

University of Northern British Columbia

Natural Resource Management Continuing Education – Program Evaluation



26 March 2004

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EXECUTIVE SUMMARY

Continuing Education at the University of Northern British Columbia has a professional commitment to follow the University's Academic Plan with a main objective to "develop and sustain a culture of lifelong learning." It offers over 100 part-time courses per year; a significant number of these are in natural resource management. The purpose of this program evaluation was to formally assess the strengths and limitations of the Natural Resource Management Continuing Education program.

The key stakeholders included in this evaluation were: forest industry and government representatives, students, and program staff. A number of methods and instruments were used to acquire stakeholder feedback. A web-survey was sent to 847 past students, and semi-structured interviews were conducted with the Program Coordinator and the Program Manager. Further, a five-participant focus group consisted of three industry representatives, one government agent and one Natural Resource Management graduate student. Information was also collected through observations of the administrative staff and a review of archival data.

Overall, the evaluation revealed that the relationship between staff and clients was favourable and client experience was positive. To strengthen client satisfaction, it was recommended that increased staff levels, staff training, and adequate resources be devoted to the program. The majority of stakeholders agreed that the program offered high quality, relevant courses and instruction, and that the program was good value for the client. Most of those surveyed agreed that they would take another course as well as recommend these

courses to others in spite of some frustrations with course registration, a lack of easily accessible information, and cohesive marketing.

Satisfaction with instructor quality was highly rated among stakeholders. In the focus group data analysis, there was an identified need for a series of instructed courses that offered the student a progression of natural resource management knowledge and more in-depth opportunities for advancement in learning. As well, the opportunity for more certificates and diplomas relating to the profession was identified as a potential benefit for stakeholders.

Interviews revealed that program staff had the impression that the program was responsive to the needs of the client and the forest industry. This notion was only partially supported by the focus group and survey analysis. During the evaluation process, the evaluators determined that there was a lack of a formalized approach to analyze industry and client feedback and to predict trends. Building an information system to record and analyze feedback in order to determine the needs and expectations of clients, as well as to assist staff in tabulating emerging trends, was therefore recommended.

The recommendations of the evaluation team were based on the theory that a deficiency, once identified, could lead to program improvement. Although this evaluation was a pilot-study and therefore limited in scope and time, the evaluators were confident with the validity of the findings and recommendations of the program evaluation.

Table of Contents

Executive Summary	i
List of Figures	v
List of Tables	vi
List of Appendices	vii
Program Description.....	1
Program History	1
Program Context.....	1
Marketing Practices	2
UNBC Continuing Education Objective.....	2
Program Stakeholders.....	3
UNBC Stakeholders.....	3
Client Stakeholders.....	3
Stakeholders Involved.....	3
Evaluator Credentials	4
Internal Evaluator – Hilary Leighton.....	4
Quasi-Internal Evaluator – Terry Robert.....	5
External Evaluator – Glen Thielmann	7
Needs Assessment	9
Evaluation Objectives.....	10
Methodology and Instrumentation	11
Qualitative Methods	13
Structured Staff Observations – Overview	13
Structured Staff Observations – Strengths	14
Structured Staff Observations – Problems and Biases	14
Focus Group – Overview	15
Focus Group – Strengths	15
Focus Group – Problems and Biases.....	16
Semi-Structured Interviews – Overview	16
Semi-Structured Interviews – Strengths	17
Semi-Structured Interviews – Problems and Biases	17
Quantitative/Qualitative Methods	18
Web Surveys – Overview	18
Web Survey – Strengths.....	18
Web Survey – Problems and Biases	19
Archival Course Evaluations – Overview.....	20
Archival Enrolment Data – Overview.....	20
Archival Enrolment Data – Strengths	20
Archival Enrolment Data – Problems and Biases.....	20

Data Analysis and Interpretation	21
Qualitative Data	21
Structured Staff Observation Data – Analysis	21
Structured Staff Observation Data – Interpretations.....	21
Focus Group Data – Analysis.....	22
Focus Group Data – Interpretations	23
Semi-Structured Interviews Data – Analysis	24
Semi-Structured Interview Data – Interpretations.....	24
Quantitative/Qualitative Data	26
Web Survey Data – Analysis	26
Web Survey Data – Interpretations	27
Archival Enrolment Data – Analysis	31
Archival Enrolment Data – Interpretations.....	32
Summary of Evaluation Findings.....	33
Evaluators’ Recommendations.....	36
Evaluation Limitations	37

List of Figures

Figure 1 - Client Response by Percentage of NRMCE Program Course Expectations.	28
Figure 2 - Client Response of Learning Applicability of NRMCE Program Courses by Percentage.....	28
Figure 3 - Percentage of Client Recommendations of the NRMCE Program Courses.....	29
Figure 4 - Percentage of Client Responses Relating to NRMCE Program Course Value	29
Figure 5 - Percentage of Clients Willing to Take Another NRMCE Program Course.....	30
Figure 6 - Percentage of NRMCE Courses Taken by Participants Surveyed	30

List of Tables

Table 1 – Summary of Data Types and Associated Instruments Used in this Evaluation.....	11
Table 2 – Summary of Stakeholder Involvement and Evaluation Methods.....	12
Table 3 – Staff Observation Schedule.....	13
Table 4 – Recurring Qualitative Data from Focus Groups.....	23
Table 5 – Recurring Qualitative Data from Interviews.....	25
Table 6 – Most Valuable Characteristics of the NRMCE Program Identified by the Web Survey.....	31

List of Appendices

Appendix A – NRMCE Course List.....	39
Appendix B – Letter of Permission.....	40
Appendix C – Research Questions used to Address the Evaluation Objective.....	41
Appendix D – SFU Standard Consent Form.....	42
Appendix E – Web Survey Email Consent.....	44
Appendix F – Observational Checklist.....	45
Appendix G – Focus Group Topic Questions.....	46
Appendix H – Semi-Structured Interview Questions.....	47
Appendix I – Web Survey.....	48
Appendix J – Web Survey Qualitative Information Summary.....	50

PROGRAM DESCRIPTION

PROGRAM HISTORY

The Natural Resource Management Continuing Education (NRMCE) program at the University of Northern British Columbia (UNBC) offers a variety of courses in sustainable natural resource management for professionals, technical personnel and forestry workers throughout British Columbia. In 1991, the Continuing Education (CE) department at UNBC started as a part of the British Columbia Forestry Continuing Studies Network. Created to encourage cooperation among existing providers of continuing education in natural resource management, and to organize activities to meet local needs. Five delivery centres, including UNBC, and four community colleges became responsible for the organization and delivery of a variety of programs. Refocusing of government funding meant the dissolution of the British Columbia Forestry Continuing Studies Network, however, with a small amount of residual Network funds, UNBC was able to carry on providing forestry related continued studies in the North.

PROGRAM CONTEXT

The UNBC Continuing Education department is strategically situated in the Conference Services building in order to share administrative staff, space and other resources. At present, an Acting Director, one part-time Manager, one full time Coordinator, one contract position and some shared administrative support make up the department in its entirety.

This unit delivers over one hundred part-time (daytime, evening, and weekend) Continuing Education courses per year (refer to Appendix A – NRMCE Course List). Participants register for courses by telephone, fax or in person. Most of the courses are interest based (not for university credit) and are designed to enable participants to enhance their knowledge of natural resource management.

MARKETING PRACTICES

Central to marketing and awareness is the publication of the annual UNBC Continuing Education calendar distributed to local residents through the newspaper, through local business and associations, educators, industry and public kiosks. The UNBC website (www.unbc.ca/conted) links to a CE page featuring current course listings and descriptions, registration, and other information. Additionally, personal contact, email correspondence, faxing campaigns and some newspaper advertising have augmented marketing efforts to date.

UNBC CONTINUING EDUCATION OBJECTIVE

Identified in the UNBC Academic Plan, ACTION 2002, the core objective of the UNBC Continuing Education unit is to:

“Develop and sustain a culture of lifelong learning.”

PROGRAM STAKEHOLDERS

UNBC STAKEHOLDERS

- President
- President's Council
- President's Executive Council
- Board of Governors
- Senate
- University Resources Inc.
- Vice President of Administration and Finance
- Continuing Education Coordinator*
- Operations Coordinator
- Manager of Housing and Conference Services*
- Natural Resource Management Faculty Representative
- Natural Resource Management Continuing Education Instructors
- UNBC Faculty and staff

CLIENT STAKEHOLDERS

- Natural Resource Management Continuing Education Students*
- Ministry of Forests, Government of British Columbia*
- Ministry of Water, Land and Air Protection, Government of British Columbia
- British Columbia Association of Forest Professionals*
- Professional Foresters Network
- Association of Professional Biologists*
- Council of Forest Industries
- Forest Tenure Holders*
- Forest Consulting Firms*
- City of Prince George
- Regional District of Fraser Fort George
- Local and Regional Community Members

STAKEHOLDERS INVOLVED

Only those stakeholders directly involved in the program were included in this evaluation and are indicated with an asterisk (*).

