

# Assessment and Evaluation of CIHM Educational Resources

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Sample of Student Work (Grade 5)

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# Assessment and Evaluation of CIHM Educational Resources

Ian G. Bron

This was a study of the usability and usefulness of two educational Web sites developed by the Canadian Institute of Historical Microreproductions (CIHM) for its *Early Canadiana Online* Web portal. The resources, *Exploration, the Fur Trade and Hudson's Bay Company*, *Canada in the Making*, and various lesson plans, were tested in four urban classes. Assessment was made using quantitative and qualitative research methods. Results suggest that teachers at all levels welcomed the sites, and that students found them more engaging than traditional learning resources. Content quality and usability were rated highly across different curriculum areas. Rated as important were colourful and image-rich design, Web-friendly writing practices, simple and intuitive navigation, a strong link to curriculum, a good depth and breadth of information, and interactive elements. These findings suggest that further educational content at CIHM would also be welcomed, with improvement further enhancing usability and usefulness.

## Introduction

The purpose of this research was to test the design model of educational resources on the Canadian Institute of Historical Microreproductions (CIHM) web site, *Early Canadian Online* (ECO), as well as teaching strategies, and to use a simple survey to identify areas for possible improvement. In particular, it examined issues such as: computer availability in classrooms and schools (and how this affects the use of Internet resources in a school setting), design issues on different online exhibitions (what works well with different age groups), language (density of text, complexity of grammar and vocabulary for different ages), content quality and usefulness, best practices for teaching strategies, and curriculum-relevant areas for the development of Canadian Web content. The results will be useful to help establish best practices in the development of online educational tools.

The online resources being reviewed were *Exploration, the Fur Trade and Hudson's Bay Company*, *Canada in the Making*, various lesson plans, and, to a lesser extent, the ECO database of early Canadian texts. These can be viewed at the URLs below:

- Early Canadiana Online  
URL: <http://www.canadiana.org>
- *Exploration, the Fur Trade and Hudson's Bay Company*  
URL: <http://www.canadiana.org/hbc/>
- *Canada in the Making*  
URL: <http://www.canadiana.org/citm/>

## Theoretical Framework

Although this study was mainly practical in nature, there were several theoretical premises behind it. The work of Howard Gardner on Multiple Intelligences (1983), with Thomas Armstrong's extrapolation of this theory into suggested classroom practices (2000), forms the basis of the teaching and learning approach. The aim at CIHM has been to produce resources

that can address the needs of most, if not all, learners. From the Web usability and readability perspective, this study is informed by the work of Jakob Nielson (2000) and Vincent Flanders and Michael Willis (1998).

A more detailed description of the theoretical framework is available on request.

### **Hypothesis**

It was the hypothesis of this research that some CIHM primary sources available online would be difficult to access in some settings (for technical reasons such as download time, limitations in the search engine, etc.), and that some of the digitized material resources would be found to be beyond the reading levels of some students. It was also predicted that the sites *Exploration, the Fur Trade and Hudson's Bay Company* would be popular with students and teachers as a research tool and that there would be some weaknesses in the teaching strategies developed. It was predicted that *Canada in the Making* would be less popular, but still useful.

### **Method**

This research tried to simulate conditions in which the sites were meant to be used, as well as find out from teachers and students other ways in which they might be used. In addition, an effort was made to choose a variety of urban classroom settings. This was important to:

- Reflect different environments and school/class cultures
- Reflect the availability of computer and Internet connections in different settings
- Reflect different teaching practices

Time restrictions made the use of rural schools impossible.

The work was administered in different ways for the two sites tested (details can be found below). Some aspects were the same, however. In particular:

- The Educational Consultant of CIHM, Ian Bron, conducted the research with the assistance of classroom teachers. He is an Ontario-trained and qualified teacher currently employed by both the public and separate boards.
- The activities took place in the appropriate subject period, as determined by the regular classroom teacher.
- The activities were Web-based – that is, students were required to use an online CIHM exhibition site for some aspects of the activities.
- All activities were chosen by the classroom teacher in consultation with the researcher and were tied to the Ontario Curriculum (1998).

It is worth noting that although the activities were based on the Ontario Curriculum (1998) for the research, both the sites and their teaching resources have been developed with the curriculum of all Canadian regions in mind. Specific learning expectations/outcomes/objectives have been identified in the teaching resources for each region. See **Appendix A** for a summary of curriculum in these subjects across Canada.

There were some scheduling problems due to limited access to computer labs. As no classroom had enough computers to allow for more than small-group activities, these problems led to some restrictions on the amount of time available to work with the students. Teachers did not feel that this was a significant shortcoming, however. They were satisfied that the work produced would serve as a reliable basis for evaluation.

### **Data Collection Procedures**

The researcher and teachers noted Web page download time, task completion success, and strengths and weaknesses in the activities and online materials. On completion of the activities, students and teachers completed a survey questionnaire. The results can be seen in **Appendices B through H**.

The questionnaire rated the site and the activities using several criteria.

- **Aesthetics:** A measure of student and teacher impressions of the attractiveness of the site and the manner in which graphical and textual elements work together.
- **Content:** A measure of student and teacher impressions of the quality of the information provided, including such elements as learning value and the usefulness of tools provided on the site (e.g., glossary).
- **Interest:** A measure of student interest in the subject.
- **Readability:** A measure of student and teacher impressions on the readability of text, including elements such as font size, vocabulary used, paragraph length, ease with information was found, and other visual elements that might have effect.
- **Usability:** A measure of student and teacher impressions of technical aspects of the site, including navigation, download time, and visual elements.

Scored results represented only part of the evaluation however: equally valuable were the comments made by teachers and students. These comments have been included in the results for each Web site.

## **Results of Surveys on the Web Site** **Exploration, the Fur Trade and Hudson's Bay Company**

### **Participants and Setting**

Participating schools were chosen to represent different settings and socio-economic conditions. Two schools were tested:

The first was an inner-city K-6 elementary school. The participants were Grade 5 students two Grade 5/6 split class. Of note:

- Most students in this school were from a lower socio-economic background.
- There were many students with special needs.

- The class was conducted in a spacious computer lab, as there were insufficient computers in the classroom for a whole class activity.
- The computers were relatively slow (200 MHz), with a high-speed connection to the Internet.
- Students had a low level of comfort with Internet navigation as few had computers available at home.

The second school was a suburban K-6 school. Participants were in a Grade 6 class and conducted some of the work in French. Of note:

- Most students in this school were from a higher socio-economic background.
- There was only one student with special needs.
- The class was conducted in a computer lab with limited space between computers, as there were insufficient computers in the classroom for a whole class activity.
- The computers were relatively slow (200 MHz), with a high-speed connection to the Internet.
- Students had a good level of comfort with computers and Internet navigation as most had computers available at home.

Two educators outside the in-class study were also asked to evaluate the site using a modified questionnaire. Their responses have been included.

### **Procedure**

The work conducted was tied to the Grade 6 Ontario Curriculum (1998). A summary of this curriculum can be seen in **Appendix I**. Specific learning expectations/outcomes/objectives were also identified for the curriculum of the different provinces and regions in Canada.

1. Students were introduced to the fur trade in their normal classroom, using maps and other traditional teaching aids. Those in the inner-city school had almost no prior knowledge of the fur trade or its significance. Those in the suburban school were able to identify the significance of the fur trade; some students were able to identify which furs were most valuable.
2. Following this introduction, students were introduced to the Web site, *Exploration, the Fur Trade and Hudson's Bay Company*. They were shown the features of the site and how material was organized.
3. The first activity given to students was a crossword puzzle. Solutions to the puzzle could be obtained by reading the site. An answer key was also available online for teachers. Students worked in pairs or in groups of three for two class periods.
4. The researcher and the classroom teacher observed the students' interactions with the site and made notes on various issues, including students' interest, difficulties accessing pages, and how students found the required information.

5. The second activity was entitled “Building a Trading Post: How to Choose a Site.” Students were required to research the criteria for identifying a good place to build a fur trading post. Following this, they were to use the Web site and other sources to identify what the fort should look like, what goods it should hold, etc.
6. Following completion of the second activity, students and teachers of the inner-city school were asked to rate the site using the survey questionnaire. Students and teachers of the suburban school were asked to rate the site using the survey questionnaire after the first activity. Student work was also reviewed for quality and completion.

### Survey Results

#### Students

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	62 %	Aesthetics	Not Rated
Content	73 %	Content	67 %
Interest	63 %	Interest	61 %
Readability	73 %	Readability	75 %
Usability	65 %	Usability	61 %

#### Teachers

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	94 %	Aesthetics	69 %
Content	92 %	Content	84 %
Interest	97 %	Interest	97 %
Readability	80 %	Readability	69 %
Usability	79 %	Usability	78 %

### Curriculum Relevance of Content

Both the site and the activities were found to be very relevant to the Grade 6 Ontario Curriculum (1998). Teachers saw them as useful tools for the exploration unit in social studies. It was also viewed very positively as an opportunity to integrate cross-curricular learning expectations/objectives, such as language arts (e.g.: writing and reading), design and technology, geography, information and communication technologies (ICT) with the history aspect of the social studies curriculum.

### Aesthetics

Site: Nearly all students rated the appearance of the site as “okay/nice” or higher. More colours and more graphical elements were the most common recommendations. The maps were identified as interesting and useful. Teachers rated aesthetics higher. The difference between the

two may reflect student expectations carried over from youth-oriented sites such as game sites, the fact that the site appealed to a more mature audience, or that teachers find it more useful to have a site with less distracting visual elements.

Activities: The worksheet was seen as plain but appropriate. Teachers were interested in the template of the map of Canada, obtained from the Natural Resources Canada *National Atlas of Canada* site.

## **Content**

Site: No students had any trouble understanding the concepts and most found the vocabulary appropriate or too easy. Some had difficulty using the glossary. Teachers rated the content very highly and found it to be just challenging enough to be an excellent learning tool. One commented that she was very impressed by the breadth and depth of the material available. An index to help searching was recommended.

Activities: Most students found the work to be a balance between easy and challenging. Because of time limitations, few students completed the work. Under normal classroom conditions, students would have been given more time. Nearly all felt they had learned “a bit” or “a lot” from the activities. Teachers were very pleased with the activities, which they found to be good learning tools, with just the right degree of challenge. The crossword was seen as either a good introductory activity (to build vocabulary and general knowledge) or as a good wrap-up activity. It was also noted that the activity was most successful with a teacher available to guide students.

## **Interest**

Site: Nearly all students rated the site as “okay” or higher. Girls were more likely to find the site interesting than boys. The most common recommendations were to introduce more interactive activities and games. Teachers rated students’ interest much higher. One noted that it “couldn’t compare to Dragonball Z” in students’ eyes, but that compared to other resources it held their attention very well.

Activities: Nearly all students rated the activity as “a bit interesting” or higher. Girls were more likely to find the work interesting than boys. Teachers rated students’ interest much higher. This reflects the difference between student engagement for routine classroom work and this activity. Teachers commented on the “complete focus” of students during the lesson, which did not decrease throughout the period. This was attributed to students’ enjoyment of the Internet medium and may possibly be attributed to novelty or to the graphical appeal of the site.

