 in January to 31 in February and 25 in April. This number climbed back up to 45 again by May. The end result was a 40 percent decrease in the number of active users from January to May.



The majority of viewing --55 percent-- took place in February and March.



**School District Use:**

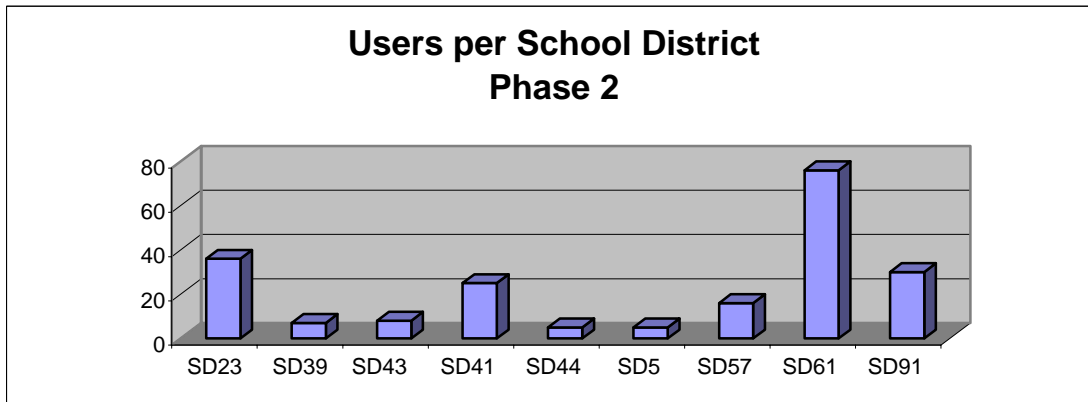
The far biggest consumer at the school district level was:

- SD 61 (Victoria) with four schools in the pilot

This may be because, other than SD 57 (Prince George) which had two schools in the second semester of the pilot, the other school districts only had one school in the pilot at this time.

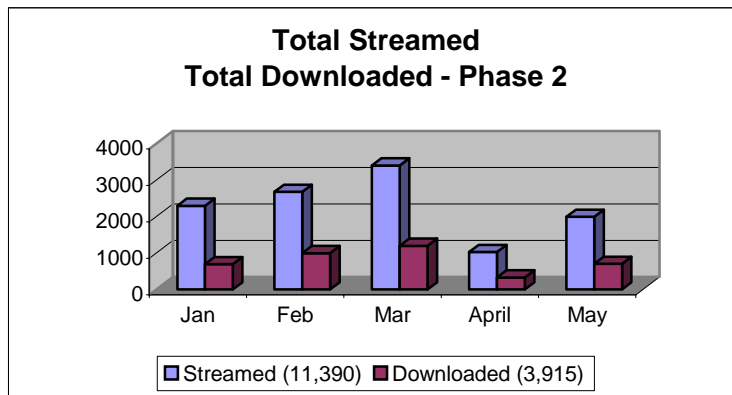
The next biggest consumers in the second semester were:

- SD 23 (Central Okanagan)
- SD 91 (Nechako Lakes / Ebus)
- SD 41 (Burnaby)



**Total Streamed and Total Downloaded:**

The gap between videos streamed and videos downloaded closed substantially in the second semester. In January and February, the number of videos downloaded was an average of 33 percent, compared to videos streamed. This is up from 3 percent in the initial months of the first semester. Across the entire semester, videos downloaded made up an average of 34 percent of the videos streamed. This is up from approximately 10 percent in the first semester. This signifies an increased number of downloads by users, rather than streamed videos, as the pilot progressed.



Certain video titles were viewed far more often than others in the library. The top ten titles were as follows:

Title	Views
Witness: Voices from the Holocaust	659
Holocaust, The: In Memory of Millions	362
Economics: A Framework for Teaching the Basic Concepts: Fundamental Economic Concepts	296
Religions of the World: Christianity	209
Events of the Twentieth Century: Lessons of the Holocaust	203
One Human Spirit	187
Religions of the World: Hinduism	180
Our Changing Earth	144
Living History: Living in Ancient Egypt	123
Religions of the World: Judaism	118

## Evaluation Summary

### Key Survey Findings

Following each phase of the two phases of the video streaming project, ERAC surveyed the pilot sites. The survey after the first phase received a 21 percent response rate while the survey response after the second phase was 35 percent. It's important to note that those who were pleased with the service were more likely to complete the survey, which means that the results were somewhat skewed to the positive. For the complete survey, see Appendix 3.

### Phase 1

The vast majority of the respondents to the Phase 1 survey were piloting Unitedstreaming and so almost all of the feedback ERAC collected refers to that service.

Most respondents felt that the training they received was beneficial. A few users reported that they did not receive training and were able to use the service anyway.

In terms of the quality of the videos, 90 percent of respondents rated them to be medium or high-quality videos. Some commented that the science and English videos in particular were plentiful with good choices. Others commented that there were not enough history titles and that the available videos were dominated by American content and bias and lacked Canadian perspective and content. Respondents noted that the InSite library was not as complete as Unitedstreaming's catalogue.

On the issue of quality, pilot sites reported that pixilation, disconnection, pauses and lags were problems that often occurred during the streaming process. They said that, during projections, image quality was sometimes poor and they noted that low resolution was an issue. They said image quality was best when the videos were streamed for a local server within a LAN. Respondents also noted some problems with sound quality.

Ninety percent of respondents rated the suitability of the video streaming service for classroom use and online education as high or medium. They said that they highly valued the on-demand access to the videos and found them easy to use. They liked some of the tools, such as the test function. They liked that fact that video streaming eliminated copyright problems and they appreciated the ability to pull out sections of material. They said video streaming supports different learning styles and self-directed learning.

In terms of overall weaknesses associated with the services, survey respondents again cited poor audio quality and the US bias and lack of Canadian content. They said that

images could be of poor quality and some of the videos were dated. They also commented that there was a scarcity of humanities videos.

Overall, respondents said they liked having the ability to download resource materials such as lesson plans. They said that their colleagues were impressed with the service and they found school-wide support for video streaming. They noted that schools need sufficient server capability to support the demand. They said the service is very beneficial for some students and indispensable for others. They highly recommended it but commented that some teachers are not yet ready to embrace it.