EVALUATOR CREDENTIALS

INTERNAL EVALUATOR – HILARY LEIGHTON

Hilary Leighton is currently employed as an independent contractor for UNBC in the CE department. Her role is to assist in the overall development, delivery and marketing of the CE program working at times with the Natural Resource Management Programs Coordinator. Although Hilary has developed a comprehensive understanding of the UNBC Natural Resource Management Continuing Education program, she recognizes her limitation of experience in conducting program evaluations.

Hilary is working towards a Masters of Education at Simon Fraser University (SFU) and is currently studying the Evaluation of Educational programs. She has worked as an employment counsellor, forest technician, trainer, facilitator and supervisor with a significant portion of her time devoted to facilitating workshops and developing meaningful curriculum. Her experience included facilitating large groups as well as teaching interview skills and developing interview questions. She also been involved in spearheading various non-profit fund-raising and awareness projects in the North where her organizational and motivational skills were developed. She fully understands the challenges between setting project goals, implementation and meeting final objectives.

As her future full time employment at the University is contingent on the department's overall success and subsequent expansion, Hilary was inclined to view the evaluation as a tool for improvement and growth and an aid to the Natural Resource Management Coordinator in achieving the program's goals. As a contractor at the University, Hilary was included in many internal discussions about the CE programs. Her familiarity with the

departmental issues and challenges, and her loyalty to the success of the Continuing Education team, put her in a unique position. She had unlimited access to all confidential reports, proposals, discussion papers, budgets, email addresses, research and archival information. Also, due to established working relationships with other CE staff, Hilary demonstrated an ability to set those CE stakeholders being interviewed or observed at ease about the intentions of the evaluation.

Hilary's short-term motivation was to secure a full time position in the CE department, however, she was ultimately clear that it would not serve her or the department in the long-term to inaccurately report her findings or favourably skew the data. Her position at the University might be viewed as a potential compromise for a clear evaluation, therefore Hilary partnered with Terry Robert, a quasi-internal evaluator with exposure to the Natural Resource Management Program as a Forester-in-Training, and with Glen Thielmann, a K-12 Geography teacher who had had no direct experience with UNBC or the program. Both Terry and Glen had an interest in sustainable forest management practices and overall forest health. This blend of experience, interest and skills provided a balance of perspectives.

QUASI-INTERNAL EVALUATOR – TERRY ROBERT

Terry is currently working towards the completion of a M.Ed. degree in Curriculum and Instruction at SFU. Terry's M.Ed. coursework has included Developing Education Programs, Organizational & Leadership Theory and Policy Processes. Currently he is enrolled in an Evaluating Educational Programs course, and has limited practical experience conducting program evaluations. In addition, he has a B.Sc. in Natural Resources

Management with a major in Forestry and minors in Environmental Planning and Geomorphology from the University of Northern British Columbia. Terry brings a knowledge of the Association of British Columbia Forest Professionals with his Forester-in-Training status. Further, Terry's extensive community experience on the Board of Directors for the Project Friendship Society and the Omineca Bear Human Conflict Committee contributes a well-rounded sense of community interest to the evaluation.

Terry's work experience in the forest industry provides him with an understanding of the educational needs of operational forest workers. As a forest contractor, he has also participated in conferences hosted by the UNBC Continuing Education program and therefore has a first-hand understanding of the continuing education process. Terry also offers related skills in survey design and implementation as well as the facilitation of information workshops and forums through his involvement with public consultation during the Timber Supply Review process as well as his participation in direct dialogue activities for the Federal government. These experiences have instilled Terry with the goal to build on the current program in order to create a more diverse program that fully meets the needs of its clientele.

Terry is a firm believer in social forestry and achieving change within the profession through education. Terry's ultimate goal is to achieve equity and diversity in the forest management decision-making process. He feels that the current forest management decision-making process is too narrow for environmental sustainability. By targeting the education system provided for Professional Foresters and the public, British Columbia's forests can be managed in a more socially and environmentally sustainable manner.

EXTERNAL EVALUATOR – GLEN THIELMANN

Glen is currently working towards the completion of a M.Ed. degree in Curriculum and Instruction at SFU. His M.Ed. coursework has included Developing Education Programs, Organizational & Leadership Theory, Curriculum & Instruction, and Embodiment & Curriculum Design. Currently he is enrolled in an Evaluating Educational Programs course. In addition, in 1994 he completed a B.A. in English and Geography from the University of British Columbia (UBC). During his time at UBC his coursework centred on English literature and human geography. Of particular interest were courses on Geographic Theory & Practice, Literature of the Pacific Northwest, and an Anthropology/Geography course on Modes of Subsistence. Glen has also completed the PDP - Education Program at SFU (1995). The focus of his studies at SFU was on Social Studies and English. His longer practicum was completed at College Heights Secondary School in Prince George, where he taught for seven of the last eight years.

Glen has a diverse work experience. He has taught a variety of subjects in the Prince George School District including Social Studies, English, Art, and Career Planning, thus offering him an intimate understanding of the relationship between program objectives and implementation. Further, through his work as the Social Studies Department Chair (2001-2003) he has gained expertise in coordinating department activities, organizing and chairing meetings, developing policy and programs, archiving student projects and department records, and acting as a liaison between staff and administration. As a student, teacher, coach, and department coordinator, he is committed to lifelong learning and meaningful educational experiences. Among other jobs in the forest industry, Glen has also worked as

an Ecosystem Geographer for Timberline Forest Inventory Consultants. In this capacity his responsibilities included biological/geological data collection for maps and development of management plans for forest ecosystems. He has, therefore, some understanding of the educational needs of forest practitioners, and this is his initial experience conducting a program evaluation.

Glen's educational and employment history is evidence of his appreciation for ecological responsibility and the value of education in overcoming misunderstanding over resource issues. He believes his knowledge of education systems and ecological research are positive skills in the program evaluation process. Glen acknowledges a limitation in his role as an external evaluator in that he has no prior familiarity with the UNBC Natural Resource Management Program and its non-industry stakeholders.

NEEDS ASSESSMENT

For this evaluation a preliminary informal needs assessment was completed. The purpose of the needs assessment was to assess the perceptions and expectations of the various key stakeholders involved in the evaluation, as well as to provide the evaluators with an implicit understanding of the program itself. The assessment involved discussions with program staff and clients, as well as document reviews, and internet searches designed to identify program objectives, goals, and deliverables. Further, there were brief opportunities to discuss the benefits, limitations and potential improvements for the program during this assessment. The needs assessment clarified and helped refine the program evaluation goals. It also served as an initial point of contact between key stakeholders and evaluators and helped encourage buy-in during the early stages of the process.

EVALUATION OBJECTIVES

The primary objective of this formative evaluation was to assess the strengths and limitations of the Continuing Education Natural Resource Management program at UNBC and to develop recommendations for improvement (refer to Appendix B – Letter of Permission). In order to attain this objective a Management-Oriented evaluation approach was initiated. Under this approach the evaluators strived to identify recommendations that could be used to mitigate the constraints and enhance the benefits of the program. This evaluation focused specifically on the identification of client needs and barriers to program success. In order to meet this objective under this model of evaluation, the evaluators examined a variety of program characteristics and research questions involving multiple stakeholders (refer to Appendix C – Research Questions used to Address the Evaluation Objectives).

METHODOLOGY AND INSTRUMENTATION

The evaluators systematically chose each method of analysis in order to meet the objectives of this evaluation. Each method had a number of strengths and a number of associated biases and sources of error; therefore, by using a variety of instruments with multiple stakeholders, the likelihood of corruption and distortion was decreased and the evaluation was strengthened. For this evaluation both qualitative and quantitative data were collected (Table 1). Using both types of data for interpretation, the evaluators were able to increase the overall validity and reliability of the evaluation.

Table 1 – Summary of Data Types and Associated Instruments Used in this Evaluation

Data Type	Instruments
Qualitative	<ol style="list-style-type: none"> 1. Structured Staff Observations 2. Forest Industry Focus Group 3. Semi-Structured Staff Interviews
Quantitative/Qualitative	<ol style="list-style-type: none"> 1. Client Web Surveys 2. Archival Data

In order to further increase the validity of this evaluation, the evaluators involved key stakeholders in all stages of the evaluation development process encouraging the likelihood of buy-in. Further, ongoing dialogue between evaluators and key stakeholders helped increase the level of comfort with the chosen methodology and helped build rapport. Including key stakeholders at each step also provided an opportunity to cross-reference data in order to avoid misunderstandings that could limit the success of the evaluation. Table 2 outlines the methods employed for this evaluation and the stakeholders that

participated. Each key stakeholder that participated in the semi-structured interviews, focus group, and staff observations gave written permission on a standard SFU consent form wherein they agreed to allow the information collected to be used for this evaluation (refer to Appendix D – SFU Standard Consent Form). For the web surveys, an introductory email to each participant indicated that in filling out and submitting the survey the participants were giving their consent (refer to Appendix E – Web Survey Email Consent). Further, all stakeholders were informed that any information collected would be kept confidential. As a result, stakeholders were more inclined to respond freely to questions and provide less distorted responses.