## **Readability**

Site: Readability was rated highly by students. Girls rated readability higher than boys. Neither students nor teachers seemed to be aware that font size on the Internet browser could be changed. Teachers found the readability to be appropriate to the level of their students. Teachers noted that students used a variety of strategies in trying to find information, including skimming and

the use of headings. Important text was presented in bold font on the site; this also helped students' searches for information.

Activities: Readability was rated highly by students. The worksheet was generally found to have a font size that was too small.

## **Usability**

Site: Students found the navigation easy to use. Some students had less experience than others using Web browsers. The web pages usually downloaded in 15 seconds or less, although some pages took over a minute. The network also experienced some slowness at times. Students used various navigational tools when trying to find information, including the glossary, major headings on topic pages, and information from pop-up images and maps. Few students recognized that key words were linked and could provide a definition in a separate, smaller window. Teachers found the navigation and usability appropriate, but commented that a linked index would be a familiar and easy-to-use tool for students. Such an index would be constructed along the lines of one in a conventional print textbook, but with links to pages.

Activities: Students were able to work together to find most of the information they needed. More enthusiastic students turned to outside materials as well, including other Web sites and books from the library. Teachers found the lessons useful, and generally envisioned taking portions of the lessons and modifying them to their own classroom environments.

## **Other Observations**

The researcher and the classroom teachers made various other observations during the course of the work.

- Students were enthusiastic about the work, though they tended to view computers and the Internet as toys and vehicles for entertainment.
- Knowledge on how to use the Internet as a research and learning tool was limited.
- Some students were reluctant to read text, preferring to focus on visual elements on the site.
- One teacher commented that the site had clearly had the input of a teacher with classroom experience.

## **Overall Impressions**

Students were interested in the work, although they tended to understate this. Teachers were very impressed and expressed a desire to see more sites like this developed. They stated that they would recommend the site very strongly to a colleague. The site content was at a level appropriate to the students, although readability could probably be improved even further. With respect to usability, the site operated well in a computer laboratory setting. Some pages were slow to load.

## **Student Work**

In general, the work met or exceeded the expectations for the students' grades. Students had could not finish the crossword in the time originally envisioned (one lesson), but most were able to finish in a second session. The work produced for the design and location of a fur trading post was very good. Students produced:

- Reasons they selected a particular site
- Advantages and disadvantages of the site
- Maps of their fur trading posts
- Inventories of their fur trading posts

In addition, students artificially weathered some of their documents to provide an authentic feel to their work. This demonstrates their interest in and commitment to the activity.

## **How Teachers Would Use the Site**

Teachers made several observations on how they would use the site in their classrooms:

- The fact that the subject of the site is part of the curriculum in nearly all provinces was a very strong point. All indicated that they would refer their students to it as a resource.
- Teachers noted that the site would be useful in more than one subject. For example, tables comparing the value of furs with other items could be used in math, and the design of a trading post could be made 3-dimensional (design and technology).
- Several teachers observed that it would be a very useful tool for research and report writing in either language arts or history/social studies.
- Teachers noted that the lesson plans would be used either in whole or in part, and that they stimulated further ideas for lessons.
- One observed that it would be difficult to use the site in some schools due to the limited number of Internet connections in schools in her area (Halifax, Nova Scotia). This could be overcome using small group work and a rotated schedule.

## **Suggestions for Improvement**

Students identified several areas for improvement:

- More colour and images
- More activities
- More biographies of explorers and important historical figures

Teachers also identified areas for improvement:

- More colour, images and multimedia (sound, motion)
- An index with links to content, as students were inexperienced at finding information on Web sites.

In addition, the researcher noted a need for

- If not an index, then a search tool
- Text to be further adapted to the Web environment in places, through greater use of white space and bullet points
- Links to the glossary to be made more obvious, perhaps with a bold “mouseover” function: this would have key words become bold when the cursor passes over
- Documents/essays/other content to be available in PDF format so that teachers can print information where there are not enough Internet connections

## **Results of Surveys on the Web Site** **Canada in the Making**

### **Participants and Setting**

Participating schools were chosen to represent a different settings and socio-economic conditions. Two schools were tested. The first tested students at the Grade 8 level, and the second at the Grade 8 and Grade 12/OAC level. It was hoped that these two groups would show the range for which the *Canada in the Making* resources would be useful.

The first school was an inner-city K-8 school. Participants were in a Grade 8 class. Of note:

- Most students in this school were from a lower socio-economic background.
- There were many students with special needs.
- The class was conducted in a computer lab with limited space between computers, as there were insufficient computers in the classroom for a whole class activity.
- The computers were mixed: some were relatively slow (200 MHz and higher), others were very new. All had a high-speed connection to the Internet.
- Students were familiar with computers for gaming purposes, but were not as comfortable with them as research tools.

The second school was a suburban Grade 7-OAC high school. Two classes were tested: a Grade 8 history class and a Grade 12/OAC law class. Of note:

- Most students in this school are from a middle-class socio-economic background.
- The material covered is part of the mandatory Grade 8 Ontario Curriculum (1998), but not of the Grade 12 or OAC curriculum. This affected the average motivation of the two groups:
  - Students in the Grade 12/OAC Law class were highly motivated and mature, and required little supervision once the task was explained.
  - Students in the Grade 8 class were less motivated and had a higher proportion of special needs.
- The class was conducted in a computer lab, as there were insufficient computers in the classroom for a whole class activity.

- The computers were relatively slow (around 200 MHz), with high-speed connections to the Internet.
- Grade 12/OAC Students were familiar with computers for all purposes. Students in Grade 8 were familiar were not as comfortable with computers as research tools.

One teacher outside the in-class study was also asked to evaluate the site using a modified questionnaire. Her responses have been included.

### **Procedure**

The work conducted was tied to the Grade 8 Ontario Curriculum for History and the Grades 11 and 12 Ontario Curriculum for Canadian and World Studies (1998). Specific learning expectations/outcomes/objectives are also identified in the teaching resources for the curriculum of the different provinces and regions in Canada.

Grade 8 students had already covered the material. Teachers involved in the study chose the class activity to evaluate their students' learning as well as to introduce them to a new resource. Grade 12/OAC Law students were introduced to the site primarily as a resource for future work.

1. Students were introduced to the Web site, *Canada in the Making*. They were shown the features of the site and how material was organized. In particular, they were introduced to the database of early Canadian texts to test the functionality of this resource in a school setting.
2. The first activity given to students was a crossword puzzle. Solutions to the puzzle could be obtained on the *Canada in the Making* site. An answer key was also available online for teachers. Students worked in pairs or in groups of three for one class period.
3. The researcher and the classroom teacher observed the students' interactions with the site and made notes on various issues, including students' interest, difficulties accessing pages, and how students found the required information.
4. Following completion of the activity, students and teachers were asked to rate the site using the survey questionnaire.
5. Student work was reviewed for quality and completion.

The teacher outside the in-class study completed an activity based on one of the lessons available on the site. This evaluation involved an essay using the site as a resource, as well as other sources. The researcher did not observe the work.

## Survey Results

### Combined Average of Two Levels of Students (Equal Weight)

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	62 %	Aesthetics	71 %
Content	67 %	Content	57 %
Interest	59 %	Interest	54 %
Readability	69 %	Readability	87 %
Usability	60 %	Usability	62 %

### Teachers

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	52 %	Aesthetics	56 %
Content	75 %	Content	72 %
Interest	79 %	Interest	79 %
Readability	61 %	Readability	81 %
Usability	48 %	Usability	67 %

### Curriculum Relevance of Content

Content was found to be very relevant to the Grade 8 history curriculum, dealing with Confederation, and the Grade 7 curriculum, dealing with the pre-Confederation period. It was also relevant to several Grade 11 and 12 courses. Students and teachers in the Grade 12/OAC law course noted that they would be able to use the site in several course. **Appendix I** contains a summary of the courses.

### Aesthetics

Site: Both students and teachers at the Grade 8 level wanted a more colourful and imaginative site design, with more pictures and other graphical and multimedia elements. Students at the Grade 12/OAC level were less critical of the design of the site, focusing more on the content. While some Grade 12/OAC students found the simple design effective, others commented on the need for more graphical and multimedia elements.

Activities: The activities were generally viewed as being presented on typical work sheets. Grade 8 students would have preferred a more attractive design, using images.

### Content

Site: Some Grade 8 students had difficulty with the level of the content, particularly English as Second Language students and those with special needs. However, it was viewed as a good source of information for reports. Grade 12/OAC students found the secondary source material

(essays, summaries, etc.) provided on the site limited, and would have required other sources to supplement the site. Both teachers and students at the Grade 12/OAC level were impressed by the possibility of accessing primary source documents.

Activities: The score of this element was affected by problems accessing primary source documents in the ECO database. This was due to the fact that access to the Government Documents portion of the ECO Web site is by subscription only. Even when students were provided with a password, it was almost impossible for them to access the documents from the links on the *Canada in the Making* Web site. This could be improved by making the collections free to schools and by correcting the links on the *Canada in the Making* Web site.

Scores were also affected by the fact Grade 12/OAC students generally finished very early. Grade 8 students finished in the expected time. As the work was designed for grades 8 and up, this suggests that the work has been developed appropriately.

### **Interest**

Site: There was a difference in interest level between Grade 8 and Grade 12/OAC students. Grade 8 students are required to study Confederation, whereas high school students select their own courses. Perhaps as a result, Grade 8 interest in the subject was significantly lower. The difference could also be due to students at Grade 8 having more difficulty with the material, or to maturity levels.

Activities: The main activities conducted were crosswords. For Grade 8 students, there was an evaluation element. Due to the absence of higher level thinking required, and the fact that the crossword did not accurately represent the activities available on the site (or current teaching practices), student responses cannot serve as an indicator of the quality of the lesson plans available on the site.

### **Readability**

Site: Both students and teachers at all levels suggested that the information on the site could be presented in a more readable format. One teacher suggested greater use of bullet points and other aspects of good Web writing practice (use of headings, bold, and white space, for example). Grade 8 males were more likely to find the text too dense and difficult to read than Grade 8 females. Grade 12/OAC students found the material to be very readable and appropriate to their level.

Activities: The readability of the activities was rated highly. The crossword used was an improved form of the crossword available on-line, however. This suggests that improvements are desirable. The teaching resources featuring student essays and presentations were found to be acceptable.

## **Usability**

Site: The score of this element was affected by problems accessing primary source documents in the ECO database. This was due to the fact that access to the Government Documents portion of the ECO Web site is by subscription only. Even when students were provided with a password, it was almost impossible for them to access the documents from the links on the *Canada in the Making* Web site. This could be improved by making the collections free to schools and by correcting the links on the *Canada in the Making* Web site.

The simple navigation was in general well received. Many students were not aware that there was a glossary on the site, as it was only available on the bottom of all Web pages. One student suggested that it should be one of the main navigation options at the top of each page. Another student suggested that a site map be included to help with navigation.

Activities: The crossword was not affected by problems accessing the database. Students were able to find most of the required information easily at both the Grade 8 and Grade 12/OAC levels.

## **Overall Impressions**

Younger students were more likely to judge the site on its appearance. Despite this, this site was of use to both levels, although in different ways. This suggests that it would be of use to all grades between 8 and 12/OAC. As this subject matter is covered at different grades in different regions and provinces, this is important.

## **Student Work**

Student work was not evaluated for the crossword puzzles, although most students in Grade 8 finished the work in time and nearly all Grade 12/OAC students finished very early. Most of the essays written using the resources on *Canada in the Making* met or exceeded provincial standards, following normal classroom patterns.