## **Phase 2**

The survey following Phase 2 showed that, once again, the vast majority of participants were using Unitedstreaming. Most of the usage was at the middle and high school levels and the subject areas most frequently supported by the video streaming service were science and social studies, followed by biology, chemistry, language arts/English, CAPP, math and physics.

Ninety-six percent of respondents rated video streaming as easy or somewhat easy to use. They added that it had a good search engine and offered a clear, uncluttered interface. In terms of the quality of the videos, 56 percent rated them as medium quality while 34 percent rated them high. Respondents said the videos displayed the concepts well. They added, however, that the quality of videos was sometimes uneven, that some titles were dated, that the sound was sometimes too low and that videos were not clear in full-screen mode.

The participants were fairly evenly divided when it came to rating the value of the videos to their classroom and across the province but they indicated that 50 percent or more of the titles would be valuable to BC schools. A clear majority (88 percent) felt that video streaming is an effective learning resource that is more valuable than VHS tapes or DVD's.

In commenting on the benefits of video streaming over VHS tapes or DVDs, respondents said that video streaming offers easy access and flexibility. They cited student use of clips in projects and said the service was good for online learning and for individual student activities. They praised the search function and the availability of "chunk" segments. They said that video streaming can address "teachable moments" more readily and added that it saves time because no booking of videos is required. Teachers said video streaming does not require management of physical media and offered more subjects and topics. They also commented that video streaming is cheaper and more adaptable than DVDs, citing especially the lack of DVD players in schools and the short lifespan of DVDs.

Participants used video streaming in a variety of ways in the classroom. The most common approach was to for the teacher to use it before the full class. Many participants reported that they allowed students to use clips for group or individual presentations. The resource seemed to engage students as 74 percent of respondents noted that video streaming led to moderate or dramatic improvement in student engagement. Forty-two percent reported moderate improvement in student achievement.

Respondents said that, overall, they liked the availability of video streaming and the support materials it provided. They liked the segmentation or “chunking” of materials and the ease of use. They said they appreciated the search function, flexibility, high quality and instant previewing of video streaming. They also praised its ability to integrate with PowerPoint presentations.

Respondents also cited some weaknesses of video streaming. They said that the service needs to cover more subject areas and should include more Canadian content. They pointed out that high-speed Internet access is required for effective use. Some cited the sometimes poor image or sound quality. Others noted that some of the videos were dated.

Some respondents added they had found that students liked the service and teachers found it to be an extremely valuable teaching/learning tool. Some commented that the pilot was a very successful introduction to streamed media for many teachers and said anybody who tried it was hooked. Others noted that it’s a great concept and service but, perhaps, it’s ahead of school districts’ readiness and infrastructure right now.

All of the respondents would like to continue to use video streaming in the future and the majority said they would use it frequently. Most felt that at least half of their fellow teachers would also be interested in using video streaming.

## Pricing Quotes

The two video streaming services that continued to be piloted in Phase 2 have provided ERAC and the participating districts and schools with some initial pricing options. The ERAC executive will consider the results of the pilot and in the Fall of 2005 will then decide whether or not to aggregate demand for one or more services and negotiate consortium pricing. Pilot sites choosing not to purchase continued services at this time will have to delete all downloaded video files.

## Unitedstreaming

Since the original Pilot began in April 2004, Discovery Education's unitedstreaming has seen many additions to both content and features including:

- video content increased from 2,000 to 4,000 titles and more than 40,000 clips and continually expanding
- Image Library increased from 1,000 to over 17,000 high-resolution images
- addition of a Clip Art Gallery with 1,100 pictures
- addition of an Editable Video Clip Library with 1,200 titles that may be edited, re-narrated, or incorporated into multimedia projects
- addition of a Teacher Centre to assist in the training and familiarization of unitedstreaming
- all material may be downloaded and incorporated into daily lesson plans

The 14 pilot school districts have been offered continued access to unitedstreaming in the form of a twelve-month subscription for \$2.25/student with a minimum of \$825/school. The price for all other schools in BC is \$2.50/student with a minimum of \$850 per school. Prices are subject to applicable taxes.

## MonD

Pilot participants will have the opportunity to purchase MonD and the video content at a 50 percent discount, and lower. Special pricing is also available for all schools in school districts where MonD has been piloted. This offer is available to ERAC Video Streaming Pilot schools and school districts only and is valid to September 1, 2005.

## MonD Pilot Extension Offer

**1. MonD Player software\*** (Regular price \$500)

\$250 for piloting schools

\$350 for each additional school in SD 23 Central Okanagan, SD 27 Cariboo-Chilcotin,

SD 67 Okanagan-Skaha, SD 57 Prince George

**2. MonD Manager software** (Regular price \$1,000)

\$500 for piloting schools

\$700 for each additional school in SD 23, 27, 67, 57

**3. External hard disk drive, 120 – 160 GB shipped with software and customized video content.** (Regular price \$300)

\$150 for piloting schools

\$210 for each additional school in SD 23, 27, 67, 57

**4. Video titles** (Regular price as per Classroom Video catalogue, from \$74 - \$124 per title)

\$15 per title for piloting schools and all other schools in SD 23, 27, 67, 57

Add shipping add applicable taxes

## MonD High School Package

### One- time payment

- 320 Grade 7-12 program titles
- Plus MonD Player & Manager software \$5/student

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\* MonD Player software may be installed on any participating school computers as well as the personal computers of all teachers and registered students.

### Annual subscription option

- |                               |                    |
|-------------------------------|--------------------|
| • 30 videos produced in 2005* | \$1/student        |
| • 30 videos produced in 2006  | \$1/student        |
| • 30 videos produced in 2007  | <u>\$1/student</u> |
|                               | Total \$8/student  |

### 3-Year Purchase Plan

- |  |                |
|--|----------------|
| • Videos, software, production 2005-7          | \$3/student/yr |
| • CV digital library, MonD player and manager. |                |
| • 30 new videos per year for three years.      |                |

### Delivery

- |                   |       |
|-------------------|-------|
| • Hard disc drive | \$300 |
|-------------------|-------|

### Number of students

- Minimum of 300 students for pricing of one school campus.
- For multiple campuses, there is a 1 percent discount per 1,000 students.

### Rights

The videos may be copied and used within the school and the homes of the school members. Videos produced and shot by Classroom Video may not be re-edited or shared with other schools.

### GST

- Add applicable taxes and shipping.  
\* This option is evergreen with year beginning on purchase date.
- If fewer than 30 videos are produced in any given year, customer may select any title from Classroom Video catalogue.