Table 2 – Summary of Stakeholder Involvement and Evaluation Methods

Stakeholder and Methods	Number of Stakeholders	Number of Actual Participants	Percentage of Responses
Staff <ul style="list-style-type: none"> • Observations • Interviews 	1 2	1 2	100% 100%
Client <ul style="list-style-type: none"> • Web Surveys • Archival Data 	847 50	40 50	4.7% 100%
Forest Industry <ul style="list-style-type: none"> • Focus Group 	5	5	100%

QUALITATIVE METHODS

Structured Staff Observations – Overview

One evaluator observed one administrative staff member for 30 minutes once per day for three days in a row. The administrative staff was responsible for client services and often acted as a first point of contact both on the telephone and in person for fielding client inquiries, registration, and issuing tuition receipts. The evaluator had established a working relationship with the administrative staff prior to the evaluation and aimed to create a non-disruptive atmosphere and put the participant at ease. All observations took place within the offices of Conference Services at UNBC (Table 3).

Table 3 – Staff Observation Schedule

Staff Member	Day 1	Day 2	Day 3
Administrative Support	9:00AM to 9:30AM	11:00AM to 11:30AM	4:00PM to 4:30PM

The evaluator spread the observations over several days at different times of the day in order to collect data related to the observed behaviour of the staff member and to increase observational accuracy (refer to Appendix F – Observational Checklist). In order to increase objectivity, a template was developed to guide the observations and to record specific visible behaviours. Although observations were conducted on a general level, the evaluator recorded specific information using the observational checklist and by taking field notes. The evaluator checked off observed corresponding behaviours on the list during the observation period. Further, field notes were taken in the margins of the checklist to record

any other observed behaviour not listed that might have contributed to the overall evaluation objectives.

Structured Staff Observations – Strengths

- **Experiential** – Provided the evaluator with firsthand experience to understand the staff and the culture of the organization. It allowed the evaluator to spend a considerable amount of time observing staff in order to understand the staff's relationship and responsiveness to the program.
- **Contextual** - Provided the evaluator with the opportunity to record behaviour as it occurred, in the context of the office.
- **Comparable** – A standardized template was used to observe stakeholder behaviours; therefore, comparisons could be made in order to increase internal validity and reliability of the findings.
- **Comprehensive** – Allowed the evaluator to gain a deeper understanding of the day-to-day operations and systems of the program itself including aspects the evaluator might not have anticipated.
- **Personal** – Allowed the evaluator to work alongside the stakeholder to help establish rapport and an increased level of comfort.

Structured Staff Observations – Problems and Biases

- **Observer Influence** – The participant may have seen the evaluator as intrusive and as a result may have acted differently. In order to counter this, the evaluator discussed this issue with the participant in an informal manner and outlined the importance of the activity. Furthermore, by spreading the observations over three days, the staff member became more accustomed to the evaluator's presence and was more inclined to exhibit normal behaviour.
- **Evaluator Bias** – Evaluators familiar with the program may enter an observation with preconceived notions rather than being open to alternative interpretations. To limit this, a standardized template was used to encourage a more objective approach to recording observations.

Focus Group – Overview

The purpose of the focus group was to identify the continuing education needs of: Foresters, Biologists, Graduate Students, and other industry professionals within the private and public sector, as well as to identify mechanisms for program improvement (refer to Appendix G – Focus Group Topic Questions). Four forest industry representatives, one Government agent and one Natural Resource Management Graduate Student were purposely invited to participate in the focus group. These individuals were chosen to represent various arms of the forest industry (government, private consultants, private industry, and education). All attended with the exception of one forest industry representative. The focus group met with the evaluators at UNBC on March 8th, 2004 at 5:00PM for approximately 45 minutes. The participants were offered food and beverages in an informal setting in order to help them feel more at ease.

The sessions were audio taped (with the approval of the participants) to provide a data record. Specific focus group questions were developed by the evaluators to stimulate conversation and to link to the evaluation objectives; however, the evaluators also encouraged spontaneity within the focus group.

Focus Group – Strengths

- **Interactive** – Provides an opportunity for an active exchange of ideas between participants. The interaction of this focus group led to a broader understanding of the strengths and limitations of the program.
- **Flexible** – Allowed the evaluators to collect a wide variety of possible responses and acted as a flexible instrument of program assessment.
- **Comprehensive** – Provided depth and perspective in relation to participant opinions, attitudes, concerns, and perceptions of the program.

- **Secondary Assessment** – Provided an instrument for cross-referencing and comparing all other information gathered for this evaluation.

Focus Group – Problems and Biases

- **Interviewer Influence** – Participants may have been inclined to modify or reserve comments and opinions in the presence of their peers and the evaluators. To mitigate this, the evaluators tried to create an informal and relaxed environment for the participants using food, humour and open-ended questions that were subject-focused.
- **Topic Dependent** – Information that was interesting but not relevant to the program evaluation objectives may have steered the discussion. The evaluators were cognizant of the potential for this to happen and remained open to the flow of the conversation while directing the group back to relevant subjects.
- **Evaluator Bias** – Evaluator bias was another potential problem associated with the focus group. Each individual evaluator may interpret discussions and results differently. It was therefore imperative that all evaluators be present at the focus group in order to compare results afterward. In addition, the audiotape served as an objective record of the process.
- **Participant Bias** - The selection of participants was limited and was not a random sample of a larger stakeholder population. In order to decrease this threat to the internal validity of the evaluation, the evaluators used various other instruments to collect multiple stakeholder input.

Semi-Structured Interviews – Overview

The evaluators conducted two audio taped interviews with the Continuing Education Coordinator and the Manager of Housing and Conference Services (refer to Appendix H – Semi-Structured Interview Questions). These particular stakeholders were selected for their high level of involvement with the NRMCE program. For example, the Continuing Education Coordinator was responsible for the day-to-day operations and general marketing of the program. The Manager of Housing and Conference Services supervised the Continuing Education Coordinator as well as the administrative staff while overseeing the development and budgetary restrictions of the NRMCE program. The interviews

focused on program characteristics, program successes, side effects, as well as mechanisms for improvement through a series of open-ended subject-focused questions.

Semi-Structured Interviews – Strengths

- **Contextual** – Allowed the evaluators to gather historical information about the program and the people involved from the participants' perspective.
- **Comprehensive** – Allowed the evaluators to collect clear, articulate, and in-depth responses through the use of follow-up questions and further probing.
- **Consistent** – Allowed the evaluators to control the line of questioning.
- **Flexible** – Allowed the evaluators to collect a wide variety of possible responses.

Semi-Structured Interviews – Problems and Biases

- **Interviewer Influence** – The presence of the evaluator during semi-structured interviews may have impacted the responses of the participant. Participants may have been inclined to modify or reserve comments and opinions in the presence of the evaluators. To mitigate this, the evaluators attempted to use humour and preliminary informal conversations with each participant at the beginning of each session.
- **Time Consuming** – Semi-structured interviews required substantial time commitments. To mitigate this problem, the evaluators focused the interviews on key players within the program. Further, the evaluators also used other instruments of data collection (web surveys, focus groups and staff observations).
- **Topic Dependent** – Information that was interesting but not relevant to the program evaluation objectives may have steered the discussion away from evaluation objectives. The evaluators were cognizant of the potential for this to happen and remained open to the flow of the conversation while directing the participant back to the evaluation objectives. Use of the transcriptions of the interviews allowed the evaluators to focus on relevant topics when analyzing the data.
- **Evaluator Bias** – Evaluator bias represented a potential problem associated with structured interviews. Each individual evaluator may record and interpret results differently. To mitigate this, two evaluators were present at each interview and the audiotape served as an objective record of the process.

- **Participant Bias** - The selection of interview participants was biased due to low sample size. Only two internal staff were interviewed. In order to decrease this threat to the internal validity of the evaluation, the evaluators used various other instruments of data collection (web surveys, focus groups and staff observations).

QUANTITATIVE/QUALITATIVE METHODS

Both web surveys and archival course evaluations surveys contained data that was qualitative and quantitative. Qualitative data was collected in the comment sections of each survey, whereas, quantitative data was collected in the rating scale questions. Further, archival enrolment data was collected in a purely quantitative manner.

Web Surveys – Overview

For this evaluation, web surveys were provided to past and present NRMCE clients (refer to Appendix I – Web Survey). Subjects included:

- Course content
- Course selection
- Program management
- Quality of delivery
- Service to the client
- Client satisfaction

In order to deliver the survey, 847 emails were sent out to clients by the evaluation team. For ease of completion, a direct link to the web survey was provided.

Web Survey – Strengths

- **Efficient** – Provided a time-efficient instrument for collecting data. Web surveys have a fast survey delivery time (surveys were available to clients as soon as the email was received).
- **Independent** – Evaluators were not present during the completion of the web surveys, therefore participants were more likely to respond normally.