## **How Teachers Would Use the Site**

Teachers wanted to use this site as a class resource for research and essay writing, as well as for presentations.

- Grade 8 teachers were primarily interested in the essays and other secondary source information available on the site; the digitized primary sources in the ECO database were viewed as above the level of the students. One felt it would be most useful as a resource for teachers.
- Grade 12/OAC teachers were interested in the access to primary source documents, which would enable them to engage students in higher level thinking skills (e.g., interpretation of documents, extrapolation of relevance of historical documents).

Students in both cases would be introduced to the site in a setting in which all could interact with the site, such as a computer lab. Once started on the activity, students could work individually at home or at school, or in small groups in the classroom.

### **Suggestions for Improvement**

Students identified several areas for improvement:

- More colour, images and multimedia
- More activities and interactivity
- More biographies of important historical figures, and more of information about them
- A site map
- More links to other sites for information
- Make the glossary a main option

Teachers also identified areas for improvement:

- More colour, images and multimedia (sound, motion)
- More fun activities
- Present the content in a Web-friendly manner: use of headings, bullet points, links, less dense text
- Tailor and package content more closely to curriculum and level of the students

In addition, the researcher noted a need for

- The links to primary source documents on the ECO database to be made easy to use and error-free
- Documents/essays/other content to be available in PDF format so that teachers can print information where there are not enough Internet connections

## **Discussion**

### **Gender Differences**

There were no significant differences in the responses based on student gender. Two areas of minor note were in the interest levels of Grade 5 and 6 students, and the assessment of readability at both levels.

- Grade 5 and 6 boys were less likely to view themselves as interested by the material. Teachers disagreed, however.
- Girls were more likely to rate readability factors higher than boys.

## **Limitations of the Study**

There were several limitations to this study. First, students were not always motivated to give well-considered answers. Several surveys had to be discarded when this was obvious. Typical indications included:

- Some students marked “3” on all items in the survey, without comments.
- Some students seemed to mock the survey, writing derogatory comments without relevance to the survey.
- Some students were very critical on certain items without suggestions for improvements.

In addition, some students did not seem to understand that some questions were marked from low to high (with 5 as best score) and others from one extreme to the other (with 3 as best score). These may affect the accuracy of students’ scores and account for some differences between student and teacher scores.

Only four teachers were surveyed for each site. All were very positive about the site; however, it should be noted that there are limited Canadian resources for history on the Internet and that their enthusiasm may reflect this fact.

Finally, the study was conducted in an urban setting, with relatively plentiful (if old) computer resources available to teachers. Connections to the Internet were also high-speed. These advantages will not be shared in all regions of Canada.

Thus, while it is possible to extrapolate the results of their surveys to the general teaching population, it would not have statistical validity. Rather, the value of this study was to:

- identify some ways the sites are and can be used,
- gather the impressions of a group of students and teachers who represent a range of school environments, and
- gather suggestions for improvement and future development.

## **Suggestions for Future Content Development**

Students and teachers were able to provide a range of ideas for the future development of content on the ECO site. They included:

- Content on the War of 1812
- Content on Western expansion
- Writings by Aboriginal authors and content about Aboriginal history and storytelling
- Content on Confederation for younger grades
- More law articles and documents
- Other aspects of Canadian development
- A further deepening and broadening of resources already available

The researcher feels that it may be worthwhile to deepen and broaden the resources already available on the site. This can be done within the existing framework of the *Exploration, the Fur Trade and Hudson's Bay Company* Web site. Due to architecture design flaws, this is probably not possible within the existing framework of *Canada in the Making*. Rather, the site should be redesigned and the existing content (which is relevant and valuable) integrated into a new site design.

### **Lessons for Future Content Development**

There were a number of lessons that should be considered when developing future content or improving existing content.

1. When developing educational content, educators with practical experience should be consulted at all stages of the development process. This ensures that the content will be useful to educators in as many ways as possible.
2. The design of the site should be colourful without being distracting, and include images and other graphical and multimedia elements whenever possible and practical.
3. Navigation should be kept simple and intuitive. A site map is essential, as is easy access to the glossary. An index or search tool would serve as a useful tool.
4. Content should be useful to users at different reading levels and with different needs, as the material may be useful in a wide range of educational situations. This could include writing texts to different reading levels and levels of detail, as well as links to primary source documents and simplified texts for younger readers.
5. Text should be written using the best Web writing practices possible, without sacrificing the quality or flow of the information being presented.
6. Content should be available in different formats, including HTML, plain text and PDF.
7. Primary sources in the ECO database of Early Canadian texts that are referred to from the site should be free to all students and teachers.
8. Links to external resources should be included whenever possible as they enhance the usability of the site as well as student and teacher interest.
9. Interactive elements, such as quizzes and programs allowing users to develop products on the site, should be included whenever possible. An example provided by a teacher was a program in which students could design their own fur trading post online.

These suggestions can serve as guidelines; it is possible that financial or other restrictions would make some options impractical or impossible.

## Conclusion

Both educators and students found both the *Exploration, the Fur Trade and Hudson's Bay Company* and *Canada in the Making* sites useful and interesting. Even considering the limitations of the study, the research indicates that such resources are needed and welcome in Canadian classrooms as a valuable supplement to traditional teaching materials and practices. The teaching resources were found to be useful either as given or as a guide or inspiration for other teaching strategies. To ensure that ECO continues to develop resources that are welcomed by the educational community, it should apply the lessons learned to future projects and to the improvement of existing projects. It should continue its efforts to raise the awareness of educators across Canada about its resources, as they are well received.

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## Appendix A

### Patterns in Provincial Curricula

There are three strands relevant to this research evident in Social Studies and History curricula across Canada. This is changing as Western Canada Protocol for Collaboration in Basic education unites curricula in Western Canada and the Atlantic Provinces Education Foundation does the same in the Maritime Provinces. However, the changes will not significantly alter the general nature of these strands.

- Grades 1 to 3 – families, communities and change;
- Grades 4 to 9 – provincial and Canadian history;
- Grades 10 to 12 – world history and the history of Canada in detail.

#### Exploration and Confederation

The tables below show when these topics are covered in each province.

##### Exploration

Grades 4, 5, 6	Grades 7, 8, 9	Grades 10, 11, 12
British Columbia (4) Alberta (4&5) Saskatchewan (5) NWT and Nunavut (5) Ontario (6) Quebec (5&6) Manitoba (6)	New Brunswick (7&8)* PEI (7&8)* Nova Scotia (7&8)* NWT (9) BC and Yukon (9&10)	BC and Yukon (9&10) Saskatchewan (10&12) Ontario (12) Quebec (10) New Brunswick (12) PEI (11) Nova Scotia (12)

##### Confederation

Grades 4, 5, 6	Grades 7, 8, 9	Grades 10, 11, 12
British Columbia (5) Alberta (5) Saskatchewan (5) Ontario (5) Quebec (4) New Brunswick (5)	Alberta (8) Quebec (7&8) New Brunswick (7&8) PEI (8) Ontario (8) Nova Scotia (8)	British Columbia (10) Saskatchewan (12) Quebec (10) Ontario (12) Nova Scotia (12) PEI (10&11)

\*Grade 7 focuses on pre-Confederation period, Grade 8 on the post-Confederation period.

## Appendix B

### Usability Survey Results for Educational Materials on the *Early Canadiana Online Web Site: Exploration, the Fur Trade and Hudson's Bay Company* (Students Grades 5 and 6)

Students Surveyed: 15 boys, 16 girls, in two classes (different schools)

#### Elements Rated:

- A** Aesthetics: A measure of student impressions of the attractiveness of the site and the manner in which graphical and textual elements work together.
- C** Content: A measure of student impressions of the quality of the information provided, including such elements as learning value and the usefulness of tools provided on the site (e.g., glossary).
- I** Interest: A measure of student interest in the subject.
- R** Readability: A measure of student impressions on the readability of text, including elements such as font size, vocabulary used, paragraph length, ease with information was found, and other visual elements that might have effect.
- U** Usability: A measure of student impressions of technical aspects of the site, including navigation, download time, and visual elements.

Selected comments include comments have been chosen on the following criteria:

- Make a point not obvious from the score of the item
- Make a constructive and useful point
- Reflect different points of view
- Are not repetitive

### On-Screen Writing

#### 1. What did you think of the subject of the Web site?

Rating C, I

	Boring	Okay	Interesting
Boys	3	7	5
Girls	0	5	11
<b>Total</b>	<b>3</b>	<b>12</b>	<b>16</b>
Points Per Student	0	1	2

Average: 1.4 (71% of maximum score possible)

**2. Were there any ideas on the site that you could not understand?**

Rating C, R

	No	A few	Lots
Boys	9	6	0
Girls	12	4	0
<b>Total</b>	<b>21</b>	<b>10</b>	<b>0</b>
Points Per Student	2	1	0

Average: 1.7 (85% of maximum score possible)

**3. How easy was it to find the information you were looking for?**

Rating R, U

	Very hard	Hard	Okay	Easy	Very easy
Boys	0	3	7	2	3
Girls	0	1	10	4	1
<b>Total</b>	<b>0</b>	<b>4</b>	<b>17</b>	<b>6</b>	<b>4</b>
Points Per Student	0	1	2	3	4

Average: 2.3 (58% of maximum score possible)

**4. Were the letters the right size to read easily?**

Rating R, U

	Too small	Just right	Too big
Boys	2	12	1
Girls	1	15	0
<b>Total</b>	<b>3</b>	<b>27</b>	<b>1</b>
Points Per Student	0	2	1

Average: 1.8 (89% of maximum score possible)

**5. The paragraphs were**

Rating R

	Too short	Just right	Too long
Boys	2	11	2
Girls	3	11	2
<b>Total</b>	<b>5</b>	<b>22</b>	<b>4</b>
Points Per Student	1	2	0

Average: 1.6 (79% of maximum score possible)

**6. How much writing was there on each Web page?**

Rating R, U

	Not enough (I could read more)	Just right	Too much (It was hard to read)
Boys	3	7	5
Girls	1	13	2
<b>Total</b>	<b>4</b>	<b>20</b>	<b>7</b>
Points Per Student	1	2	0

Average: 1.4 (71% of maximum score possible)

**7. The words on the site were**

Rating C, R

	Too hard to understand	Just right	Too easy for me
Boys	3	8	4
Girls	3.5	11.5	1
<b>Total</b>	<b>6.5</b>	<b>19.5</b>	<b>5</b>
Points Per Student	0	2	1

Average: 1.4 (71% of maximum score possible)

**8. Was the glossary easy to use and helpful?**

Rating C, U

	No	Sometimes	Yes	(No Glossary)
Boys	2	4	7	2
Girls	0	5	9	2
<b>Total</b>	<b>2</b>	<b>9</b>	<b>16</b>	<b>4</b>
Points Per Student	0	1	2	0

Average: 1.3 (66% of maximum score possible)

**Design and Images**

**9. What do you think about the way the site looks? Pick a word or make one up.**

Rating A

	Ugly/Boring/Too complicated	Okay/Nice	Great/Cool/Interesting
Boys	2	8.5	4.5
Girls	0	8	8
<b>Total</b>	<b>2</b>	<b>16.5</b>	<b>12.5</b>
Points Per Student	0	1	2