### Digital Lease Library option

Select 100 titles from a rapidly expanding catalogue of leading North American and International producers for \$500 per year. 10 titles may be exchanged annually at no



additional cost. Add new titles every year for an additional \$5 per year. The lease can be cancelled on your anniversary date, redeemable for videos. This special offer includes plug and play MonD software.

## Conclusion

The video streaming pilot has provided some valuable insights into the appropriateness of this technology for BC classrooms. It has also studied the quality of three video streaming services. Although they are in the minority in the province as a whole, many teachers who piloted the services said they are ready and, indeed, eager to incorporate video streaming into their classroom practice. The piloting teachers also noted that students, for the most part, are willing consumers of video streaming. One of the main concerns expressed by teachers at the pilot sites, however, was that many schools lack access to the necessary equipment and hardware to make video streaming efficient or even possible.

Teachers reported that extensive training was not necessary for any of the three video streaming services -- Unitedstreaming, InSite and MonD -- included in this pilot but they did require some basic familiarization with the functionality and some follow-up support. They also reported that most users would benefit from some professional development that would assist them with strategies for integrating the technology into their classroom practice.

Of the three services piloted in schools, Unitedstreaming was the most widely used and received the most positive feedback. Unitedstreaming had, by far, the largest digital library with 4,000 titles, 40,000 clips and 2,800 images. In using Unitedstreaming, most of the piloting teachers reported they were able to access videos or video clips that were useful to them and to their students. They did, however, express some concerns about the video content. They noted, for example, that some of the videos were dated, did not match the BC curriculum and offered an American bias with little or no Canadian content.

In commenting on the Australian-produced MonD service, teachers indicated that Australian accents posed a problem for some students. As well, they noted the low-percentage match of the videos with BC curriculum. But while the video library may not have appealed to schools, teachers identified MonD as a tool that both teachers and students found they could use to create their own digital videos. In this sense, comparing this service with the two others is problematic, because while teachers and students may not have used the service for its videos, they found an alternate, effective way of using it for other projects.

Teachers involved in InSite pilot sites reported that they received little user support, after the initial training session, which made further use problematic. As well, InSite's library of videos offered limited choice with only 1,962 titles.

Overall, teachers noted that video streaming was affected by the infrastructure in place in schools to support it. Since different schools have different levels of network performance and because so many factors affect video streaming --such as the number



and capacity of computers being used at the same time-- the quality of the service varied between schools. At times, teachers reported, videos would stop and start or become pixilated. Because of this concern, programs were primarily downloaded to a local server or DVD and accessed later.

These concerns aside, the overwhelming teacher support for video streaming was apparent in most teachers' responses. They said they found it to be a very effective teaching/learning tool that appealed to both teachers and students. They see value in it for teachers and for students and expressed their desire to continue with the service, even after the pilot ended.

## **Recommendations**

ERAC is pleased to have been able to fund and coordinate this video streaming pilot with some of its member school districts. The enthusiasm of the pilot participants for video streaming leaves little doubt that this is a technology that has significant value for BC educators and students.

ERAC never intended to provide financial support beyond the pilot period, and is not in a position to continue to financially support schools that want to continue to use the video streaming services. This report has been disseminated with the intent to provide districts with an overview of the technology and its applications. We hope that districts will be able to use this information to determine whether this is an area they would like to explore further. Based on further discussions with districts in the fall, ERAC will determine whether or not there is sufficient interest for ERAC to undertake price and service negotiations for these services.

The vendors have offered discounts on the video streaming services to schools and school districts that participated in the pilot. ERAC suggests that if schools or districts enter into any agreements for video streaming services, the agreement should include an understanding that if future ERAC negotiations result in improved pricing, school districts will enjoy the same lower price.

## Appendix 1

### Participants: Phase 1

SD	School District Name	Sites	# of Participants	Unitedstreaming	InSite	MonD
5	Southeast Kootenay	Mount Baker Secondary	3	✓	✓	
		Max Turyk Elementary	1	✓	✓	
23	Central Okanagan	Hudson Road Elementary	4	✓		
		Okanagan Mission Secondary	13	✓		
		Kelowna Senior Secondary	7			✓
		Glenrosa Middle	5	✓		
27	Cariboo-Chilcotin	Columnneetza Secondary	3			✓
33	Chilliwack	Vedder Middle School	1		✓	✓
34	Abbotsford	WJ Mouat Secondary	2	✓		
36	Surrey	Panorama Park	1	✓		
		Simon Cunningham Elementary	1	✓		
		Enver Creek Secondary	1	✓		
39	Vancouver	<u>Gladstone Secondary</u>	1	✓	✓	
		Henderson Elementary	1	✓	✓	
		<u>Tillicum Annex</u>	1	✓	✓	
43	Coquitlam	Pitt River Middle	2		✓	
		Montgomery Middle	1		✓	
		Summit Middle	1		✓	
		Kwayhquitlum Middle	3		✓	
		Maple Creek Middle	5	✓		

SD	School District Name	Sites	# of Participants	Unitedstreaming	InSite	MonD
44	North Vancouver	Sutherland Secondary	1		✓	
		Argyle Secondary	1		✓	
		Sherwood Park Elementary	1	✓	✓	
57	Prince George	Kelly Road Secondary	1	✓		
		DPTodd Secondary	2			✓
		Heather Park Middle School	2	✓		✓
61	Victoria	Rock Heights Elementary	1	✓		
		Esquimalt Senior Secondary	1	✓		
		Reynolds Secondary	1	✓		
		Colquitz Elementary	1	✓		
		Glanford Middle School	1	✓		
63	Saanich	District Resource Centre	1	✓		
67	Okanagan-Skaha	McNicoll Park Middle School	5			✓
83	North Okanagan-Shuswap	Salmon Arm Sr. Secondary	1	✓	✓	
		Shuswap Jr. Secondary	1	✓	✓	
91	Nechako Lakes	EBUS	11	✓	✓	