- **Precise** – Standardized web survey questions ensured that responses were more precise by enforcing uniform definitions on participants.
- **Remote** – Web surveys were an efficient cost-effective tool for collecting client information (no paper or mailing was required due to the survey being web based) as they enabled the evaluators to administer the web survey from a remote location.
- **Simple** – Provided the evaluators with a straightforward medium to identify and collect client input regarding the strengths and limitations of the program with a large number of clients.
- **Testable** – Survey questions were tested before they were given to the respondents in order to ensure understanding and clarity. The survey used in this evaluation was tested for feasibility and improvement on February 14th, 2004 with the graduate students of the M.Ed SFU Prince George cohort.

Web Survey – Problems and Biases

- **Limited Response** – Web surveys do not provide an opportunity for spontaneity and probing. To compensate for this problem comment lines were added to each question and three open-ended questions were incorporated at the end of the survey.
- **Multiple Interpretations** – Survey questions can be interpreted many different ways. To minimize this, the questions were tested on the M.Ed SFU Prince George cohort and feedback provided was used to further refine this survey.
- **Respondent Control** – More than one person may have filled out each survey response. Also, due to the anonymous nature of the web survey, the same person may have completed more than one survey. There is no way to determine these errors; therefore, the evaluators used multiple sources of input from multiple stakeholders to increase the validity of the evaluation. Furthermore, the large survey sample size served to minimize the impact of these occurrences.
- **Participant Bias** – Web surveys can only be completed by those clients that have access to the internet and therefore, the sample may not be representative. However, given the technical nature of the natural resource management field and the level of expertise required in taking NRMCE courses the impact of this was minimized.

Archival Course Evaluations – Overview

The evaluators randomly reviewed 50 archival client course evaluations. The evaluators decided to relinquish archival course evaluations as a feasible and reliable source. The questions were not standardized nor were they developed to address the objective of this evaluation. The archival data yielded subsequent information that although interesting rendered comparison impossible, therefore, the data was found to be unstable and would be a threat to the overall validity and reliability of this evaluation.

Archival Enrolment Data – Overview

For this analysis, the evaluators reviewed archival data regarding course enrolment rates in order to assess program growth. Further, information related to the number of courses offered versus the number of courses actually delivered for the last year was also collected. This information was used to determine how many courses were cancelled per year due to low enrolment.

Archival Enrolment Data – Strengths

- **Limited Bias** – The information was not developed for this evaluation and therefore was not biased by the evaluators.

Archival Enrolment Data – Problems and Biases

- **Misleading** – Enrolment numbers are not necessarily a good indicator of program successes. Enrolment numbers can be influenced by external factors such as downturns in the economy.

DATA ANALYSIS AND INTERPRETATION

QUALITATIVE DATA

Structured Staff Observation Data – Analysis

To limit the biases of staff observations and to increase the validity of data, an observational checklist with specific positive behavioural criteria was designed (refer to Appendix F – Observational Checklist). The checklist included criteria that focused on mannerisms, knowledge of the program and services, organizational abilities, confidence, initiative, and client interaction. In order to analyze this data, the evaluation team reviewed and sorted the data into two categories (yes or no). Behaviour frequency was tabulated and percentages were calculated.

Further, the field note observations listed in the ‘comments’ and ‘observations to note’ sections were transcribed into a document which each evaluator read separately. Each evaluator developed his or her own observations and possible themes for coding. Consensus was then reached between the evaluators in determining which of the themes of the text were most frequent and thus, which codes would be used to analyze the data. Data was then coded and the results were tabulated for each category.

Structured Staff Observation Data – Interpretations

The data collected indicated that during observation times, when clients came into the office, they appeared satisfied with the services provided (60%). Client inquiries were handled in a helpful manner (67%), and follow-up was prompt (67%). Also, telephone interaction with clients seemed friendly (67%). Furthermore, observations indicated that the

staff appeared organized (100%) and directed client concerns to the appropriate persons (67%).

The data also indicated that improvement in the area of NRMCE program knowledge for administrative staff is required. During the observation times it was noted that 80% of the communication with clients seemed vague. After cross-referencing the analyzed data from the interviews and focus group, communication issues identified during observations appeared indicative of a larger systemic communication problem within the NRMCE program. In all fairness, staff appeared to be doing their utmost within the constraints of limited departmental resources. The evaluators recognized that short observation times contributed to the restricted scope of the observational data.

Focus Group Data – Analysis

The focus group was audio taped and field notes were taken. The tapes were transcribed into a document. The transcription document was then cross-referenced by each evaluator to ensure accuracy and to provide an opportunity for revisions and clarification. Next, each line of the text was numbered. The evaluation team then read the text separately in order to determine possible recurrent themes. The evaluators compared their own findings and as a team developed a shared set of codes which reflected the common themes. For example, all client focus group comments that related to program improvements of the NRMCE program were coded into the general category of PI that included subcategories such as: course selection (PIcs), timing (PIt), registration (PIr), and certification (PIc). The evaluators then used the number of occurrences in each subcategory to determine percentages.

Focus Group Data – Interpretations

The evaluators recognized a number of common responses in the qualitative data taken from the focus group. Three leading program strengths mentioned by participants were course quality, course timing, and instructor quality (refer to Table 4 for percentages). Three program limitations mentioned by focus group participants relate to a lack of program marketing, limited course selection and course registration problems. While there were some program limitations identified, overall the participant comments were positive and encouraged improvement.

Table 4 – Recurring Qualitative Data from Focus Groups

Characteristics	Percentage of Total Responses
Strengths <ul style="list-style-type: none"> • Course Quality • Course Timing • Instructor Quality • Course Selection • Course Flexibility • Course Certification • Program Growth • Course Structure • Program Partnerships • Course Cost Effectiveness 	<p>28%</p> <p>18%</p> <p>10%</p> <p>8%</p> <p>8%</p> <p>5%</p> <p>3%</p> <p>3%</p> <p>3%</p> <p>3%</p>
Weaknesses <ul style="list-style-type: none"> • Lack of Marketing • Limited Course Selection (progression) • Course Registration • Course Structure • Course Quality • Course Timing • Course Certification Needed 	<p>40%</p> <p>20%</p> <p>15%</p> <p>10%</p> <p>5%</p> <p>5%</p> <p>5%</p>

Semi-Structured Interviews Data – Analysis

The interviews were audio taped and field notes were taken. The tapes were transcribed into a document. The transcription document was then cross-referenced by each evaluator to ensure accuracy and to provide an opportunity for revisions and clarification. Next, each line of the text was numbered. The evaluation team then read the text separately in order to determine possible recurrent themes. The evaluators compared their own findings and as a team developed a shared set of codes that reflected prevalent themes. For example, all client semi-structured interview comments that related to the strengths of the NRMCE program were coded into the general category of PS (program strengths) that included subcategories such as: course selection (PScs), instructor quality (PSiq), and responsiveness (PScr). The evaluators then used the number of occurrences in each subcategory to determine percentages.

Semi-Structured Interview Data – Interpretations

The evaluators recognized a number of common responses in the qualitative data taken from the interviews. Three leading program strengths mentioned by interviewees, were responsiveness of the program to the needs of the community, growth and expansion of the program, and course selection available to prospective students (refer to Table 5 for percentages). Three program limitations mentioned by interviewees related to the lack of financial resources or capital, staff shortages (lack of human resources), and the susceptibility of the NRMCE program to an economic downturn (e.g. forest industry). The evaluation team recognized the limitations of coding qualitative data when working with only

two interviewees, however, these interviews represented 100% of the managing staff of the program.

Table 5 – Recurring Qualitative Data from Interviews

Characteristics	Percentage of Total Responses
Strengths <ul style="list-style-type: none"> • Program Responsiveness • Program Growth • Course Selection • Course Cost • Course Flexibility • Instructor Quality • Unique Service • Program Marketing 	38% 21% 20% 7% 5% 4% 4% 3%
Weaknesses <ul style="list-style-type: none"> • Lack of Resources • Staff Shortages • Susceptibility to Economic Downturn • Lack of Evaluation • Course Selection • Lack of Class Space • Course Registration 	26% 24% 19% 13% 11% 7% 1%

QUANTITATIVE/QUALITATIVE DATA***Web Survey Data – Analysis***

In order to complete the analysis of web survey results, the evaluation team separated the client responses into two categories based on data type (quantitative and qualitative). The quantitative data was collected from the web survey questions that required clients to pick a rated answer (Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree), whereas the qualitative data was collected from the comment sections and open-ended questions of the web survey.

The quantitative portion of the web survey was analyzed by determining the frequency of responses for each question (in the form of percentages). For example, twenty percent ($8/39 \times 100 = 20\%$) of the clients that responded to the web survey strongly agreed that the instructor was clear about NRMCE course objectives, whereas 77% agreed, and 3% disagreed with the statement. After client response percentages were calculated for each of the rated questions of the web survey, responses were coded (Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4 and Strongly Agree = 5) in order to determine the average, median, and standard deviation of client responses.

The qualitative portion of the web survey was analyzed by first compiling all comments and responses to open-ended questions into one document. Next, each line of the text was numbered. The evaluation team then read the text in order to determine recurrent themes. From these themes codes were developed for sorting all data based on similar characteristics. For example, all client comments that related to the most valuable characteristics of the NRMCE program were coded into the general category of MV that

included subcategories such as: cost (MVc), up-to-date information (MVutd), applicable information (Mva), and class size adequacy (MVcs). The evaluators then used the number of occurrences in each subcategory to determine percentages.