Average: 1.3 (65% of maximum score possible)

**10. What do you think of the colours?**

Rating A, R

	Too white/Too black	Perfect or almost perfect	Too many colours or ugly
Boys	3/1	11	0
Girls	3/2	11	0
<b>Total</b>	<b>9</b>	<b>22</b>	<b>0</b>
Points Per Student	1	2	0

Average: 1.7 (85% of maximum score possible)

**11. Are there enough pictures on the site?**

Rating A

	Not enough	Just right	Too many
Boys	11	4	0
Girls	7	9	0
<b>Total</b>	<b>28</b>	<b>11</b>	<b>0</b>
Points Per Student	0	2	1

Average: 0.7 (35% of maximum score possible)

**12. Do the pictures help explain what's in the writing?**

Rating R, U

	Never	Sometimes	Usually	Always
Boys	1	5	5	2
Girls	0	8	7	1
<b>Total</b>	<b>1</b>	<b>13</b>	<b>12</b>	<b>3</b>
Points Per Student	0	1	2	3

Average: 1.5 (50% of maximum score possible)

**13. Did the pages come onto your screen quickly?**

Rating U

	No, never	Sometimes	Usually	Always
Boys	3	5	3	4
Girls	0	7	7	2
<b>Total</b>	<b>3</b>	<b>12</b>	<b>10</b>	<b>6</b>
Points Per Student	0	11	2	3

Average: 1.6 (54% of maximum score possible)

**14. Would you go to the *Exploration, the Fur Trade and Hudson's Bay Company* Web site on your own if you had the chance?**

Rating I

	No	Maybe	Yes
Boys	7	4	4
Girls	1	8	7
<b>Total</b>	<b>8</b>	<b>12</b>	<b>11</b>
Points Per Student	0	1	2

Average: 1.1 (55% of maximum score possible)

**Are there any other ways you think the site can be improved? If you can, please write them here:**

“Do a little more pictures for the paragraphs and a little games.”

“Add more pictures to it and about two activities.”

“I think you could make your website more colourful so it would be attractive.”

“The paragraphs could be shorter and you could make it a bit easier to find.”

“Music, movies.”

“There are no improvements on the web site! It's great!!”

**Work Sheets**

**15. Is the writing big enough to read easily?**

Rating R

	No	Yes
Boys	3	12
Girls	4	12
<b>Total</b>	<b>7</b>	<b>24</b>
Points Per Student	0	1

Average: 0.8 (80% of maximum score possible)

**16. Are the instructions clear and easy to understand?**

Rating R, U

	Never	Sometimes	Usually	Always
Boys	0	7	3	5
Girls	0	2	5	9
<b>Total</b>	<b>0</b>	<b>9</b>	<b>8</b>	<b>14</b>
Points Per Student	0	1	2	3

Average: 2.2 (72% of maximum score possible)

**Can you think of a way to make them better?**

“You could get them a bit bigger.”

“Well I thought they were pretty clear.”

“Explain them so kids can understand.”

“You should use pictures to explain more.”

**17. How hard was the work?**

Rating C, U

	All hard	Mostly hard	Sometimes hard, sometimes easy	Usually easy	Always easy
Boys	1	3	6	5	
Girls	1	2	11	2	
<b>Total</b>	<b>2</b>	<b>5</b>	<b>17</b>	<b>7</b>	
Points Per Student	0	1	2	1	0

Average: 1.5 (74% of maximum score possible)

**18. Was it an interesting activity?**

Rating I

	No	A bit interesting	Yes
Boys	4	7	4
Girls	0	9	7
<b>Total</b>	<b>4</b>	<b>16</b>	<b>11</b>
Points Per Student	0	1	2

Average: 1.2 (61% of maximum score possible)

**19. Did you finish the work in the time you were given?**

Rating C, U

	No, I finished less than half	I finished most of it	Yes, all of it
Boys	4	9	2
Girls	2	10	4
<b>Total</b>	<b>6</b>	<b>19</b>	<b>6</b>
Points Per Student	0	1	2

Average: 1.0 (50% of maximum score possible)

**20. Do you feel like you learned something from the work?**

Rating C

	No	A bit	A lot
Boys	1	8	6
Girls	0	5	11
<b>Total</b>	<b>1</b>	<b>13</b>	<b>17</b>
Points Per Student	0	1	2

Average: 1.5 (76% of maximum score possible)

## 21. Do you want to learn more about this subject now?

Rating 1

	Not really	A bit	Yes
Boys	5	5	5
Girls	1	5	10
<b>Total</b>	<b>6</b>	<b>10</b>	<b>15</b>
Points Per Student	0	1	2

Average: 1.3 (65% of maximum score possible)

## 22. What other Canadian things would you like to see developed on this site?

“All of the cities that were there and can you talk about Cree people.”

“I would like to learn about the Confederation.”

“Confederation, personalities, cities, everything else.”

“Canadian symbols.”

“Important Canadians in different fields.”

“Maybe you could show about more explorers. (Jacques Cartier, Christopher Columbus, John Cabot)”

“I thought the site was very interesting and I think that it’s fine the way it is.”

“Other kinds of trades and other things rather than just ‘the fur trade.’”

“More stuff about where you could locate nearest trading posts.”

“Games, puzzles and more catchy colour, more pictures.”

“Things that are happening now at HBC.”

“I would like to learn about the government, and why the United Kingdom rules Canada.”

## Appendix C

### Usability Survey results for Educational Materials on the *Early Canadiana Online* Web Site: *Exploration, the Fur Trade and Hudson's Bay Company* (Teachers Grades 5 and 6)

Teachers Surveyed: 4

**Elements Rated:**

- A** Aesthetics: A measure of teachers' impressions of the attractiveness of the site and the manner in which graphical and textual elements work together.
- C** Content: A measure of teacher impressions of the quality of the information provided, including such elements as learning value and the usefulness of tools provided on the site (e.g., glossary).
- I** Interest: A measure of the teachers' impression of student interest in the subject.
- R** Readability: A measure of teachers' impressions on the readability of text, including elements such as font size, vocabulary used, paragraph length, ease with information was found, and other visual elements that might have effect.
- U** Usability: A measure of teachers' impressions of technical aspects of the site, including navigation, download time, and visual elements. For lessons, it measures appropriateness for classroom.

Note on scoring results: 1 is scored as 0, 2 as 1, 3 as 2, etc.

### Web Text

**1. Is this material relevant to the curriculum for your class?**

Rating C

No, not at all	1	2	3	4	5	Yes, very
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Average: 5 (100% of maximum score possible)

**Comments:**

- “We need different resources to help students visualize the concepts.”
- “Very relevant to Grade 6 as part of the Exploration unit in Social Studies.”
- ” A good resource for kids studying exploration. Need more like this!”

**2. Rate the difficulty of the concepts introduced for the students in your class (on average)?**

Rating C, R

Too easy or <b>too difficult</b> (choose one)	1	2	3	4	5	Appropriate
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Average: 4 (75% of maximum score possible)

**Examples of inappropriate concepts:**

“French language was for some too advanced. Concepts were in general difficult to understand. However, they were able to easily transfer from French to English.”

“Concepts were not inappropriate – just challenging for the level of my students – they worked well, with guidance.”

“None. Kids understood them well by the end of the activity.”

**3. How easy was it for students to find the information they were looking for?**

Rating R, U

Too easy or <b>too difficult</b> (choose one)	1 2 3 4 5	Appropriate
--	-----------	-------------

Average: 4 (75% of maximum score possible)

**4. Was the font size appropriate to the readers?**

Rating R, U

<b>Too small</b> or too large (choose one)	1 2 3 4 5	Appropriate
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Average: 4.5 (88% of maximum score possible)

**5. Text density: for this age group, paragraphs were**

Rating R

Too short or <b>too long</b> (choose one)	1 2 3 4 5	Appropriate
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Average: 4.3 (83% of maximum score possible)

**Comments:**

“Bulleted form might be better.”

**6. Text density: for this age group, the content on the average page in this site was**

Rating R, U

Too little or <b>too much</b> (choose one)	1 2 3 4 5	Appropriate
---	-----------	-------------

Average: 3.8 (69% of maximum score possible)

**7. Vocabulary was**

Rating C, R

Too simple or <b>too difficult</b> (choose one)	1 2 3 4 5	Appropriate
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Average: 3.8 (69% of maximum score possible)

**Comments:**

“French – difficult (second language), English – appropriate”

“Again – not inappropriate – just challenging, which is not bad.”

“Just challenging enough.”

“The vocabulary used on the Background pages, e.g. History, Stories, etc. was level appropriate, particularly for a moderate to advanced class.”

**8. Did the students find the glossary easy to use and helpful?**

Rating C, U

No, not at all	1	2	3	4	5	Yes, very
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Average: 5 (100% of maximum score possible)

**Comments:**

“An index would be helpful.”

“Very good design. Students didn’t always understand that words could be clicked, though.”

“The glossary, and all links for that matter, were fabulous!”

**Design and Images**

**9. Overall impression:**

Rating A

Very poor	1	2	3	4	5	Very good
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Average: 4.8 (94% of maximum score possible)

**10. What do you think of the colours?**

Rating A, R

Too white or too black	1	2	3	4	5	Appropriate
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Average: 4.8 (94% of maximum score possible)

**11. Are there enough pictures on the site?**

Rating A

Too few or too many (choose one)	1	2	3	4	5	Appropriate
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Average: 4.8 (94% of maximum score possible)

**Comments:**

“Not distracting, but nice.”

**12. Do the pictures illustrate the text appropriately?**

Rating R, U

Never	1	2	3	4	5	Always
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Average: 4.5 (88% of maximum score possible)

**If you can think of any other way to improve the Web site, please write it here:**

“Add sound, films. Add pictures for each word in glossary. Add an actual design program to create a trading post.”

“Add more explorers and more stories. The kids love the stories!”

## Lessons and Teaching Strategies

### Teachers' Guidelines

#### 13. Was the age level identified appropriate for the activity?

Rating C

No, not at all	1	2	3	4	5	Yes, very
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Average: 4.8 (94% of maximum score possible)

#### Comments:

“Fits into curriculum perfectly.”

“Depending on the level of students in the class, these activities may be too demanding for some Grade 5 or 6 classes, e.g. classes with a large number of students with reading difficulties or behavioural problems. However, many of the lesson plans can be modified simply by reducing the amount of work expected from the students and by having the teacher assist students with the research component.”

#### 14. Were the outcomes/expectations/objectives identified in the guidelines appropriate and useful?

Rating C

No, not at all	1	2	3	4	5	Yes, very
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Average: 4.3 (81% of maximum score possible)

#### Comments:

“The only concern that I have is that there weren't as many Social Studies expectations covered in the activities as I would have liked. Also, a grade level would have been helpful with the Social Studies expectations that were listed.”

“They were general enough to be useful.”

#### 15. Was the previous knowledge needed realistic?

Rating C, U

No, not at all	1	2	3	4	5	Yes, perfect
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Average: 4.8 (94% of maximum score possible)

#### 16. Was the homework/extension activity useful?

Rating C

No, not at all	1	2	3	4	5	Yes, very
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Average: 4.5 (88% of maximum score possible)

#### Comments:

“Students needed to realize the impact of the fur trade on all parties.” [Note: reference to extension activity requiring students to imagine roles of different parties in fur trade.]