## Participants: Phase 2

SD	School District Name	Site	# of Participants	Unitedstreaming	MonD
5	Southeast Kootenay	Max Turyk Elementary	1	✓	
23	Central Okanagan	Okanagan Mission Secondary	9	✓	
		Glenrosa Middle	4	✓	
		Kelowna Senior Secondary	1		✓
27	Cariboo-Chilcotin	Columnneetza Secondary	1		✓
39	Vancouver	Gladstone Elementary	3	✓	
41	Burnaby	Burnaby South (new site)	11	✓	
43	Coquitlam	Maple Creek Middle	2	✓	
44	North Vancouver	Sutherland Secondary (new site)	1	✓	
		Sherwood Park Elementary	1	✓	
57	Prince George	Heather Park Middle School	5	✓	
		Kelly Road Secondary	4	✓	
		D.P. Todd Secondary	1		✓
61	Victoria	Esquimalt Senior Secondary	3	✓	
		Colquitz Elementary School	1	✓	
		Reynolds Secondary	1	✓	

		Glanford Middle School	1	✓	
67	Okanagan-Skaha	McNicoll Park Middle School	1		✓
91	Nechako Lakes	E-BUS	14	✓	

## Appendix 2

### Unitedstreaming Usage Reports: Phase 1

(details not available from other vendors)

#### BC Videostreaming Pilot User Report: April 1, 2004 – April 30, 2004

SD	SCHOOL	USERS REGISTERED	USERS ACTIVE IN MONTH	VIEWS	STREAMED VIDEOS	DOWN-LOADED VIDEOS
SD 23	Glenrosa Middle School	5	2	35	26	9
SD 23	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	13	4	664	655	9
SD 34	WJ Mouat Secondary School	2	1	8	1	7
SD 36	Enver Creek Secondary School	1	0	0	0	0
SD 36	Panorama Park Elementary	1	1	15	9	6
SD 36	Simon Cunningham Elementary	1	0	0	0	0
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	1	17	13	4
SD 44	Seycove Secondary School	1	1	74	64	10
SD 44	Sherwood Park Elementary School	1	1	7	1	6
SD 5	Max Turyk Elementary School	1	1	931	878	53
SD 5	Mount Baker Secondary School	6	4	273	250	23
SD 57	Heather Park Middle School	1	0	0	0	0
SD 57	Kelly Road Secondary School	14	9	3290	3204	86
SD 61	Colquitz Elementary School	1	1	298	297	1
SD 61	Esquimalt Secondary School	1	0	0	0	0
SD 61	Reynolds Secondary School	1	0	0	0	0
SD 61	Rockheights Elementary School	1	1	1193	1190	3
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	1	9	9	0
SD 83	Shuswap Junior Secondary	0	0	0	0	0
SD 91	EBUS	12	3	53	32	21

**BC Videostreaming Pilot User Report: May 1, 2004 – May 31, 2004**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGIST ERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWES</b>	<b>STREAMED VIDEOS</b>	<b>DOWN- LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	6	1	76	1	75
SD 23	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	13	6	766	760	6
SD 34	WJ Mouat Secondary School	2	1	1	1	0
SD 36	Enver Creek Secondary School	1	0	0	0	0
SD 36	Panorama Park Elementary	1	1	7	4	3
SD 36	Simon Cunningham Elementary	1	1	3	0	3
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	2	600	586	14
SD 44	Seycove Secondary School	1	1	17	14	3
SD 44	Sherwood Park Elementary School	1	1	30	1	29
SD 5	Max Turyk Elementary School	1	1	1153	1141	12
SD 5	Mount Baker Secondary School	6	1	6	6	0
SD 57	Heather Park Middle School	1	1	3	3	0
SD 57	Kelly Road Secondary School	19	10	588	544	44
SD 61	Colquitz Elementary School	1	1	5918	5903	15
SD 61	Esquimalt Secondary School	1	1	459	447	12
SD 61	Reynolds Secondary School	4	1	59	53	6
SD 61	Rockheights Elementary School	1	1	10	7	3
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	0	0	0	0
SD 83	Shuswap Junior Secondary	1	1	1	0	1
SD 91	EBUS	20	13	2600	2529	71

**BC Videostreaming Pilot User Report: June 1, 2004 – June 30, 2004**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	6	1	1	1	0
SD 23	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	13	4	57	29	28
SD 34	WJ Mouat Secondary School	2	0	0	0	0
SD 36	Enver Creek Secondary School	1	0	0	0	0
SD 36	Panorama Park Elementary	1	0	0	0	0
SD 36	Simon Cunningham Elementary	1	0	0	0	0
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	1	9	9	0
SD 44	Seycove Secondary School	1	0	0	0	0
SD 44	Sherwood Park Elementary School	1	0	0	0	0
SD 5	Max Turyk Elementary School	1	1	569	533	36
SD 5	Mount Baker Secondary School	6	2	17	5	12
SD 57	Heather Park Middle School	2	1	10	10	0
SD 57	Kelly Road Secondary School	20	6	458	278	180
SD 61	Colquitz Elementary School	1	1	1290	1290	0
SD 61	Esquimalt Secondary School	1	0	0	0	0
SD 61	Reynolds Secondary School	5	0	0	0	0
SD 61	Rockheights Elementary School	1	1	1	0	1
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	0	0	0	0
SD 83	Shuswap Junior Secondary	1	1	67	43	24
SD 91	EBUS	20	6	69	52	17

**BC Videostreaming Pilot User Report: July 1, 2004 – July 31, 2004**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	6	0	0	0	0
SD 23	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	13	0	0	0	0
SD 34	WJ Mouat Secondary School	2	0	0	0	0
SD 36	Enver Creek Secondary School	1	0	0	0	0
SD 36	Panorama Park Elementary	1	0	0	0	0
SD 36	Simon Cunningham Elementary	1	0	0	0	0
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	0	0	0	0
SD 44	Seycove Secondary School	1	0	0	0	0
SD 44	Sherwood Park Elementary School	1	0	0	0	0
SD 5	Max Turyk Elementary School	1	0	0	0	0
SD 5	Mount Baker Secondary School	6	0	0	0	0
SD 57	Heather Park Middle School	2	0	0	0	0
SD 57	Kelly Road Secondary School	20	1	2309	2309	0
SD 61	Colquitz Elementary School	1	0	0	0	0
SD 61	Esquimalt Secondary School	1	0	0	0	0
SD 61	Reynolds Secondary School	6	0	0	0	0
SD 61	Rockheights Elementary School	1	0	0	0	0
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	0	0	0	0
SD 83	Shuswap Junior Secondary	1	0	0	0	0
SD 91	EBUS	20	1	3	3	0