Web Survey Data – Interpretations

Client surveys showed that 88% of clients (*Strongly Agree = 15% and Agree = 73%*) felt that the NRMCE courses they participated in met their expectations (Figure 1). Further, 81% of the clients (*Strongly Agree = 22% and Agree = 59%*) believed that the NRMCE program courses were useful to them (Figure 2). As well, 87% of the clients (*Strongly Agree = 26% and Agree = 61%*) stated that they would recommend the courses to others (Figure 3). Next, 76% of the clients (*Strongly Agree = 30% and Agree = 46%*) believed that the benefits gained by participating in a NRMCE course was worth the cost (Figure 4). Also, 85% of the participants surveyed indicated that they would definitely take another NRMCE course (Figure 5). Finally, 28% of the clients surveyed indicated that they had taken more than five NRMCE courses (Figure 6).

Figure 1 – Client Response by Percentage of Course Expectations

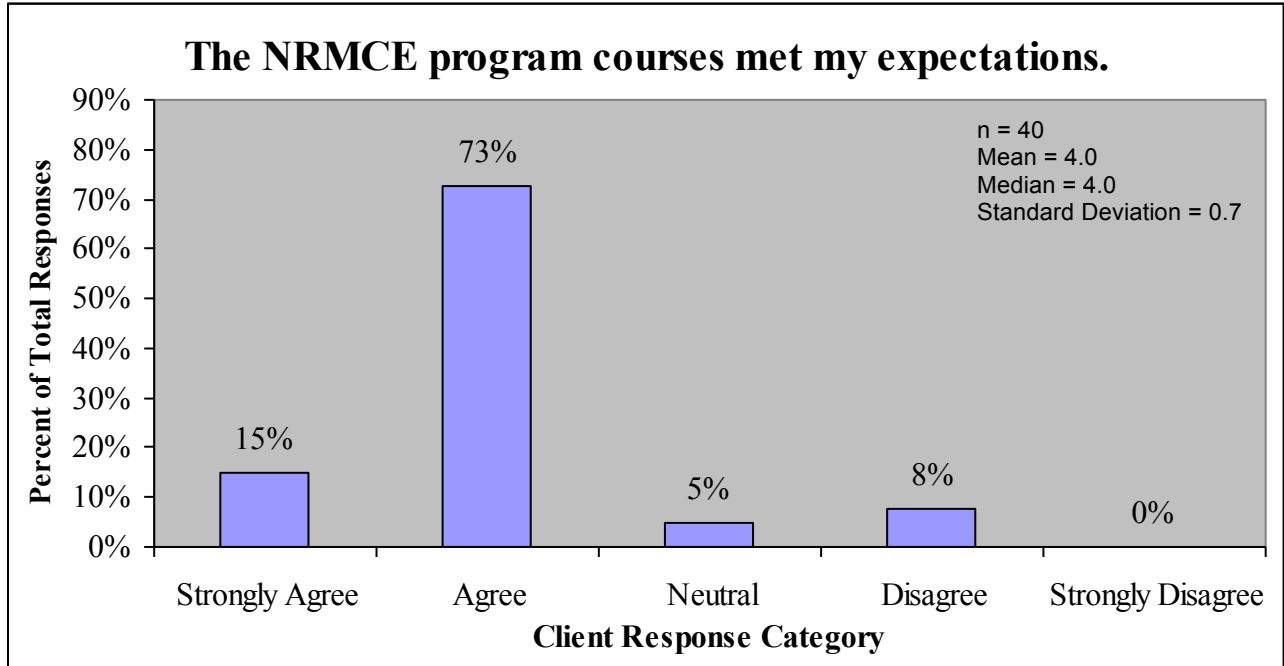