“Even if I don't use such activities, it's nice to have the ideas.”

**17. Were the suggestions for assessment useful and appropriate?**

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 4.3 (81% of maximum score possible)

**18. Was the level of detail in the guideline appropriate?**

Rating C, U

No: Too much or too little (choose one)	1 2 3 4 5	Appropriate: All teaching concerns covered
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Average: 4.3 (83% of maximum score possible)

**Work Sheet**

**19. Were the activities curriculum-relevant?**

Rating C

No, not at all	1 2 3 4 5	Yes, very
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Average: 4.3 (81% of maximum score possible)

**Comments:**

“I would definitely be able to use aspects of each activity.”

“The lesson plans presented on this site are an excellent tool to teach social studies curriculum using a modern and student centered medium.”

**20. Did the activities accurately reflect classroom practices?**

Rating U

No, not at all	1 2 3 4 5	Yes, almost perfectly
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Average: 4.5 (88% of maximum score possible)

**Comments:**

“The worksheet was very challenging due to lack of vocabulary.”

“The activities reflect ideal classroom practices. The lesson plans are cross curricular and utilize current technology. Some schools may not have access to enough on-line computers to make this project viable. For example, the school I worked in last year did not have internet hookups for the computer lab computers. Each classroom had only one or two computers capable of handling the internet connections. These lesson plans would have been difficult to execute in that school. Some schools (administration, parents) are not supportive of integrated curriculum. I have experienced this in some Nova Scotia schools.”

**21. Aesthetics: What is your overall impression of the worksheet, considering the age levels it is intended for?**

Rating A

Too plain or too distracting (choose one)	1 2 3 4 5	Very appropriate
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Average: 3.8 (69% of maximum score possible)

**Comments:**

“Needs more graphics.”

**22. Was the font size on the worksheets appropriate?**

Rating R, U

Too small or too large (choose one)	1 2 3 4 5	Appropriate
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Average: 3.7 (67% of maximum score possible)

**Comments:**

“Could have been somewhat bigger – easier to work with.”

“Could be a little larger.”

**23. Are the instructions clear and easy to understand (for this age level)?**

Rating C, U

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 4 (75% of maximum score possible)

**Comments:**

“Yes – depending on the independent work level.”

“Some of the vocabulary used in the student worksheets may be too difficult for Grade 5 classes or for students with lower reading levels, e.g. ‘artistic representation’. However, as long as more difficult terms are explained and teachers makes clear what is required of students on these worksheets, younger students should be successful with them.”

**24. Was the work appropriate for this age level?**

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 4.3 (83% of maximum score possible)

**Comments:**

“Somewhat difficult for my level [Grade 5] but no problem if done in parts with assistance.”

**25. Were students engaged by the activity?**

Rating I

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 5 (100% of maximum score possible)

**26. Did students finish the work in the time they were given?**

Rating C, U

Few or none	1 2 3 4 5	Almost all
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Average: 4 (75% of maximum score possible)

**27. Was this a valuable learning activity?**

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 5 (100% of maximum score possible)

**Comments:**

“Kids learned about a great new resource as well as lots of new information!”

**28. Do you want to learn more about this subject now?**

Rating I

Not at all	1 2 3 4 5	Yes, very much
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Average: 4.5 (88% of maximum score possible)

**Hardware and Software**

**29. Did the pages load quickly?**

Rating U

More than 60 seconds	1 2 3 4 5	5 seconds or less
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Average: 3.7 (67% of maximum score possible)

**30. Did you have the software needed to use this site to its maximum potential?**

Rating U

No; too much was needed	1 2 3 4 5	Yes, all
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Average: 4.3 (83% of maximum score possible)

**Comments:**

“I have the software at home, but I’m not sure we have it at school.”

**31. Were the formats for the text useful? (HTML, Word, PDF)**

Rating U

No, not at all	1 2 3 4 5	Yes, perfect
----------------	-----------	--------------

Average: 3.5 (63% of maximum score possible)

**Comments:**

“Again, it was good for at home use, but I’m not sure it would have worked as well at school. Our computers aren’t very up to date.”

**32. How strongly would you recommend this site and its learning activities to a colleague?**

Rating C, I

Not at all	1 2 3 4 5	Very strongly
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Average: 4.8 (94% of maximum score possible)

### **33. What Canadian educational content would you like to see developed on the CIHM site?**

“Information on Native Peoples of Canada, as per the Grade 6 Social Studies curriculum. Information on historical figures in the Canadian government, as per the Grade 5 Social Studies curriculum.”

“Canada and Trading Partners (World Connections), Aboriginal peoples, first explorers to Canada, more in detail, with sound.”

“How about immigration – where from, where to – immigrant stories. Life of pioneers (Canadian) – First Nations – now and then.”

“Explorers and their writings, Aboriginal content.”

#### **Other comments:**

“Thank you. Very Useful. Students enjoy using the computer. Concepts are practiced and assimilated.”

“This website is really great. I will enjoy using it with my class later this year. The teacher’s resources provide good suggested activities. Personally, I would be inclined to use the ideas and add some of my own ideas, as well.”

## Appendix D

### Summary of Results for Surveys: *Exploration, the Fur Trade and Hudson's Bay Company Web Site*

#### Students

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	62 %	Aesthetics	Not Rated
Content	73 %	Content	67 %
Interest	63 %	Interest	61 %
Readability	73 %	Readability	75 %
Usability	65 %	Usability	61 %

#### Teachers

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	94 %	Aesthetics	69 %
Content	92 %	Content	84 %
Interest	97 %	Interest	97 %
Readability	80 %	Readability	69 %
Usability	79 %	Usability	78 %

## Appendix E

### Usability Survey Results for Educational Materials on the *Early Canadiana Online* Web Site: *Canada in the Making* (Students Grade 8)

Students Surveyed: 15 males, 20 females, in two classes (different schools)

#### Elements Rated:

- A** Aesthetics: A measure of student impressions of the attractiveness of the site and the manner in which graphical and textual elements work together.
- C** Content: A measure of student impressions of the quality of the information provided, including such elements as learning value and the usefulness of tools provided on the site (e.g., glossary).
- I** Interest: A measure of student interest in the subject.
- R** Readability: A measure of student impressions on the readability of text, including elements such as font size, vocabulary used, paragraph length, ease with information was found, and other visual elements that might have effect.
- U** Usability: A measure of student impressions of technical aspects of the site, including navigation, download time, and visual elements.

Selected comments include comments have been chosen on the following criteria:

- Make a point not obvious from the score of the item
- Make a constructive and useful point
- Reflect different points of view
- Are not repetitive

#### Web Text

##### 1. Did this material seem to fit what you were learning in class?

Rating C

	No, not at all	1	2	3	4	5	Yes, very
Males		2	0	4	4	5	
Females		0	3	4	7	6	
<b>Total</b>		<b>2</b>	<b>3</b>	<b>8</b>	<b>11</b>	<b>11</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.7

(69% of maximum score possible)

#### Selected comments:

“You didn’t have all the names.”

“We had already learned about what that site was about.”

**2. Did you find the ideas and information too easy or too hard to understand?**

Rating C, R

	Too easy	1	2	3	4	5	Too difficult
Males		3	1	7	4	0	
Females		0	3	12	0	5	
<b>Total</b>		<b>3</b>	<b>4</b>	<b>19</b>	<b>4</b>	<b>5</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.6  
(66% of maximum score possible)

**Examples:**

“It shows you all the things and you can reach the information too easy.”

“[It was hard] to find the co-premier and prime ministers.”

“The Quebec Act.”

“I’m an ESL [English as Second Language] student. It’s really difficult to understand.”

**3. How easy was it to find the information you were looking for?**

Rating R, U

	Very easy	1	2	3	4	5	Too difficult
Males		2	1	5	5	2	
Females		3	2	7	3	5	
<b>Total</b>		<b>5</b>	<b>3</b>	<b>12</b>	<b>8</b>	<b>7</b>	
Points Per Student		4	3	2	1	0	

Average points out of 4: 1.7  
(44% of maximum score possible)

**Selected comments:**

“There was lots of information but personally I found it can be better organized so things can be found faster.”

**4. Was the font size all right?**

Rating R, U

	Too small	1	2	3	4	5	Too large
Males		1	1	8	1	4	
Females		1	2	10	7	0	
<b>Total</b>		<b>2</b>	<b>3</b>	<b>18</b>	<b>8</b>	<b>4</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.7  
(67% of maximum score possible)

**5. Text density: paragraphs were**

Rating R

	Too short	1	2	3	4	5	Too long
Males		0	0	2	8	5	
Females		2	0	13	3	2	
<b>Total</b>		<b>2</b>	<b>0</b>	<b>15</b>	<b>11</b>	<b>7</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.3

(59% of maximum score possible)

**6. Text density: the text on the average page in this site was**

Rating R, U

	Too little	1	2	3	4	5	Too much
Males		0	1	7	4	3	
Females		0	5	9	6	0	
<b>Total</b>		<b>0</b>	<b>6</b>	<b>16</b>	<b>10</b>	<b>3</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.7

(69% of maximum score possible)

**7. Vocabulary was**

Rating C, R

	Too easy	1	2	3	4	5	Too hard
Males		1	3	7	3	1	
Females		0	4	13	2	1	
<b>Total</b>		<b>1</b>	<b>7</b>	<b>20</b>	<b>5</b>	<b>2</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 3.0

(74% of maximum score possible)

**8. If there was a glossary, did you find it easy to use and helpful? (no glossary)**

Rating C, U

	No, not at all	1	2	3	4	5	Yes, very
Males		3	1	4	4	3	
Females		2	2	7	6	3	
<b>Total</b>		<b>5</b>	<b>3</b>	<b>11</b>	<b>10</b>	<b>6</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.3

(56% of maximum score possible)

## Design and Images

### 9. Overall impression:

Rating A

	Very poor	1	2	3	4	5	Very good
Males		1	3	4	4	3	
Females		0	5	5	10	0	
<b>Total</b>		<b>1</b>	<b>8</b>	<b>9</b>	<b>14</b>	<b>3</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.3

(57% of maximum score possible)

### Selected comments:

“Main page is good.”

### 10. What do you think of the colours?

Rating A, R

	Too plain	1	2	3	4	5	Too colourful
Males		4	1	5	4	1	
Females		3	11	5	1	0	
<b>Total</b>		<b>7</b>	<b>12</b>	<b>10</b>	<b>5</b>	<b>1</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.1

(52% of maximum score possible)

### Selected comments:

“Less red and more green”

“It was enough colour for the subject.”

### 11. Are there enough pictures on the site?

Rating A

	Too few	1	2	3	4	5	Too many
Males		4	3	4	3	1	
Females		6	6	8	0	0	
<b>Total</b>		<b>10</b>	<b>9</b>	<b>12</b>	<b>3</b>	<b>1</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.1

(51% of maximum score possible)

**12. Do the pictures and maps help explain the text?**

Rating R, U

	Never	1	2	3	4	5	Always
Males		2	3	4	2	4	
Females		0	5	7	8	0	
<b>Total</b>		<b>2</b>	<b>8</b>	<b>11</b>	<b>10</b>	<b>4</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.2

(54% of maximum score possible)

**If you can think of any other way to improve the Web site, please write it here:**

“Biographies of prime ministers.”

“Have a colourful background and make the font colourful.”