**BC Videostreaming Pilot User Report: August 1, 2004 – August 31, 2004**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	6	0	0	0	0
SD 23	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	13	0	0	0	0
SD 34	WJ Mouat Secondary School	2	0	0	0	0
SD 36	Enver Creek Secondary School	1	0	0	0	0
SD 36	Panorama Park Elementary	1	0	0	0	0
SD 36	Simon Cunningham Elementary	1	0	0	0	0
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	0	0	0	0
SD 44	Seycove Secondary School	1	0	0	0	0
SD 44	Sherwood Park Elementary School	1	0	0	0	0
SD 5	Max Turyk Elementary School	1	0	0	0	0
SD 5	Mount Baker Secondary School	6	0	0	0	0
SD 57	Heather Park Middle School	2	0	0	0	0
SD 57	Kelly Road Secondary School	20	2	198	133	65
SD 61	Colquitz Elementary School	1	0	0	0	0
SD 61	Esquimalt Secondary School	1	0	0	0	0
SD 61	Reynolds Secondary School	7	0	0	0	0
SD 61	Rockheights Elementary School	1	0	0	0	0
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	0	0	0	0
SD 83	Shuswap Junior Secondary	1	0	0	0	0
SD 91	EBUS	20	2	55	15	40

## BC Videostreaming Pilot User Report: September 1, 2004 – September 30, 2004

SD	SCHOOL	USERS REGISTERED	USERS ACTIVE IN MONTH	VIEWS	STREAMED VIDEOS	DOWN-LOADED VIDEOS
SD 23	Glenrosa Middle School	11	2	156	27	129
SD 23	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	16	3	39	39	0
SD 34	WJ Mouat Secondary School	2	0	0	0	0
SD 36	Enver Creek Secondary School	0	0	0	0	0
SD 36	Panorama Park Elementary	1	0	0	0	0
SD 36	Simon Cunningham Elementary	1	0	0	0	0
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Pilot Project - Eff 10/04	3	N/A	N/A	N/A	N/A
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	0	0	0	0
SD 44	Seycove Secondary School	1	0	0	0	0
SD 44	Sherwood Park Elementary School	1	0	0	0	0
SD 5	Max Turyk Elementary School	7	5	87	32	55
SD 5	Mount Baker Secondary School	6	0	0	0	0
SD 57	Heather Park Middle School	7	3	130	130	0
SD 57	Kelly Road Secondary School	21	4	125	13	112
SD 61	Colquitz Elementary School	1	1	2	2	0
SD 61	Esquimalt Secondary School	1	0	0	0	0
SD 61	Glanford Middle School Eff 10/04	1	N/A	N/A	N/A	N/A
SD 61	Reynolds Secondary School	9	1	4	4	0
SD 61	Rockheights Elementary School	1	0	0	0	0
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	0	0	0	0
SD 83	Shuswap Junior Secondary	1	0	0	0	0
SD 91	EBUS	20	4	1121	917	204

**BC Videostreaming Pilot User Report: October 1, 2004 – October 27, 2004**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	11	2	13	0	13
SD 23	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	16	2	48	2	46
SD 34	WJ Mouat Secondary School	2	0	0	0	0
SD 36	Enver Creek Secondary School	0	0	0	0	0
SD 36	Panorama Park Elementary	1	0	0	0	0
SD 36	Simon Cunningham Elementary	1	0	0	0	0
SD 36	Surrey Connect	1	0	0	0	0
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Pilot Project - Eff 10/04	3	2	99	0	99
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	0	0	0	0
SD 44	Seycove Secondary School	1	0	0	0	0
SD 44	Sherwood Park Elementary School	1	0	0	0	0
SD 5	Max Turyk Elementary School	7	1	12	12	0
SD 5	Mount Baker Secondary School	6	0	0	0	0
SD 57	Heather Park Middle School	7	2	18	18	0
SD 57	Kelly Road Secondary School	21	3	18	2	16
SD 61	Colquitz Elementary School	1	0	0	0	0
SD 61	Esquimalt Secondary School	1	0	0	0	0
SD 61	Glanford Middle School Eff 10/04	1	0	0	0	0
SD 61	Reynolds Secondary School	9	0	0	0	0
SD 61	Rockheights Elementary School	1	0	0	0	0
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	0	0	0	0
SD 83	Shuswap Junior Secondary	1	0	0	0	0
SD 91	EBUS	20	3	159	38	121

## BC Videostreaming Pilot User Report: November 1, 2004 – November 30, 2004

SD	SCHOOL	USERS REGISTERED	USERS ACTIVE IN MONTH	VIEWS	STREAMED VIDEOS	DOWN-LOADED VIDEOS
SD 23	Glenrosa Middle School	11	4	132	117	15
SD 23	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	16	6	124	109	15
SD 34	WJ Mouat Secondary School	2	0	0	0	0
SD 36	Enver Creek Secondary School	0	0	0	0	0
SD 36	Panorama Park Elementary	1	1	4	4	0
SD 36	Simon Cunningham Elementary	1	0	0	0	0
SD 36	Surrey Connect	1	0	0	0	0
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Pilot Project - Eff 10/04	4	3	104	37	67
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	1	11	11	0
SD 44	Seycove Secondary School	1	1	180	180	0
SD 44	Sherwood Park Elementary School	1	0	0	0	0
SD 5	Max Turyk Elementary School	7	1	2	2	0
SD 5	Mount Baker Secondary School	6	0	0	0	0
SD 57	Heather Park Middle School	9	1	17	17	0
SD 57	Kelly Road Secondary School	37	16	137	107	30
SD 61	Colquitz Elementary School	2	1	730	730	0
SD 61	Esquimalt Secondary School	5	1	2	2	0
SD 61	Glanford Middle School Eff 10/04	1	1	32	32	0
SD 61	Reynolds Secondary School	9	2	65	65	0
SD 61	Rockheights Elementary School	1	1	45	45	0
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	0	0	0	0
SD 83	Shuswap Junior Secondary	2	0	0	0	0
SD 91	EBUS	22	5	1056	868	188