Figure 2 – Client Response of Learning Applicability of Courses by Percentage

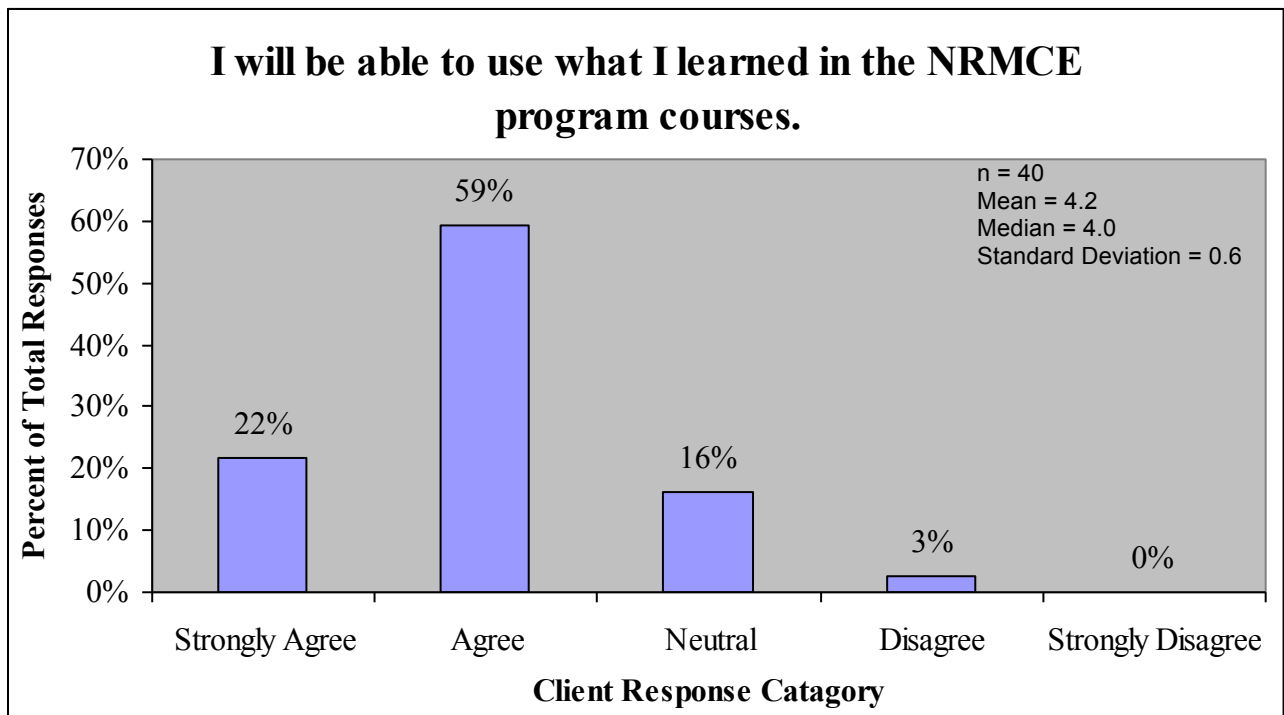


Figure 3 – Percentage of Client Recommendations of the Courses

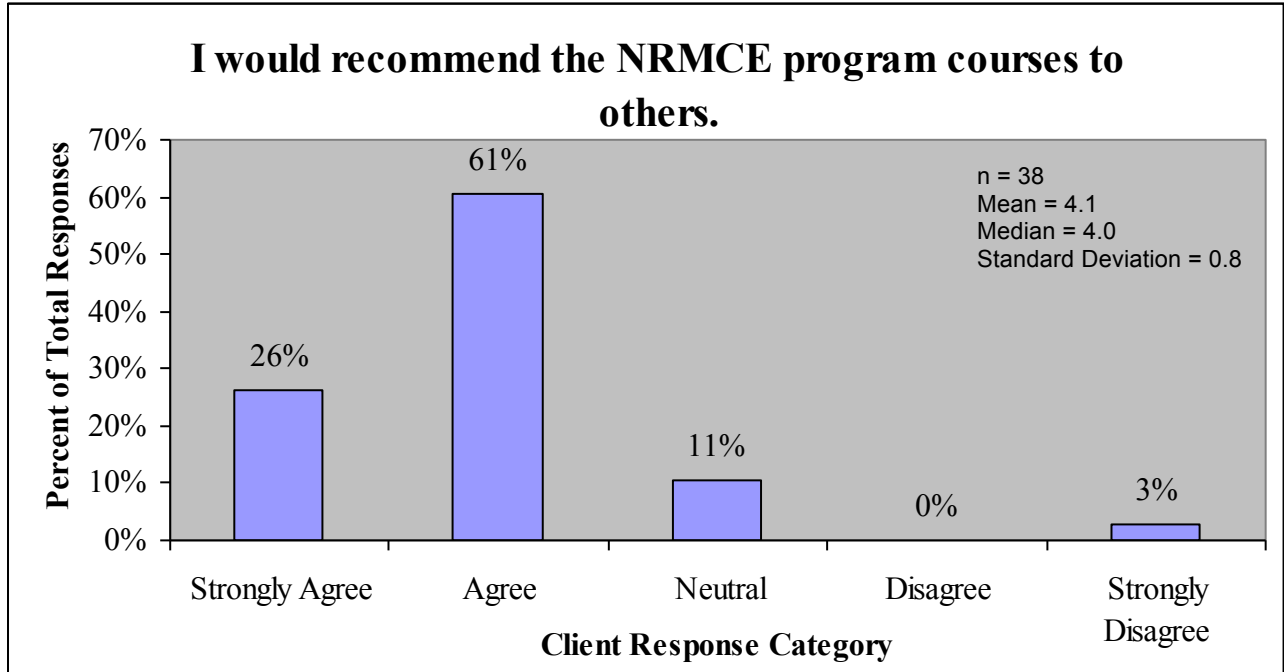


Figure 4 – Percentage of Client Responses Relating to Course Value

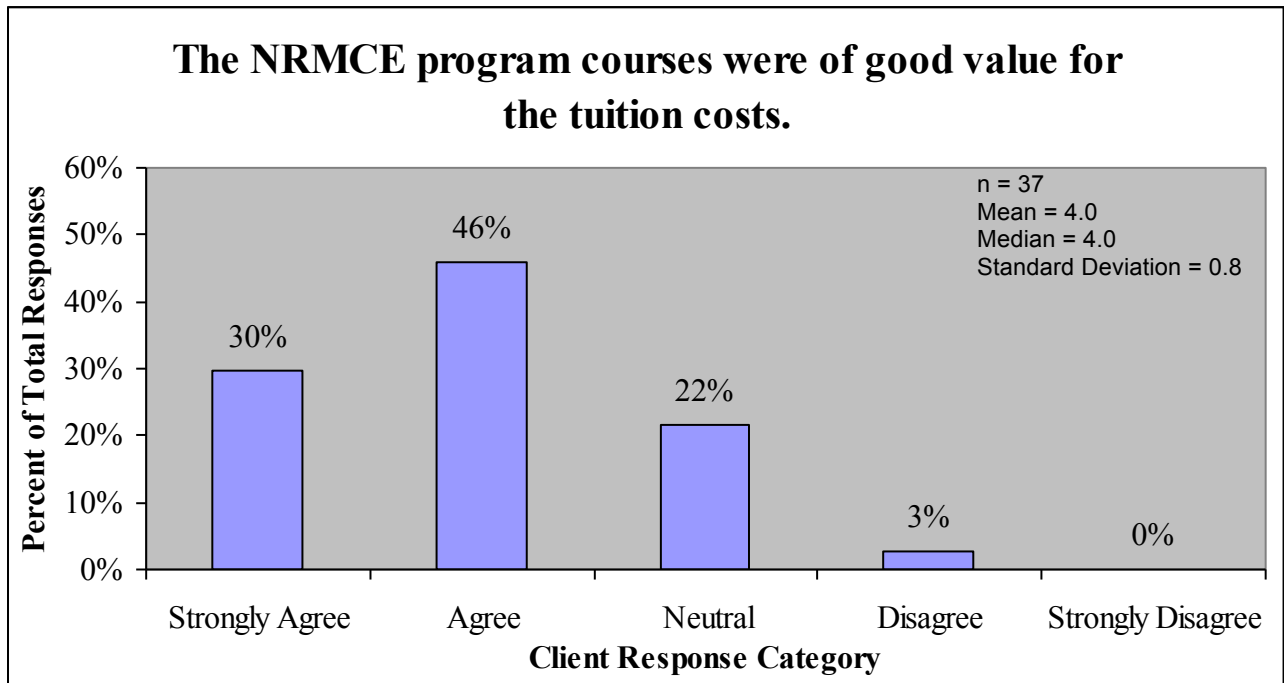


Figure 5 – Percentage of Clients Willing to Take Another Course

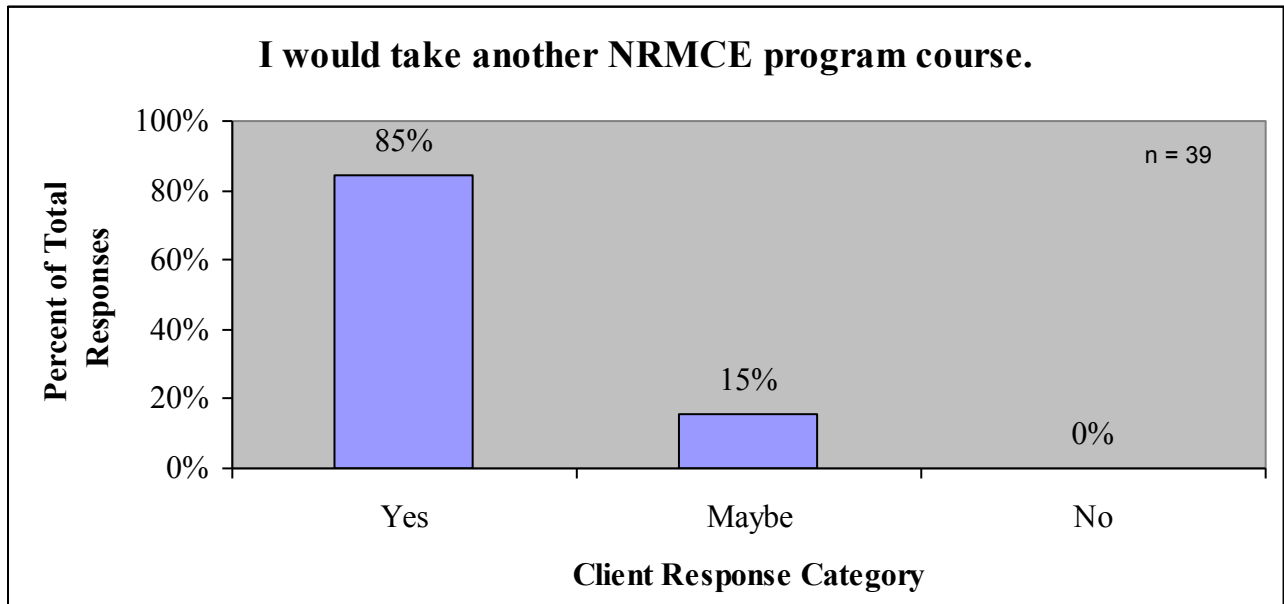
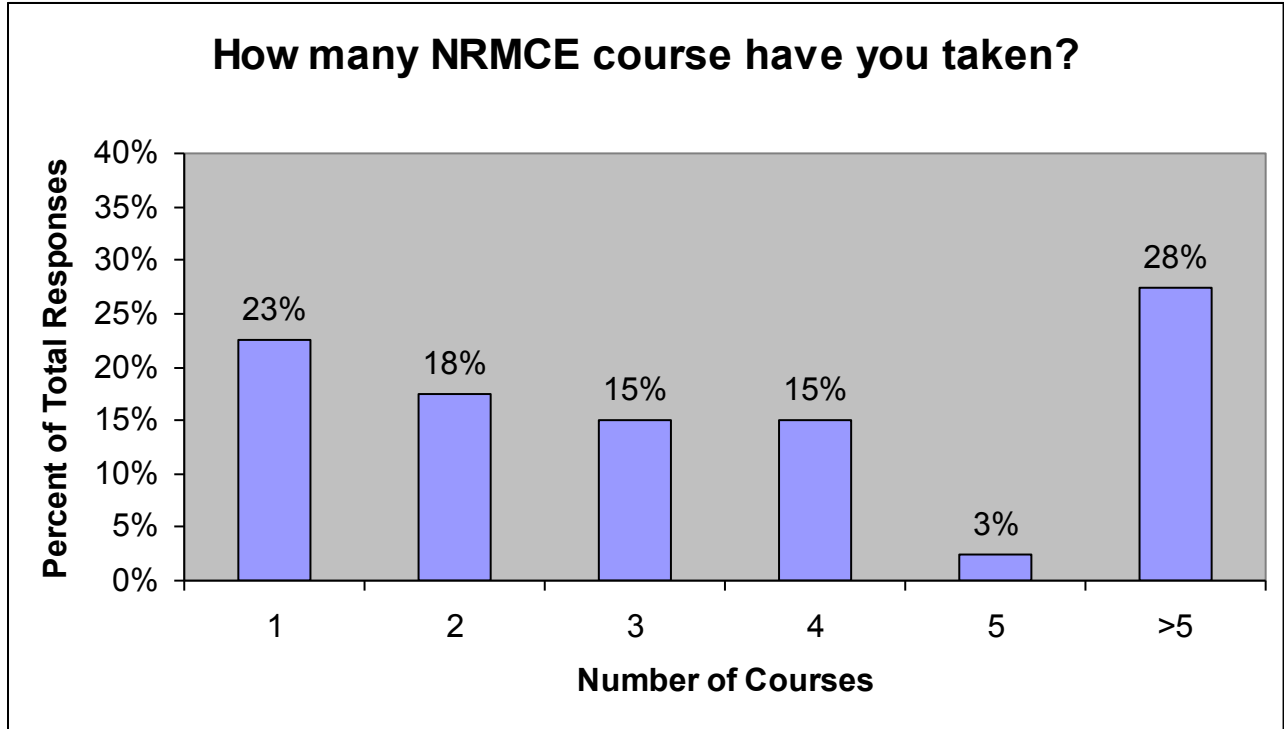


Figure 6 – Percentage of Courses Taken by Participants Surveyed



The comments and open-ended questions of the web survey provided information related to the most and least valuable characteristics associated with the NRMCE program (Appendix J – Web Survey Qualitative Information Summary). Survey respondents indicated that the most valuable components of the NRMCE program overall were: courses were practical and applicable, course material was up-to-date, and instructors were knowledgeable (Table 6).