“Put some funner games on the site and make it fun and entertaining to learn.”

“You should add some games.”

“More pictures, Website map.”

“[Show] more places to go to get more information.”

**Work Sheet**

**13. Did the activities seem to work in your classroom, or were there problems?**

Rating C, U

	Lots of problems	1	2	3	4	5	Worked almost perfectly
Males		0	4	4	4	3	
Females		0	2	12	4	2	
<b>Total</b>		<b>0</b>	<b>6</b>	<b>16</b>	<b>8</b>	<b>5</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.3

(59% of maximum score possible)

**14. Aesthetics: What is your overall impression of the appearance of the worksheet?**

Rating A

	Too plain	1	2	3	4	5	Too distracting
Males		2	0	7	4	2	
Females		2	2	13	3	0	
<b>Total</b>		<b>4</b>	<b>2</b>	<b>20</b>	<b>7</b>	<b>2</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.8

(70% of maximum score possible)

**Selected comments:**

“It was a regular worksheet.”

“More pictures are needed.”

**15. Was the font size on the worksheets all right?**

Rating R, U

	Too small	1	2	3	4	5	Too large
Males		1	1	11	1	1	
Females		0	0	15	5	0	
<b>Total</b>		<b>1</b>	<b>1</b>	<b>26</b>	<b>6</b>	<b>1</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 3.4

(84% of maximum score possible)

**16. Are the instructions clear and easy to understand?**

Rating C, U

	No, not at all	1	2	3	4	5	Yes, very
Males		2	0	6	2	5	
Females		2	3	8	5	2	
<b>Total</b>		<b>4</b>	<b>3</b>	<b>14</b>	<b>7</b>	<b>7</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.3

(57% of maximum score possible)

**17. Was the work too hard or too easy?**

Rating C, U

	Much too hard	1	2	3	4	5	Much too easy
Males		1	3	5	5	1	
Females		3	0	13	2	2	
<b>Total</b>		<b>4</b>	<b>3</b>	<b>18</b>	<b>7</b>	<b>3</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.6

(66% of maximum score possible)

**Selected comments:**

"Less work, more fun."

**18. Was it interesting?**

Rating I

	No, not at all	1	2	3	4	5	Yes, very
Males		4	0	5	3	3	
Females		11	1	6	2	0	
<b>Total</b>		<b>15</b>	<b>1</b>	<b>11</b>	<b>5</b>	<b>3</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 1.4

(35% of maximum score possible)

**19. Did you finish?**

Rating C, U

	Did less than half of work	1	2	3	4	5	Finished very early
Males		2	1	5	6	1	
Females		2	2	6	3	7	
<b>Total</b>		<b>4</b>	<b>3</b>	<b>11</b>	<b>9</b>	<b>8</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 1.9

(49% of maximum score possible)

**20. Was this a valuable learning activity?**

Rating C

	No, not at all	1	2	3	4	5	Yes, very
Males		4	3	2	4	2	
Females		6	3	7	3	1	
<b>Total</b>		<b>10</b>	<b>6</b>	<b>9</b>	<b>7</b>	<b>3</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 1.6

(41% of maximum score possible)

**21. Do you want to learn more about this subject now?**

Rating I

	Not at all	1	2	3	4	5	Yes, very much
Males		4	2	5	2	2	
Females		9	3	7	1	0	
<b>Total</b>		<b>13</b>	<b>5</b>	<b>12</b>	<b>3</b>	<b>2</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 1.3

(33% of maximum score possible)

**Hardware and Software****22. Did the pages load quickly?**

Rating U

	More than 60 seconds	1	2	3	4	5	5 seconds or less
Males		2	3	5	3	2	
Females		3	0	6	3	8	
<b>Total</b>		<b>5</b>	<b>3</b>	<b>11</b>	<b>6</b>	<b>10</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.4

(59% of maximum score possible)

**23. Did you have the software needed to use this site to its maximum potential?**

Rating U

	No; too much was needed	1	2	3	4	5	Yes, all
Males		3	0	8	1	3	
Females		4	1	7	1	7	
<b>Total</b>		<b>7</b>	<b>1</b>	<b>15</b>	<b>2</b>	<b>10</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.2

(55% of maximum score possible)

**Selected comments:**

“My computer was really slow.”

**24. How strongly would you recommend this site to another student trying to learn about this?**

Rating C, I

	Not at all	1	2	3	4	5	Very strongly
Males		3	0	3	4	4	
Females		2	0	10	6	2	
<b>Total</b>		<b>5</b>	<b>0</b>	<b>13</b>	<b>10</b>	<b>6</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.3

(57% of maximum score possible)

**Selected comments:**

“[I wouldn’t] unless he likes to work hard and read a lot.”

“It would be helpful for an essay.”

**25. What Canadian educational content would you like to see developed on the Early Canadiana Online site?**

“Stuff about 1812.”

“[Information about] Ontario.”

**Other selected comments:**

“You should put more games and movies and link words [to glossary].”

“More pictures and more information on the people.”

## Appendix F

### Usability Survey Results for Educational Materials on the *Early Canadiana Online* Web Site: *Canada in the Making* (Students Grade 12/OAC)

**Students Surveyed:** 5 males, 14 females

**Elements Rated:**

- A** Aesthetics: A measure of student impressions of the attractiveness of the site and the manner in which graphical and textual elements work together.
- C** Content: A measure of student impressions of the quality of the information provided, including such elements as learning value and the usefulness of tools provided on the site (e.g., glossary).
- I** Interest: A measure of student interest in the subject.
- R** Readability: A measure of student impressions on the readability of text, including elements such as font size, vocabulary used, paragraph length, ease with information was found, and other visual elements that might have effect.
- U** Usability: A measure of student impressions of technical aspects of the site, including navigation, download time, and visual elements.

Selected comments include comments have been chosen on the following criteria:

- Make a point not obvious from the score of the item
- Make a constructive and useful point
- Reflect different points of view
- Are not repetitive

### Web Text

**1. Did this material seem to fit what you were learning in class?**

Rating C

	No, not at all	1	2	3	4	5	Yes, very
Males		0	0	1	4	0	
Females		1	0	3	5	5	
<b>Total</b>		<b>1</b>	<b>0</b>	<b>4</b>	<b>9</b>	<b>5</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.9

(72% of maximum score possible)

**Selected comments:**

“It has both law and history so I am looking at a lot of these things.”

“I found the material more for history than law, but had some [useful] concepts in it.”

“It fits exactly what I am learning in history right now.”

**2. Did you find the ideas and information too easy or too hard to understand?**

Rating C, R

	Too easy	1	2	3	4	5	Too difficult
Males		0	1	2	1	1	
Females		2	3	8	1	0	
<b>Total</b>		<b>2</b>	<b>4</b>	<b>10</b>	<b>2</b>	<b>1</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.7

(68% of maximum score possible)

**Examples:**

“Not enough to be able to use for help in a report.” [secondary source information]

“They were good I thought every once in a while there would be a difficult word.”

“...The biographies...were very clear and easy to understand.”

“Biographies: John A. Macdonald is very easy to understand. The information is complete and great to use for a project.”

**3. How easy was it to find the information you were looking for?**

Rating R, U

	Very easy	1	2	3	4	5	Too difficult
Males		0	2	2	1	0	
Females		1	5	7	1	0	
<b>Total</b>		<b>1</b>	<b>7</b>	<b>9</b>	<b>2</b>	<b>0</b>	
Points Per Student		4	3	2	1	0	

Average points out of 4: 2.4

(59% of maximum score possible)

**4. Was the font size all right?**

Rating R, U

	Too small	1	2	3	4	5	Too large
Males		0	0	4	0	1	
Females		0	1	12	1	0	
<b>Total</b>		<b>0</b>	<b>1</b>	<b>16</b>	<b>1</b>	<b>1</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 3.6 (89% of maximum score possible)

**5. Text density: paragraphs were**

Rating R

	Too short	1	2	3	4	5	Too long
Males		1	1	3	0	0	
Females		2	1	10	1	0	
<b>Total</b>		<b>3</b>	<b>2</b>	<b>13</b>	<b>1</b>	<b>0</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.9

(74% of maximum score possible)

**6. Text density: the text on the average page in this site was**

Rating R, U

	Too little	1	2	3	4	5	Too much
Males		0	2	3	0	0	
Females		0	2	11	1	0	
<b>Total</b>		<b>0</b>	<b>4</b>	<b>14</b>	<b>1</b>	<b>0</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 3.4

(87% of maximum score possible)

**7. Vocabulary was**

Rating C, R

	Too easy	1	2	3	4	5	Too hard
Males		0	0	4	0	1	
Females		0	1	12	1	0	
<b>Total</b>		<b>0</b>	<b>1</b>	<b>16</b>	<b>1</b>	<b>0</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 3.6

(89% of maximum score possible)

**Selected comments:**

“I know the vocab because of the courses I am taking.”

“There needs to be more information, especially on the links.”

“Good vocab, some words a bit confusing.”

“I think the vocabulary is suitable for high school students but not elementary.”

**8. If there was a glossary, did you find it easy to use and helpful? (no glossary)**

Rating C, U

	No, not at all	1	2	3	4	5	Yes, very
Males		2	0	1	1	1	
Females		3	1	4	1	4	
<b>Total</b>		<b>5</b>	<b>1</b>	<b>5</b>	<b>2</b>	<b>5</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2

(50% of maximum score possible)

**Selected comments:**

“It gives brief information which is good, but I think a link to the text or something [like that] would be great.”

“Very easy to use, simple terminology.”

“We did not use it.”

“It was easy to use, but did not give complete definitions.”

## Design and Images

### 9. Overall impression:

Rating A

	Very poor	1	2	3	4	5	Very good
Males		0	0	1	3	1	
Females		0	2	4	5	3	
<b>Total</b>		<b>0</b>	<b>2</b>	<b>5</b>	<b>8</b>	<b>4</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.7

(68% of maximum score possible)

#### Selected comments:

“I like the colour of the website with the leaf in the corner.”

“It was a good site for basic information, but it needs more links.”

“Well organized and good to look at.”

“Not much pictorial representation.”

“Links to other website did not work, logins didn’t work, etc. (internal errors)”

“Neat and tidy, not too distracting.”

“I like how it has pictures about all the past governor generals, ministers, etc.”

### 10. What do you think of the colours?

Rating A, R

	Too plain	1	2	3	4	5	Too colourful
Males		0	1	3	0	1	
Females		1	2	9	1	1	
<b>Total</b>		<b>1</b>	<b>3</b>	<b>12</b>	<b>1</b>	<b>2</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.9

(74% of maximum score possible)

#### Selected comments:

“It’s slightly too plain, maybe adding a background that isn’t too distracting would help.”

“I find it very Canadian and very attractive.”

“The best colour to use on a website.”

### 11. Are there enough pictures on the site?

Rating A

	Too few	1	2	3	4	5	Too many
Males		1	2	2	0	0	
Females		1	5	7	1	0	
<b>Total</b>		<b>2</b>	<b>7</b>	<b>9</b>	<b>1</b>	<b>0</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.7

(68% of maximum score possible)

**12. Do the pictures and maps help explain the text?**

Rating R, U

	Never	1	2	3	4	5	Always
Males		0	0	2	3	0	
Females		0	1	3	6	4	
<b>Total</b>		<b>0</b>	<b>1</b>	<b>5</b>	<b>9</b>	<b>4</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.8

(71% of maximum score possible)

**If you can think of any other way to improve the Web site, please write it here:**

“I would personally make it slightly more colourful and maybe add a search option”

“Maybe some Macromedia Flash. A website run by flash is always better.”