**BC Videostreaming Pilot User Report: December 1, 2004 – December 31, 2004**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	10	2	40	14	26
SD 23)	Hudson Road Elementary School	4	0	0	0	0
SD 23	Okanagan Mission Secondary School	16	2	5	5	0
SD 34	WJ Mouat Secondary School	2	0	0	0	0
SD 36	Enver Creek Secondary School	0	0	0	0	0
SD 36	Panorama Park Elementary	1	1	178	103	75
SD 36	Simon Cunningham Elementary	1	0	0	0	0
SD 36	Surrey Connect	1	0	0	0	0
SD 39	Gladstone Elementary - Eff 10/04	4	1	37	15	22
SD 39	GVDES / VLN	1	0	0	0	0
SD 39	Henderson Elementary School	1	0	0	0	0
SD 39	Prince of Wales Secondary School	1	0	0	0	0
SD 43	Maple Creek Middle School	5	1	14	13	1
SD 44	Seycove Secondary School	1	1	53	52	1
SD 44	Sherwood Park Elementary School	1	0	0	0	0
SD 5	Max Turyk Elementary School	8	1	1	0	1
SD 5	Mount Baker Secondary School	6	0	0	0	0
SD 57	Heather Park Middle School	9	1	14	14	0
SD 57	Kelly Road Secondary School	37	4	413	13	400
SD 61	Colquitz Elementary School	2	1	323	281	42
SD 61	Esquimalt Secondary School	5	3	174	167	7
SD 61	Glanford Middle School Eff 10/04	1	1	83	72	11
SD 61	Reynolds Secondary School	9	2	26	17	9
SD 61	Rockheights Elementary School	1	1	26	18	8
SD 73	Chase Secondary School	1	0	0	0	0
SD 83	Salmon Arm Senior Secondary	1	0	0	0	0
SD 83	Shuswap Junior Secondary	2	0	0	0	0
SD 91	EBUS	23	5	392	346	46

**District Usage Summary**  
**Phase 1: 04/01/2004 to 12/31/2004**

<b>District</b>	<b>Views</b>	<b>MBs Transferred</b>
ABBOTSFORD	9	
CENTRAL OKANAGAN	4722	
COQUITLAM	644	
KAMLOOPS-THOMPSON	1	
NECHAKO LAKES	13302	
NORTH OKANAGAN-SHUSWAP	81	
NORTH VANCOUVER	397	
PRINCE GEORGE	11365	
SOUTHEAST KOOTENAY	3265	
SURREY	207	
VANCOUVER	268	
VICTORIA	11766	
Total Views:		
Total MBs:		

## Usage Reports: Phase 2

### BC Videostreaming Pilot User Report: January 1 – 31, 2005

SD	SCHOOL	USERS REGISTERED	USERS ACTIVE IN MONTH	VIEWS	STREAMED VIDEOS	DOWN-LOADED VIDEOS
SD 23	Glenrosa Middle School	10	4	65	35	30
SD 23	Okanagan Mission Secondary School	16	4	43	39	4
SD 39	Gladstone Elementary	4	2	85	63	22
SD 43	Maple Creek Middle School	5	1	21	15	6
SD 41	Burnaby South	9	8	103	90	13
SD 44	Sutherland Secondary School	1	1	747	565	182
SD 5	Max Turyk Elementary School	8	1	2	1	1
SD 57	Heather Park Middle School	10	4	90	87	3
SD 57	Kelly Road Secondary School	37	2	49	13	36
SD 61	Colquitz Elementary School	2	1	358	275	83
SD 61	Esquimalt Secondary School	5	2	93	89	4
SD 61	Glanford Middle School	1	1	35	31	4
SD 61	Reynolds Secondary School	79	31	230	186	44
SD 91	EBUS	30	13	1069	807	262

**BC Videostreaming Pilot User Report: February 1-28, 2005**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	10	2	19	15	4
SD 23	Okanagan Mission Secondary School	16	5	528	173	355
SD 39	Gladstone Elementary	5	2	112	25	87
SD 43	Maple Creek Middle School	5	2	224	155	69
SD 41	Burnaby South	12	8	110	99	11
SD 44	Sherwood Park Elementary	1	1	360	182	178
SD 44	Sutherland Secondary School	1	1	365	212	153
SD 5	Max Turyk Elementary School	8	1	2	2	0
SD 57	Heather Park Middle School	10	2	73	70	3
SD 57	Kelly Road Secondary School	37	4	9	6	3
SD 61	Colquitz Elementary School	2	1	524	477	47
SD 61	Esquimalt Secondary School	5	1	12	9	3
SD 61	Glanford Middle School	1	1	321	274	47
SD 61	Reynolds Secondary School	113	30	272	238	34
SD 91	EBUS	30	8	1135	737	398

**BC Videostreaming Pilot User Report: March 1-30, 2005**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	10	1	66	55	11
SD 23	Okanagan Mission Secondary School	16	5	523	130	393
SD 39	Gladstone Elementary	5	1	8	2	6
SD 43	Maple Creek Middle School	5	2	244	86	158
SD 41	Burnaby South	12	3	114	92	22
SD 44	Sherwood Park Elementary	1	1	278	138	140
SD 44	Sutherland Secondary School	1	1	130	104	26
SD 57	Heather Park Middle School	11	2	40	38	2
SD 57	Kelly Road Secondary School	37	0	0	0	0
SD 61	Colquitz Elementary School	2	1	2031	1978	53
SD 61	Esquimalt Secondary School	5	1	9	7	2
SD 61	Glanford Middle School	1	1	187	168	19
SD 61	Reynolds Secondary School	121	6	17	11	6
SD 91	EBUS	30	6	949	590	359

**BC Videostreaming Pilot User Report: April 1-27, 2005**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	10	2	20	11	9
SD 23	Okanagan Mission Secondary School	16	5	70	39	31
SD 39	Gladstone Elementary	5	1	17	5	12
SD 43	Maple Creek Middle School	5	2	212	136	76
SD 41	Burnaby South	12	4	67	61	6
SD 44	Sherwood Park Elementary	1	1	129	45	84
SD 44	Sutherland Secondary School	1	1	136	121	15
SD 57	Heather Park Middle School	11	0	0	0	0
SD 57	Kelly Road Secondary School	37	1	10	0	10
SD 61	Colquitz Elementary School	2	1	222	212	10
SD 61	Esquimalt Secondary School	5	0	0	0	0
SD 61	Glanford Middle School	1	1	115	110	5
SD 61	Reynolds Secondary School	121	1	8	6	2
SD 91	EBUS	30	5	351	282	69