Table 6 – Most Valuable Characteristics of the NRMCE Program Identified by the Web Survey

Web Survey Qualitative Component	Percentage of Total Responses
Most Valuable Characteristics <ul style="list-style-type: none"> • Courses were practical and applicable • Course material was up-to-date • Instructors were knowledgeable • Courses were offered in a good geographic location • Registration was easy • Courses were of good economic value • Class sizes were adequate 	42% 16% 16% 11% 5% 5% 5%

Archival Enrolment Data – Analysis

In order to analyze enrolment rates, the evaluation team requested the opportunity to review archival data. Enrolment rates for the entire CE department over the past three years (2000-2003) were provided. Specific to the NRMCE program, the only information available were enrolment rates for 2002/2003, and courses offered versus courses implemented during that period.

Archival Enrolment Data – Interpretations

Archival enrolment data showed that overall CE enrolments increased on average 27% over the last three years, however, it is not clear to what extent specifically the NRMCE course enrolments increased or decreased over that same period of time. The evaluation team noted that 46 NRMCE courses were offered in 2002/2003 and of that, 91% were actually implemented. The evaluators recognize the limitations of the archival data and data collection systems, in that the data is not easily obtained nor does it appear to be complete, creating instability and unreliability.

SUMMARY OF EVALUATION FINDINGS

The data collected for this analysis was compared and cross-referenced in order to increase the validity of the findings and recommendations. All instruments used were designed to meet the objectives of this analysis by identifying the strengths and limitations of the NRMCE program. Overall, the feedback from a variety of sources indicated a positive program experience. Four key strengths or positive program attributes emerged and are as follows.

First, staff was friendly and promptly followed up on client requests; however, it was noted that program knowledge was limited and often vague. During the analysis of the semi-structured staff interviews, staff shortages were identified creating an inability for the core staff to devote adequate time and resources to the program. For example, one staff member stated that,

It sure would be nice to have more full-time staff here. The support staff are great, but it would be nice to pursue more areas. There is a lot more work and courses that we could probably offer, but there just isn't enough time or manpower to do it.

A second positive finding was that the program offered timely and quality courses on subjects that were relevant and applicable. According to the Coordinator and the Manager, the program strove to be responsive to changes in the forest industry and to meet the needs of the clients. Relying on subjectivity, assumptions regarding responsiveness had been made by program staff. The program had no feasible method to confirm or challenge this notion through consistent data collection and analysis. When polling stakeholders from the focus group, however, a high level of satisfaction with the courses offered was confirmed.

A third strength was instructor satisfaction among stakeholders. A focus group participant related that, “I went back to the office and tried a few things but got stuck and I was able to call [the instructor] and he helped me out; and that was just great to get the support afterwards.” While instructors were offering quality courses, one limitation to this strength was that the courses did not progress (once students had taken a series of core courses there was no next step for their continuing education). A focus group participant stated a need to “set up relevant certificates or diplomas for people who have been working in the field for years and need or want... to continue in certain areas.” In support of this, 85% of the clients surveyed indicated that they would enrol in another NRMCE course.

A fourth positive finding was that students saw the program and its courses as good value for the tuition paid. While most students agreed with this finding and stated that they would recommend the courses to others, there were some frustrations with course registration such as lack of access to fax machines (e.g. by grad students trying to register), or the absence of online registration for any courses. Additionally, an important limitation repeatedly identified was that the program lacked effective marketing. Many focus group comments related to the difficulty finding out about course and conference information. For example, a focus group participant said, “I had a heck of a time finding the information. I couldn’t find the information on the UNBC website until someone finally sent me the actual link.” Other participants agreed, adding that they found out about courses and conferences haphazardly through co-workers, grad functions, and coincidental email lists even though they had been previous clients. It was left to the student to find out about the program. In

spite of this, 87% of the clients surveyed indicated that they would recommend the NRMCE courses to others.

EVALUATORS' RECOMMENDATIONS

The program evaluation has generated the following recommendations:

1. Continue to maintain friendly and helpful core staff and enhance opportunities for staff to learn more about the program.
2. Continue offering timely, relevant, and applicable courses and conferences while providing good tuition value and course quality. For client convenience and cost effectiveness, establish an online system for course and conference registration.
3. Continue to provide quality instruction while starting to offer courses that progress in a learning series allowing returning clients to advance their knowledge and to aid in the calculation of future enrolment projections.
4. Maintain and enhance existing client email lists in order to effectively market upcoming courses to past clients as well as to act as a tool for future evaluations.
5. Initiate a relational information system that tracks client information and input from course evaluations ensuring increased responsiveness.
6. Ensure that staff and resource levels are adequate in order to maintain and advance the NRMCE program.

EVALUATION LIMITATIONS

Although the evaluators have confidence that the evaluation findings are valid, they acknowledge that limitations exist. Throughout the document some limitations have been addressed and these include evaluator inexperience, program familiarity, small sample sizes, and limited evaluation resources, to name a few. Furthermore, some large-scale limitations also emerged. These included:

- **Time** – Pilot study time constraints prevented the evaluators from formally providing interim findings for comparison and cross-referencing with key stakeholders. It also limited the evaluation team’s ability to interview a more representative sample including, for example, course instructors.
- **Statistics** – The absence of a control group hindered data comparisons. Although, stakeholders indicated many positive benefits received from the program there may have been equally positive experiences for people outside of the program.
- **Scope** – As this was a student project with a limited scope, it was difficult to adequately measure and cross-check external influences and factors that could foster or hinder the program, such as union issues, individual personalities, and competition with other institutions of learning.

APPENDICES

Appendix A – NRMCE Course List

- GPS and OziExplorer Mapping Software
- Mountain Pine Beetle Detection and Management
- Spruce Beetle Probing Accreditation
- Root Rot Tracker Software
- Stand Tending
- Douglas Fir Beetle Detection and Management
- Intro to Timber Cruising
- Regeneration Issues in Partial Cutting
- Forest Law for First Nations
- Intro to Remote Sensing
- Basic Forest Soils
- Aquatic Ecology
- Forest Pathology Recognition
- Herbicide Application
- Forest Road Construction Practices and Procedures
- Stream Bank Restoration Using Bioengineering Techniques
- Wildlife Chemical Immobilization and Post Mortem
- Communities and Natural Resources in Transition- Linking Social Sciences, Decision Makers and Practitioners for a Sustainable Future (a public forum).

Appendix B – Letter of Permission

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Office of the Vice President (Administration and Finance)
3333 University Way
Prince George, BC V2N 4Z9

Telephone: (250) 960 5567
Fax: (250) 960 5659
Email: cochran@unbc.ca



January 30, 2004

Hilary Leighton
393 Burden Street
Prince George, BC
V2M 2H4

Dear Hilary,

This letter is in response to your request to conduct program evaluation research at the University of Northern British Columbia on the Natural Resource Management program in Continuing Education for your Masters in Education project.

After discussing your proposal with the President's Executive Council, you have my permission as Acting Director of the Continuing Education Department, to conduct this study with your fellow graduate students, Terry Robert and Glen Thielmann.

I would be interested in receiving your results.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sharon Cochran', is written above the typed name.

Dr. Sharon Cochran
Vice-President (Administration and Finance)
University of Northern British Columbia

Appendix C – Research Questions used to Address the Evaluation Objective

Program Stage	Program Characteristic	Research Question
Development	Historical Impacts	<ul style="list-style-type: none"> • What positive and negative impacts did the program development phase have on the current program? • What potential changes could be made to the current program to mitigate these historically based impacts?
Implementation	Course Design Impacts	<ul style="list-style-type: none"> • What positive and negative impacts has course design had on the current program? • What potential changes could be made to the current program to mitigate these course-based impacts?
	Administrative Impacts	<ul style="list-style-type: none"> • What positive and negative impacts has the administrative design had on the current program? • What potential changes could be made to the current program to mitigate these administrative impacts?
	Client Needs	<ul style="list-style-type: none"> • Does the current program reflect the needs of the client? • What potential changes could be made to the current program to meet the clients' needs?
Assessment	Responsiveness	<ul style="list-style-type: none"> • Does the current program reflect and respond to the positive and negative aspects identified by clients and staff? • What potential changes could be made to the current program to mitigate these accountability impacts?

Appendix D – SFU Standard Consent Form

SIMON FRASER UNIVERSITY

Form 2- Informed Consent By Participants In a Research Study

The University and those conducting this research study subscribe to the ethical conduct of research and to the protection at all times of the interests, comfort, and safety of participants. This research is being conducted under permission of the Simon Fraser Research Ethics Board. The chief concern of the Board is for the health, safety and psychological well-being of research participants.