“More activities or games in the activities section.”

“More pictures and maps. Add more information to the glossary and a search engine.”

**Work Sheet**

**13. Did the activities seem to work in your classroom, or were there problems?**

Rating C, U

	Lots of problems	1	2	3	4	5	Worked almost perfectly
Males		2	0	2	1	0	
Females		1	5	2	5	1	
<b>Total</b>		<b>3</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>1</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 1.8

(46% of maximum score possible)

**Selected comments:**

“Our computer would not allow us to access to some areas; the cross word was fairly easy to understand.”

“Had a little trouble getting into certain parts of the web site.”

“Some clues were a bit vague to me. You would need some knowledge to find the answer.”

**14. Aesthetics: What is your overall impression of the appearance of the worksheet?**

Rating A

	Too plain	1	2	3	4	5	Too distracting
Males		0	0	4	0	1	
Females		1	2	7	3	1	
<b>Total</b>		<b>1</b>	<b>2</b>	<b>11</b>	<b>3</b>	<b>2</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 2.8  
(71% of maximum score possible)

**Selected comments:**

“I like the unified layout.”

“Colours, pictures, etc. need to be added.”

**15. Was the font size on the worksheets all right?**

Rating R, U

	Too small	1	2	3	4	5	Too large
Males		0	0	4	0	1	
Females		0	0	12	2	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>16</b>	<b>2</b>	<b>1</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 3.6  
(89% of maximum score possible)

**16. Are the instructions clear and easy to understand?**

Rating C, U

	No, not at all	1	2	3	4	5	Yes, very
Males		0	0	1	2	2	
Females		0	1	6	1	6	
<b>Total</b>		<b>0</b>	<b>1</b>	<b>7</b>	<b>3</b>	<b>8</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.9  
(74% of maximum score possible)

**Selected comments:**

“They are pretty much clear except for the question on examples.”

**17. Was the work too hard or too easy?**

Rating C, U

	Much too hard	1	2	3	4	5	Much too easy
Males		0	0	3	2	0	
Females		0	0	10	3	1	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>13</b>	<b>5</b>	<b>1</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 3.3

(82% of maximum score possible)

**Selected comments:**

“I found it very easy once I found out what to look for (the links).”

**18. Was it interesting?**

Rating I

	No, not at all	1	2	3	4	5	Yes, very
Males		0	0	3	2	0	
Females		0	3	5	3	3	
<b>Total</b>		<b>0</b>	<b>3</b>	<b>8</b>	<b>5</b>	<b>3</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.4

(61% of maximum score possible)

**19. Did you finish?**

Rating C, U

	Did less than half of work	1	2	3	4	5	Finished very early
Males		0	0	1	1	3	
Females		0	0	1	4	9	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>12</b>	
Points Per Student		0	2	4	2	0	

Average points out of 4: 0.9

(24% of maximum score possible)

## 20. Was this a valuable learning activity?

Rating C

	No, not at all	1	2	3	4	5	Yes, very
Males		0	0	1	3	1	
Females		0	1	6	2	5	
<b>Total</b>		<b>0</b>	<b>1</b>	<b>7</b>	<b>5</b>	<b>6</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.8

(71% of maximum score possible)

### Selected comments:

“It is an interesting learning tool.”

“I think it was, it gives us another resource of information.”

“There was no real learning achieved, all the info required was highlighted. You could guess the names on the crossword by counting the letters.”

## 21. Do you want to learn more about this subject now?

Rating I

	Not at all	1	2	3	4	5	Yes, very much
Males		1	0	3	1	0	
Females		1	2	8	0	3	
<b>Total</b>		<b>2</b>	<b>2</b>	<b>11</b>	<b>1</b>	<b>3</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 2.6

(66% of maximum score possible)

## Hardware and Software

## 22. Did the pages load quickly?

Rating U

	More than 60 seconds	1	2	3	4	5	5 seconds or less
Males		1	0	1	1	2	
Females		3	3	5	2	1	
<b>Total</b>		<b>4</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>3</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 1.9

(47% of maximum score possible)

**23. Did you have the software needed to use this site to its maximum potential?**

Rating U

	No; too much was needed	1	2	3	4	5	Yes, all
Males		1	1	0	1	2	
Females		1	6	6	0	1	
<b>Total</b>		<b>2</b>	<b>7</b>	<b>6</b>	<b>1</b>	<b>3</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 1.8

(45% of maximum score possible)

**Selected comments:**

“We could not access some areas; internal errors occurred.”

“The computers are old.”

“The software is basic.”

“Even with the slow computers in school it loaded fast.”

**24. How strongly would you recommend this site to another student trying to learn about this?**

Rating C, I

	Not at all	1	2	3	4	5	Very strongly
Males		0	0	0	0	5	
Females		0	1	3	4	6	
<b>Total</b>		<b>0</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>11</b>	
Points Per Student		0	1	2	3	4	

Average points out of 4: 3.3

(83% of maximum score possible)

**Selected comments:**

“Excellent site, lots of info.”

“I’ll tell my friends in Canadian history.”

“It gives simple explanations that anyone can understand.”

**25. What Canadian educational content would you like to see developed on the Early Canadiana Online site?**

“More law articles, but besides that, it’s fine.”

“Whatever helps us ‘students.’”

“More law information (i.e: Charter, other documents), current events reflecting what happened in the past.”

**Other selected comments:**

“Glossary is hard to find because it’s not a main option.”

“I think this is a good resource for H.S. students. I mean it’s nice to see more Canadian sites than U.S.A. sites. I like it.”

“More information must be added to the biographies, acts, treaties, etc. This site would not help a senior student find any useful information.”

“Overall, the site was fairly well put together. There are some areas that need to be revised, or added to in order to make it better.”

“Very good site. I plan to use it.”

## Appendix G

### Usability Survey results for Educational Materials on the *Early Canadiana Online* Web Site: *Canada in the Making* (Teachers Grades 8 and 12/OAC)

Teachers Surveyed: 4

#### Elements Rated:

**A** Aesthetics: A measure of teachers' impressions of the attractiveness of the site and the manner in which graphical and textual elements work together.

**C** Content: A measure of teacher impressions of the quality of the information provided, including such elements as learning value and the usefulness of tools provided on the site (e.g., glossary).

**I** Interest: A measure of the teachers' impression of student interest in the subject.

**R** Readability: A measure of teachers' impressions on the readability of text, including elements such as font size, vocabulary used, paragraph length, ease with information was found, and other visual elements that might have effect.

**U** Usability: A measure of teachers' impressions of technical aspects of the site, including navigation, download time, and visual elements. For lessons, it measures appropriateness for classroom.

Note on scoring results: 1 is scored as 0, 2 as 1, 3 as 2, etc.

### Web Text

#### 1. Is this material relevant to the curriculum for your class?

Rating C

No, not at all	1 2 3 4 5	Yes, very
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Average: 4.8 (94% of maximum score possible)

#### Comments:

“Good for both Canadian History and Canadian Law.” [Grade 12]

“Great for projects.” [Grade 8]

“I found it general enough to cover most topics.” [Grade 8]

#### 2. Rate the difficulty of the concepts introduced for the students in your class (on average)?

Rating C, R

Too easy or too difficult (choose one)	1 2 3 4 5	Appropriate
---	-----------	-------------

Average: 4 (75% of maximum score possible)

**Examples of inappropriate concepts:**

“Difficult when specific search is not provided, i.e: a particular historical figure.” [Grade 8]

“Several students did not even try. They wanted the answers handed to them.” [Grade 8]

**3. How easy was it for students to find the information they were looking for?**

Rating R, U

Too easy or too difficult (choose one)	1 2 3 4 5	Appropriate
---	-----------	-------------

Average: 3 (50% of maximum score possible)

**4. Was the font size appropriate to the readers?**

Rating R, U

Too small or too large (choose one)	1 2 3 4 5	Appropriate
--	-----------	-------------

Average: 4.3 (81% of maximum score possible)

**5. Text density: for this age group, paragraphs were**

Rating R

Too short or too long (choose one)	1 2 3 4 5	Appropriate
---------------------------------------	-----------	-------------

Average: 3.5 (63% of maximum score possible)

**6. Text density: for this age group, the content on the average page in this site was**

Rating R, U

Too little or too much (choose one)	1 2 3 4 5	Appropriate
--	-----------	-------------

Average: 3 (50% of maximum score possible)

**7. Vocabulary was**

Rating C, R

Too simple or too difficult (choose one)	1 2 3 4 5	Appropriate
---	-----------	-------------

Average: 4 (75% of maximum score possible)

**Comments:**

“Students understood the material.” [Grade 8]

“Both the questionnaire and the crossword questions were difficult to understand. For some students the website was above their language level.” [Grade 8]

**8. Did the students find the glossary easy to use and helpful?**

Rating C, U

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 3 (50% of maximum score possible)

**Comments:**

“Most were not aware of the glossary.” [Grade 8]

## Design and Images

### 9. Overall impression:

Rating A

Very poor	1 2 3 4 5	Very good
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Average: 3.8 (69% of maximum score possible)

#### Comments:

“This site needs more excitement for students. More pictures, graphics and colour!” [Grade 8]

“I found it had enough information without being ‘cluttered’ on each page.” [Grade 12]

“Formatting is sloppy in places. Could use more ‘pizzazz’.” [Grade 12]

### 10. What do you think of the colours?

Rating A, R

Too white or too black (choose one)	1 2 3 4 5	Appropriate
--	-----------	-------------

Average: 3 (50% of maximum score possible)

#### Comments:

“The colours are not too hard to read (or harsh on the eyes!).” [Grade 12]

### 11. Are there enough pictures on the site?

Rating A

Too few or too many (choose one)	1 2 3 4 5	Appropriate
-------------------------------------	-----------	-------------

Average: 2.5 (38% of maximum score possible)

### 12. Do the pictures illustrate the text appropriately?

Rating R, U

Never	1 2 3 4 5	Always
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Average: 2.8 (44% of maximum score possible)

#### If you can think of any other way to improve the Web site, please write it here:

“Maybe change the format of the text into point form to appear shorter to students, who seemed a little overwhelmed with long paragraphs.” [Grade 8]

“Add more contextual content and add more primary source documents. Package the material better.” [Grade 12]

“Get some students and/or teachers to help! Be sure that the curriculum is covered for your target age group.” [Grade 8]

## Lessons and Teaching Strategies

### Teachers' Guidelines

#### 13. Was the age level identified appropriate for the activity?

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 4 (75% of maximum score possible)

#### 14. Were the outcomes/expectations/objectives identified in the guidelines appropriate and useful?

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 3 (50% of maximum score possible)

#### Comments:

“They seemed Ontario-centric.” [Grade 12]

#### 15. Was the previous knowledge needed realistic?

Rating C, U

No, not at all	1 2 3 4 5	Yes, perfect
----------------	-----------	--------------

Average: 4 (75% of maximum score possible)

#### Comments:

“They have a fairly solid grounding by this point.” [Grade 12]

#### 16. Was the homework/extension activity useful?

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 4 (75% of maximum score possible)

#### 17. Were the suggestions for assessment useful and appropriate?

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 4 (75% of maximum score possible)

#### Comments:

“I prefer to make my own rubrics, but this one was all right.” [Grade 12]

#### 18. Was the level of detail in the guideline appropriate?

Rating C, U

No: <b>Too much</b> or too little (choose one)	1 2 3 4 5	Appropriate: All teaching concerns covered
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Average: 4 (75% of maximum score possible)

### Work Sheet

**19. Were the activities curriculum-relevant?**

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 4.3 (83% of maximum score possible)

**Comments:**

“This fit for both my law and history courses.” [Grade 12]

“Some of it was a little too detailed.” [Grade 8]

“Also good for language arts.”