**BC Videostreaming Pilot User Report: April 28 – May 31, 2005**

<b>SD</b>	<b>SCHOOL</b>	<b>USERS REGISTERED</b>	<b>USERS ACTIVE IN MONTH</b>	<b>VIEWS</b>	<b>STREAMED VIDEOS</b>	<b>DOWN-LOADED VIDEOS</b>
SD 23	Glenrosa Middle School	10	3	31	8	23
SD 23	Okanagan Mission Secondary School	16	5	38	30	8
SD 39	Gladstone Elementary	5	1	7	0	7
SD 43	Maple Creek Middle School	5	1	10	8	2
SD 41	Burnaby South	13	2	46	36	10
SD 44	Sherwood Park Elementary	1	1	269	33	236
SD 44	Sutherland Secondary School	1	1	106	77	29
SD 57	Heather Park Middle School	11	3	56	56	0
SD 57	Kelly Road Secondary School	37	1	17	0	17
SD 61	Colquitz Elementary School	2	1	678	641	37
SD 61	Esquimalt Secondary School	5		340	286	54
SD 61	Glanford Middle School	1	1	125	106	19
SD 61	Reynolds Secondary School	148	20	103	61	42
SD 91	EBUS	30	6	868	651	217

**District Usage Summary**  
**Phase 2: 01/03/2005 to 06/30/2005**

*(Data not available until July)*

## Appendix 3

### Evaluation Survey Results

#### Phase 1

#### Survey Results -- Overview Launched Date: 11/30/2004

1.	Total Respondents:		30
2.	Videostreaming Service Name:	<b>Response Total</b>	<b>Response Percent</b>
	unitedstreaming (United Learning)	27	90%
	InSite (Magic Lantern)	1	3%
	MonD (Classroom Video)	2	7%
	Total Respondents		30
3.	Was the initial training session beneficial?	<b>Response Total</b>	<b>Response Percent</b>
	Yes	22	73%
	No	8	27%
	Total Respondents		30
4.	Did you receive follow up training?	<b>Response Total</b>	<b>Response Percent</b>
	Yes	1	3%
	No	29	97%
	Total Respondents		30
5.	How could the training be improved?		
	<b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>those that received the training felt it was good</li> <li>some users had no training, but were able to use the service anyway</li> </ul>		
6.	What do you think of the number of videos available?		
	<b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>generally acceptable</li> <li>Science and English videos, in particular, were plentiful and good</li> <li>not enough Canadian content and history titles</li> <li>the InSite library was not as complete as unitedstreaming's catalogue</li> </ul>		

7.	How often were you able to satisfy your search for suitable video clips/programs?	<b>Response Total</b>	<b>Response Percent</b>
	<30%	2	7%
	30-50%	4	13%
	50-70%	12	40%
	>70%	12	40%
	Total Respondents		30
8.	What did you think of the quality of the videos available?	<b>Response Total</b>	<b>Response Percent</b>
	Low	3	10%
	Medium	13	43%
	High	14	47%
	Total Respondents		30
9.	Explain your response to <b>Question #8</b> :		
	<p><b>Summary of Responses:</b></p> <ul style="list-style-type: none"> <li>• pixellation, disconnection, pauses and lag were often problems when streaming</li> <li>• image quality was sometimes poor when projected: low resolution issue</li> <li>• image quality was best when streamed from a local server within a LAN</li> <li>• some problems with sound quality</li> <li>• videos were mostly good quality, current</li> <li>• strong American bias</li> </ul>		
10.	How would you rate the suitability of this video streaming service for classroom use?	<b>Response Total</b>	<b>Response Percent</b>
	Low	3	10%
	Medium	12	40%
	High	15	50%
	Total Respondents		30
11.	How would you rate the suitability of this video streaming service for online education?	<b>Response Total</b>	<b>Response Percent</b>
	Low	4	14%
	Medium	7	24%
	High	18	62%
	Total Respondents		29
	(skipped this question)		1
12.	Overall strengths observed so far:		
	<p><b>Summary of Responses:</b></p> <ul style="list-style-type: none"> <li>• on-demand access was highly valued</li> <li>• easy to use</li> <li>• good tools (e.g.; test/quiz function)</li> <li>• avoids copyright problems</li> <li>• segments support “chunking”</li> <li>• supports different learning styles and self-directed learning</li> </ul>		














13.	Overall weaknesses observed so far: <b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>• poor audio</li> <li>• US bias/lack of Canadian content</li> <li>• poor image</li> <li>• dated videos</li> <li>• lack of Humanities videos</li> </ul>
14.	Special features noted: <b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>• ability to download resource materials (e.g.; blackline masters, lesson plans)</li> </ul>
15.	Additional comments: <b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>• colleagues very impressed</li> <li>• school-wide support for videostreaming</li> <li>• needs sufficient server to support demand</li> <li>• highly recommended</li> <li>• indispensable for some students</li> <li>• very beneficial for the students</li> <li>• some teachers not yet ready</li> </ul>

## Phase 2











### Survey Results -- Overview

Launched Date: 05/17/2005

1.	Total Respondents:		<b>50</b>
2.	School District #	<b>Total Respondents</b>	<b>50</b>
3.	School District Name	<b>Total Respondents</b>	<b>50</b>
4.	School Name	<b>Total Respondents</b>	<b>50</b>
5.	Videostreaming Service Name:	<b>Response Total</b>	<b>Response Percent</b>
	unitedstreaming (United Learning)	46	92%
	MonD (Classroom Video)	4	8%
	Total Respondents		<b>50</b>

6. Grades you used the videostreaming service with:														
	K	1	2	3	4	5	6	7	8	9	10	11	12	Response Total
Check all that apply:	10% (5)	10% (5)	12% (6)	12% (6)	14% (7)	14% (7)	22% (11)	34% (17)	42% (21)	30% (15)	36% (18)	38% (19)	34% (17)	50
Total Respondents														50
7. Subjects you taught using the videostreaming service:												Response Total	Response Percent	
Science												35	70%	
Social Studies												24	48%	
Language Arts/English												10	20%	
Mathematics												8	16%	
CAPP/Planning												9	18%	
Physics												6	12%	
Chemistry												11	22%	
Biology												13	26%	
Business Education												0	0%	
Other												8	16%	
Total Respondents												50		
8.	If "Other", please list:													
	<b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>• CAPP</li> <li>• ESL</li> <li>• ICT</li> <li>• Physical Education</li> <li>• Earth Science</li> <li>• Professional Development</li> </ul>													
9. How would you rate the ease of use of the videostreaming service?												Response Total	Response Percent	
Easy to use												33	66%	
Somewhat easy to use												15	30%	
Not easy, but not difficult either												1	2%	
Somewhat difficult to use												0	0%	
Difficult to use												1	2%	
Total Respondents												50		
10.	Explain your response to <b>Question #10</b> :													
	<b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>• good search engine</li> <li>• easy to use</li> <li>• clear, uncluttered interface</li> <li>• would like to be able to "play all" rather than one segment at a time</li> </ul>													