Should you wish to obtain information about your rights as a participant in research, or about the responsibilities of researchers, or if you have any questions, concerns or complaints about the manner in which you were treated in this study, please contact the Director, Office of Research Ethics by email at hweinber@sfu.ca or phone at 604-268-6593.

Your signature on this form will signify that you have received a document which describes the procedures, possible risks, and benefits of this research study, that you have received an adequate opportunity to consider the information in the documents describing the study, and that you voluntarily agree to participate in the study.

Any information that is obtained during this study will be kept confidential to the full extent permitted by professional ethics. Knowledge of your identity is not required. You will not be required to write your name on any other identifying information on research materials. Materials will be maintained in a secure location.

Title: UNBC Continuing Education Program Evaluation
Investigator Name: Hilary Leighton
Investigator Department: SFU MEd Prince George Cohort

Having been asked to participate in a research study, I certify that I have read the procedures specified in the information documents, describing the study. I understand the procedures to be used in this study and the personal risks to me in taking part in the study, as stated below:

RISKS AND BENEFITS:

- **Program improvement**

I understand that I may withdraw my participation at any time. I also understand that I may register any complaint with the Director of the Office of Research Ethics or the researcher named above or with the Chair, Director or Dean of the Department, School or Faculty as shown below.

Department, School or Faculty: Chair, Director or Dean:
8888 University Way, Simon Fraser University, Burnaby, British Columbia, V5A 1S6,
Canada

I may obtain copies of the results of this study, upon its completion by contacting:

Hilary Leighton
UNBC Marketing Coordinator
(250) 960-6443

I have been informed that the research will be confidential.

I understand that my supervisor or employer may require me to obtain his or her permission prior to my participation in a study of this kind.

The participant and witness shall fill in this area. Please print legibly

Participant Last Name:	Participant First Name:
<input type="text"/>	<input type="text"/>
Participant Contact Information:	
<input type="text"/>	
Participant Signature:	Witness (if required by the Office of Research Ethics):
<input type="text"/>	<input type="text"/>
Date (use format MM/DD/YYYY):	
<input type="text"/>	

Appendix E – Web Survey Email Consent

Sent: Tuesday, February 17, 2004 5:33 PM

Subject: UNBC Continuing Education Survey

Hello,

We are conducting a survey of individuals who have participated in the University of Northern British Columbia's Continuing Education Natural Resource Management courses. The survey is intended to show the benefits and constraints of the courses as well as lend an improvement-focus.

This research is being conducted under the permission of both Simon Fraser University Ethics Board and UNBC's Acting Director of Continuing Education, the Vice-President of Administration and Finance.

By filling out this survey and clicking on the "send form" button at the end of the survey, this will signify your informed consent to voluntarily participate in this evaluation. Any information obtained during this study will be kept confidential. Knowledge of your identity is not required. When you send your completed survey, your return email will not include your username or email address. Surveys will be maintained in a secure location.

We hope that you will take the time to complete this survey (estimated 5 minutes) as we value your opinion, comments and thoughts. Thank you in advance for your time and consideration!

Hilary Leighton
MEd Candidate
Marketing Coordinator, UNBC Continuing Education

Survey Link

http://sfu.ca/~terobert/student_survey.htm

Appendix F – Observational Checklist

Administrative Staff Observational Checklist

Name _____

Position _____

Signed Consent Form? Y ___ N ___

Observation Date _____ Time: _____

Positive Behaviours	Yes	No	COMMENTS
Answers telephone in friendly manner			
Responds to questions in friendly manner			
Responds to questions in helpful manner			
Is knowledgeable of the program			
Follows-up promptly with clients			
Is organized			
Demonstrates verbal confidence			
Demonstrates physical confidence			
Takes initiative/leadership			
Reports concerns/complaints			
Is improvement focused			
Other observations to note:			

Appendix G – Focus Group Topic Questions

Topic 1. Program Delivery

Use a flip chart to address the topic questions.

1. Are there any problems with NRMCE courses that you aware of?
2. How might UNBC further improve the NRMCE courses offered?
 - Dialogue starters:
 - Timing – Are they offered at the right time of year/month/day?
 - Course Content – Is it at the appropriate level?
 - Course Subject – Do courses reflect their needs? Are they progressive?
 - Instructor Quality – Are instructors competent, clear and enthused?

Topic 2. Program Administration

Use a flip chart to address the topic questions.

1. Are there any problems with course content that you aware of?
2. How might UNBC further improve the administration of NRMCE courses?
 - Dialogue starters:
 - Registration – What method (email, phone...) do you prefer?
 - Pre-course information – How far in advance would you like to receive information about the course?
 - Logistics – Was parking easy? Did you know where to go in advance? Was registering easy? Did you get a receipt, questions answered quickly?

Appendix H – Semi-Structured Interview Questions

Question 1

What would you like to see happening in the Natural Resource Management Continuing Education program a year from now? What about in two years?

Question 2

If someone were moving to Prince George and asked you about the strengths of the Natural Resource Management Continuing Education program, what would you say? What would you report concerning any needed improvements?

Question 3

Finish this statement: If you had a “magic wand” and could change any aspect, what changes, if any would you make to this program?

Question 4

What, if anything, should the Natural Resource Management Continuing Education program do more of, better, or differently?

Question 5

Please describe any issues that, in your view, the Natural Resource Management Continuing Education program should be addressing that are not now being addressed?

Appendix I – Web Survey



*Natural Resource Management
Continuing Education
Student Survey*

This Survey is Anonymous. Your name and e-mail address will not be attached to the submitted survey.

We are interested in your feedback on the University of Northern British Columbia Natural Resource Management Continuing Education program in order to continue offering quality services.

The survey is designed to identify the strengths and weaknesses of the University of Northern British Columbia Natural Resource Management Continuing Education program. By completing and submitting this survey you are providing consent for the use of the information for this purpose. Please take five minutes to fill this out.

Thank you for your cooperation.

Instructions:

Please select the answer that best describes your overall experience with the UNBC Natural Resource Management Continuing Education program. To select an answer use the drop down windows in the *Answers* column below. Further information can be added to your answer in the *Comment* column. When you have finished the survey, click on the *Send Form* button at the bottom of the page.

If you have taken more than one course, base your answers on your general impression of all your courses.

Course Design		
Question	Answers	Comments?
1.	The instructor was clear about the objectives of the course.	<input type="text"/>
2.	The course met my expectations.	<input type="text"/>
3.	The course content was appropriate for me.	<input type="text"/>
4.	There were enough activities to give sufficient practice.	<input type="text"/>
5.	The course material was presented in a clear manner.	<input type="text"/>
6.	The difficulty level of the course was appropriate.	<input type="text"/>
Course Results		
Question	Answers	Comments?
7.	I successfully accomplished the objectives of this course.	<input type="text"/>
8.	I will be able to use what I learned in this course.	<input type="text"/>
9.	I would recommend this course to others.	<input type="text"/>
Program Management		
Question	Answers	Comments?
10.	Registration for the course was easy.	<input type="text"/>
11.	Any problems I had were dealt with promptly.	<input type="text"/>
12.	Administrative support was helpful.	<input type="text"/>
13.	My first impression of UNBC was positive.	<input type="text"/>
14.	I received the necessary course material in a timely manner.	<input type="text"/>
15.	The course was good value for the tuition cost.	<input type="text"/>

Other Information		
Question	Answers	Comments?
16	How many UNBC Natural Resource Management Continuing Education courses have you completed?	<input type="text"/>
17	Would you take another UNBC Natural Resource Management Continuing Education Course?	<input type="text"/>
18	How did you learn about the UNBC Continuing Education program?	<input type="text"/>
Additional Comments		
Question	Comments?	
19	What other subjects or courses would you be interested in learning through the UNBC Natural Resource Management Continuing Education program?	
20	What did you find the MOST valuable about the course?	
21	What did you find the LEAST valuable about the course?	

Thank you for your participation.
 Hilary Leighton
 Marketing Coordinator
 UNBC Continuing Education

Appendix J – Web Survey Qualitative Information Summary

Web Survey Qualitative Component	Percentage of Total Responses
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<p>Most Valuable Characteristics</p> <ul style="list-style-type: none"> • Courses were practical and applicable 42% • Course material was up-to-date 16% • Instructors were knowledgeable 16% • Courses were offered in a good geographic location 11% • Registration was easy 5% • Courses were of good economic value 5% • Class sizes were adequate 5% 	
<p>Least Valuable Characteristics</p> <ul style="list-style-type: none"> • Course material was not covered adequately due to time limits 57% • Course material was not provided in advance 29% • Room size was inadequate 14% 	
<p>Courses Clients are Interested in Attending</p> <ul style="list-style-type: none"> • GIS 27% • Database Management 20% • Silviculture and Sampling Techniques 20% • Forest Soils 13% • BEC Classification 13% • Growth and Yield 13% • Road Engineering 7% • Fish Habitat Assessment 7% • Watershed Management 7% • Stream Inventory Procedures 7% • Community Economic Development 7% 	