**20. Did the activities accurately reflect classroom practices?**

Rating U

No, not at all	1 2 3 4 5	Yes, almost perfectly
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Average: 3.3 (56% of maximum score possible)

**Comments:**

“Yes. I like the group activity that was built in the marking scheme.” [Grade 12]

“The language was above some of the class.” [Grade 8]

**21. Aesthetics: What is your overall impression of the worksheet, considering the age levels it is intended for?**

Rating A

Too plain or too distracting (choose one)	1 2 3 4 5	Very appropriate
--	-----------	------------------

Average: 3.3 (56% of maximum score possible)

“Not sure how a crossword could appear less plain.” [Grade 8]

**22. Was the font size on the worksheets appropriate?**

Rating R, U

Too small or too large (choose one)	1 2 3 4 5	Appropriate
--	-----------	-------------

Average: 4.3 (81% of maximum score possible)

**23. Are the instructions clear and easy to understand (for this age level)?**

Rating C, U

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 4.3 (81% of maximum score possible)

**Comments:**

“Sometimes a bit abstract.” [Grade 12]

**24. Was the work appropriate for this age level?**

Rating C

No, not at all	1 2 3 4 5	Yes, very
----------------	-----------	-----------

Average: 3.5 (63% of maximum score possible)

**Comments:**

“It was a little hard for some of my students.” [Grade 8]

“A little difficult without assistance.” [Grade 8]

**25. Were students engaged by the activity?**

Rating I

No, not at all	1	2	3	4	5	Yes, very
----------------	---	---	---	---	---	-----------

Average: 3.7 (67% of maximum score possible)

**26. Did students finish the work in the time they were given?**

Rating C, U

Few or none	1	2	3	4	5	Almost all
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Average: 3 (50% of maximum score possible)

**27. Was this a valuable learning activity?**

Rating C

No, not at all	1	2	3	4	5	Yes, very
----------------	---	---	---	---	---	-----------

Average: 4.3 (83% of maximum score possible)

**Comments:**

“As an introduction to both myself and the students, I feel.” [Grade 12]

“Students realize they could use info for future projects/myself – future projects and assignments.” [Grade 8]

**28. Do you want to learn more about this subject now?**

Rating I

Not at all	1	2	3	4	5	Yes, very much
------------	---	---	---	---	---	----------------

Average: 4.5 (88% of maximum score possible)

**Hardware and Software**

**29. Did the pages load quickly?**

Rating U

More than 60 seconds	1	2	3	4	5	5 seconds or less
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Average: 1.5 (13% of maximum score possible)

**30. Did you have the software needed to use this site to its maximum potential?**

Rating U

No; too much was needed	1	2	3	4	5	Yes, all
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Average: 3.5 (63% of maximum score possible)

**Comments:**

“This is more of a hardware problem at your end, but it was difficult to view some primary sources. They could be very slow to load.” [Grade 12]

**31. Were the formats for the text useful? (HTML, Word, PDF)**

Rating U

No, not at all	1	2	3	4	5	Yes, perfect
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Average: 3.5 (63% of maximum score possible)

**Comments:**

“Consider a PDF format for the whole document in the database instead of just page by page.”  
[Grade 12]

**32. How strongly would you recommend this site and its learning activities to a colleague?**

Rating C, I

Not at all	1	2	3	4	5	Very strongly
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Average: 4.3 (83% of maximum score possible)

**Comments:**

“This resource looks like a valuable resource even if the computer room is not used (lesson ideas, resources, etc.).” [Grade 12]

“More as a resource for teachers.” [Grade 8]

**33. What Canadian educational content would you like to see developed on the CIHM site?**

“Directorate of History for Department of National Defence has lots of good stuff!” [Grade 12]

“Western Expansion – later Confederation years.” [Grade 8]

“Closer ties to the curriculum.” [Grade 8]

“Writings by Aboriginal authors. Also, the database is very large. Content selected and packaged for students and teachers would be very helpful.” [Grade 12]

**Other comments:**

“The site might appeal to students more if there were more fun activities. The website does seem to be a great resource for both students and teachers.” [Grade 8]

## Appendix H

### Summary of Results for Surveys: *Canada in the Making Web Site*

#### Grade 8 Students

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	53 %	Aesthetics	70 %
Content	64 %	Content	54 %
Interest	45 %	Interest	46 %
Readability	61 %	Readability	84 %
Usability	56 %	Usability	63 %

#### Grade 12/OAC Students

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	70 %	Aesthetics	71 %
Content	70 %	Content	60 %
Interest	72 %	Interest	61 %
Readability	76 %	Readability	89 %
Usability	64 %	Usability	60 %

#### Combined Average of Two Levels of Students (Equal Weight)

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	62 %	Aesthetics	71 %
Content	67 %	Content	57 %
Interest	59 %	Interest	54 %
Readability	69 %	Readability	87 %
Usability	60 %	Usability	62 %

#### Teachers

Site		Activities Used in Evaluation	
Element Rated	Percent of Maximum Score Possible	Element Rated	Percent of Maximum Score Possible
Aesthetics	52 %	Aesthetics	56 %
Content	75 %	Content	72 %
Interest	79 %	Interest	79 %
Readability	61 %	Readability	81 %
Usability	48 %	Usability	67 %

# Appendix I

## Extracts from the Ontario Curriculum

Detailed descriptions of the expectations of the Ontario Curriculum (1998) can be found online at URL <http://www.edu.gov.on.ca/eng/document/curricul/curricul.html>.

### **Heritage and Citizenship: Grade 6 – Aboriginal Peoples and European Explorers**

#### **Overview**

The study of Heritage and Citizenship in Grade 6 focuses on the distinct cultures, both past and present, of Aboriginal peoples in Canada, and on the early European explorers. Students describe the role of the environment in shaping Aboriginal cultures. They examine the interactions between Aboriginal peoples and European explorers at the time of their first contact, and they learn how the early explorers contributed to the development of Canada. They also study the origins of concerns related to Aboriginal peoples and determine their present social, political, and economic conditions.

#### **Overall Expectations**

By the end of Grade 6, students will:

- identify ways in which the environment molded Canadian Aboriginal cultures;
- identify early explorers and describe their impact on the development of Canada;
- demonstrate an understanding of the social, political, and economic issues facing Aboriginal peoples in Canada today.

### **History: Grade 7 – Conflict and Change**

#### **Overview**

In studying conflict and change in Upper and Lower Canada during the early nineteenth century, students investigate the forces that led to the rebellions of 1837. They focus their study on the major sources of conflict; the roles played by key individuals; and the consequences of the rebellions for the ordinary people of Upper and Lower Canada, as well as for the future development of Canada.

#### **Overall Expectations**

By the end of Grade 7, students will:

- demonstrate an understanding of the nature of change and conflict, methods of creating change, and methods of resolving conflicts;

- describe the causes, personalities, and results of the rebellions of 1837 in Upper and Lower Canada;
- evaluate the social, economic, political, and legal changes that occurred as a result of the rebellions.

## **History: Grade 8 – Confederation**

### **Overview**

In their study of Confederation, students develop an understanding of the major factors and significant events that led to the creation of the Dominion of Canada in 1867. They also consider some of the key individuals involved in the formation of the nation. They examine the growth of Canada as other provinces and territories joined Confederation, and they investigate regional interests in order to appreciate and understand the regions' various points of view.

### **Overall Expectations**

By the end of Grade 8, students will:

- demonstrate an understanding of the factors that contributed to Canada's Confederation; analyse and describe current issues and their potential impact on Confederation today (e.g., demands of the Aboriginal peoples, Quebec issues, Western issues);
- demonstrate an understanding of the diverse groups and individuals who contributed to the formation and growth of Canada.

## **Canadian Politics and Citizenship, Grade 11, Open (CPC30)**

This course explores the role of politics in people's lives. Students will investigate the different ways in which individuals and groups can participate in the political process, examine the influence of citizen action on public policy, and assess the effectiveness of political systems and institutions in meeting people's needs and promoting the common good. In addition, students will learn to distinguish between the legitimate and illegitimate exercise of power by individuals, groups, and governments.

### **Values, Beliefs, and Ideologies**

### **Overall Expectations**

By the end of this course, students will:

- describe the main features and content of modern political ideologies;
- evaluate the major historical, geographic, economic, and cultural influences that shape Canadian political ideologies;
- describe how political socialization shapes the political values and beliefs of Canadians.

## **Understanding Canadian Law, Grade 11, University/College Preparation (CLU3M)**

This course explores legal issues that directly affect students' lives. Students will acquire a practical knowledge of Canada's legal system and learn how to analyse legal issues. They will also be given opportunities to develop informed opinions on legal issues and to defend those opinions and communicate legal knowledge in a variety of ways and settings, including legal research projects, mock trials, and debates.

### **Heritage**

#### **Overall Expectations**

By the end of this course, students will:

- explain what law is and why societies have laws and describe the different categories of law;
- identify the historical roots of Canadian law;
- explain who is responsible for law-making in Canada and how laws are developed, interpreted, applied, challenged, and enforced.

## **Canadian and International Law, Grade 12, University Preparation (CLN4U)**

This course explores elements of Canadian law and the role of law in social, political, and global contexts. Students will learn about the connections between the historical and philosophical sources of law and issues in contemporary society. They will also learn to analyse legal issues, conduct independent research, and communicate the results of their inquiries in a variety of ways.

Prerequisite: Any university or university/college preparation course in Canadian and world studies, English, or social sciences and humanities

### **Heritage**

#### **Overall Expectations**

By the end of this course, students will:

- demonstrate an understanding of the historical and philosophical origins of law and their connection and relevance to contemporary society;
- evaluate different concepts, principles, philosophies, and theories of law;
- demonstrate an understanding of the relationship between law and societal values;
- assess the influence of individual and collective action on the evolution of law.

## **Canada: History, Identity, and Culture, Grade 12, University Preparation (CHI4U)**

This course examines the evolution of a Canadian national identity. Students will learn how modern Canada was shaped by the interaction among Aboriginal peoples, the French, the English, and subsequent immigrant groups. This course will enable students to evaluate major social, economic, and political changes in Canadian history from pre-contact to the present. The understanding students gain through their examination of Canada's historical and cultural roots will allow them to formulate a definition of what it means to be Canadian

### **Social, Economic, and Political Structures**

#### **Overall Expectations**

By the end of this course, students will:

- describe the development of Canada's social programs and their significance in terms of Canadian identity;
- analyse how women's participation in Canadian society has changed over time;
- assess the impact of Canada's major economic relationships on Canadian sovereignty;
- describe and evaluate the nature of the Canadian political system and the groups and individuals who contributed to its development;
- assess the efforts of popular movements to reform Canadian society.