11.	What did you think of the quality of the videos available?				<b>Response Total</b>	<b>Response Percent</b>
Low					5	10%
Medium					28	56%
High					17	34%
					Total Respondents	50
12.	Explain your response to <b>Question #11</b>					
<b>Summary of Responses:</b>						
<ul style="list-style-type: none"> <li>• Concepts displayed well</li> <li>• Quality sometimes uneven</li> <li>• Some titles dated</li> <li>• Sound low at times</li> <li>• Full screen mode not clear</li> </ul>						
13.	What did you think of the quality of the videos available?				<b>Response Total</b>	<b>Response Percent</b>
Not enough					16	32%
Enough					27	54%
More than enough					7	14%
					Total Respondents	50
14.	What percentage of the available titles would be valuable in your classroom?				<b>Response Total</b>	<b>Response Percent</b>
<30%					18	36%
30-50%					13	26%
50-70%					9	18%
>70%					10	20%
					Total Respondents	50
15.	What percentage of the available titles would be valuable in your classroom?				<b>Response Total</b>	<b>Response Percent</b>
<30%					5	10%
30-50%					10	20%
50-70%					12	24%
>70%					16	32%
don't know					7	14%
					Total Respondents	50
16.	How would you rate the effectiveness of this service as a learning resource?					
	very low	low	medium	high	very high	Response Total
Please check one:	2% (1)	6% (3)	24% (12)	42% (21)	30% (15)	50
						Total Respondents
						50

17.	Would you rate videostreaming as more valuable for learning than traditional VHS video?	<b>Response Total</b>	<b>Response Percent</b>
Yes		44	88%
No		6	12%
		Total Respondents	50
18.	Explain your response to <b>Question #17</b> : <b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>• Access and flexibility</li> <li>• Student use of clips in projects</li> <li>• Good for online learning</li> <li>• Search function</li> <li>• Chunked segments</li> <li>• Good for individual student activities</li> <li>• Can address “teachable moments” more readily</li> <li>• Saves time</li> <li>• No booking required</li> </ul>		
19.	Would you rate videostreaming as more valuable for learning than DVD-based video?	<b>Response Total</b>	<b>Response Percent</b>
Yes		41	82%
No		9	18%
		Total Respondents	50
20.	Explain your response to <b>Question #19</b> : <b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>• Cheaper than DVD</li> <li>• More adaptable</li> <li>• No physical media to manage</li> <li>• More subjects/topics available</li> <li>• Lack of DVD players in schools</li> <li>• Short lifespan of DVD</li> </ul>		
21.	How did you use the videostreaming service in your classroom?	<b>Response Total</b>	<b>Response Percent</b>
Full class, teacher led		42	84%
Student self-paced		14	28%
Catch-up or remedial		12	24%
Distributed learning		9	18%
Student group or individual presentations		16	32%
Other		5	10%
		Total Respondents	50
22.	If "Other", please list: <b>Summary of Responses:</b> <ul style="list-style-type: none"> <li>• Professional Development</li> <li>• One-on-one</li> </ul>		

23.	How would you rate the impact of this service on student engagement?					
	no improvement	slight improvement	moderate improvement	dramatic improvement	can't say	Response Total
Please check one:	6% (3)	8% (4)	38% (19)	36% (18)	12% (6)	50
	Total Respondents					50
24.	How would you rate the impact of this service on student achievement?					
	no improvement	slight improvement	moderate improvement	dramatic improvement	can't say	Response Total
Please check one:	6% (3)	6% (3)	42% (21)	6% (3)	40% (20)	50
	Total Respondents					50
25.	Overall strengths observed so far:					
	<p><b>Summary of Responses:</b></p> <ul style="list-style-type: none"> <li>• Access</li> <li>• Availability</li> <li>• Support materials</li> <li>• Segmentation/chunking</li> <li>• Ease of use</li> <li>• Search function</li> <li>• Flexibility</li> <li>• Instant previewing</li> <li>• High quality</li> <li>• Ability to integrate with PowerPoint presentations</li> </ul>					
26.	Overall weaknesses observed so far:					
	<p><b>Summary of Responses:</b></p> <ul style="list-style-type: none"> <li>• More subject coverage needed</li> <li>• High speed access required for effective use</li> <li>• Lack of Canadian content</li> <li>• Some lack of quality</li> <li>• Some datedness</li> <li>• Some poor image quality</li> <li>• Some poor sound quality</li> </ul>					
27.	Additional comments					
	<p><b>Summary of Responses:</b></p> <ul style="list-style-type: none"> <li>• Loved the service</li> <li>• Students liked it</li> <li>• Extremely valuable teaching/learning tool</li> <li>• Great supplement</li> <li>• A very successful introduction to streamed media for many teachers</li> <li>• Great concept and service—perhaps ahead of our readiness and infrastructure</li> <li>• Anyone who has it is hooked</li> </ul>					

28.	Would you continue to use this videostreaming service in the future, if it were available to you?				<b>Response Total</b>	<b>Response Percent</b>
Yes					50	100%
No					0	0%
					Total Respondents	
					50	
29.	If "no", please explain:					
					Total Respondents	
					0	
					(skipped this question)	
					50	
30.	If "yes", would you use it:					
	rarely	now and then	frequently	all the time	Response Total	
Please check one:	8% (4)	27% (13)	59% (29)	8% (4)	49	
					Total Respondents	
					49	
					(skipped this question)	
					1	
31.	What percentage of your fellow teachers in your school would be technologically ready to use this resource on a regular basis?					
	0-25%	26-50%	51-75%	76-100%	don't know	Response Total
Please check one:	10% (5)	16% (8)	30% (15)	36% (18)	8% (4)	50
					Total Respondents	
					50	
32.	What percentage of your fellow teachers in your school would be interested in using this resource on a regular basis?					
	0-25%	26-50%	51-75%	76-100%	don't know	Response Total
Please check one:	16% (8)	18% (9)	28% (14)	28% (14)	10% (5)	50
					Total Respondents	
					50	