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A. Names, Affiliations, Academic Status, and Signatures of All Members of the Group

Contact Person:	Dr. Pierre Zundel, Dean Renaissance College,
	University of New Brunswick
Address:	811 Charlotte Street
	P.O. Box 4400
	Fredericton, NB E3B 6C2
Phone:	(506) 447-3334
Fax:	(506) 447-3224
E-mail:	zundel@unb.ca
Signature:	Fiere Fundel

Name	Academic Status	Unit/Department & Institution Signature
Mark Bishop	College Coordinator	Renaissance College, UNB
Mike Carr	Part-time Instructor	Renaissance College, UNB Worked
Dr. Gerry Clarke	Professor	Faculty of Education & Renaissance
Jo Anne	Administrative	Renaissance College, UNB John Colford
Colford Kathleen Fong	Assistant Secretary/ Receptionist	Renaissance College, UNB A Fort
Ratificel 1 ong	Secretary/ Receptionist	140
Jonathan Foster	Experiential Education Coordinator	Renaissance College, UNB
Rick Hutchins	Part-time Instructor	Renaissance College, UNB
Dr. Victoria	Part-time Instructor	Renaissance College, UNB Victoria Mytor
Moon Joyce Dr. Neyda	Part-time Instructor	Renaissance College, UNB Mayor H LANG.
Long Eamonn	Instructor	Renaissance College & Faculty of
Lynch		Business Administration, UNB
Dr. Thomas Mengel	Associate Professor	Renaissance College, UNB
Valerie Reeves	Instructor	Renaissance College & Faculty of Science, UNB
Carol Roderick	Part-time Instructor	Renaissance College, UNB
Dr. Jennifer	Professor	Faculty of Education & Renaissance Quality Department
Pazienza		College, UNB
Dr. Al Sharp	Dean of Science	Faculty of Science & Renaissance College, UNB
Dr. Richard	Coordinator, Retention	College of Extended Learning &
Spacek	Programs	Renaissance College, UNB
Dr. John Valk	Senior Teaching	Renaissance College, UNB
	Associate	XI-3

B. Precise Nature of the Collaboration

At Renaissance College (RC), collaboration is a way of life. The development of outcomes-based learning at the whole program level at RC has involved intense collaboration. Faculty and staff together have crafted the overall structure. Often working closely with students, we have 1) selected, described and periodically modified the learning outcomes that guide our work; 2) developed program-level themes (e.g., the *poverty*, *wealth*, and *health* themes that have run through College courses for the last three years, respectively); 3) designed individual courses; and 4) monitored the success of and redesigned the program. This collaboration has occurred during individual teaching team meetings, in biweekly staff/faculty meetings, during the College-wide planning retreats held three times per year, and in special groupings of faculty (e.g., the six "keepers of outcomes" who serve as inhouse consultants and repositories of information about the College learning outcomes).

One of many examples of collaborative design and delivery is the Learning Portfolio process used to assess student growth and competency in the learning outcomes. The portfolio has grown from something that was to be produced in third year without course credit to a series of three courses that progressively grow in expectations in each year of the program. The Portfolio Team has worked with other faculty members to ensure they provide explicit opportunities for students to collect evidence of and to begin interpreting their growth in the learning outcomes in ways that feed into portfolio creation. All RC faculty members assess graduating students' portfolios and attend public presentations at which external assessors provide feedback to students on their portfolios. The College planning retreat held each spring evaluates each year's portfolio work and proposes modifications and improvements. In this way, design, delivery, monitoring, and redesign are collaboratively carried out and lead to substantial improvements over time.

C. Abstract

Recent demands for increased accountability and transparency have spurred the move toward outcomes-based learning, making it a growing trend in post-secondary education. Outcomes-based learning supports student diversity, clarifies program deliverables, and encourages an integrated and seamless curriculum. Renaissance College's (RC) interdisciplinary leadership program provides a liberal education as defined in six learning outcomes: Effective Citizenship, Multi-Literacy, Problem-Solving, Personal Well-Being, Social Interaction, and Knowing Self and Others. Student growth and competency in the learning outcomes is assessed using both in-course and program-wide approaches such as portfolios, in-class assessments, co-curricular and extra-curricular activities, and external assessors. This paper describes the design and delivery of RC's outcomes-based learning program, and examines its impact on students, who readily attest to its positive influence on their learning:

I really like Renaissance College. It is the way I like to learn and the way I like to interact. I have learned a lot about the way I think, what I stand for, and what I believe in. It has been huge for me to realize that I think that I know a topic, and to learn that there is so much out there that I don't know, and then I find out that with more information I might have a different perspective on the topic. (First year RC student)

D. Paper

Institutional Context

Reductions in government spending, increases in tuition fees, concerns about institutional accountability, and demands to make education workplace-relevant are only a few of the many forces currently having an impact on post-secondary education. These forces have led to growing pressures on post-secondary institutions to attend more closely to the quality and relevance of their students' experiences and related educational outcomes (Andres & Finlay, 2004; Mount & Bélanger, 2001, 2004; Walters, 2004; Wellen, 2005).

In response to these forces, the Canadian Education Statistics Council (CESC)—a partnership between the Council of Ministers of Education in Canada and Statistics Canada—initiated the Pan-Canadian Education Research Agenda to bring attention to the important issues of contemporary concern in Canadian education. This agenda identifies learning outcomes as one of seven national research priorities (CESC, 1999). To improve educational outcomes in Canada, Crocker (2002) explains that

We need to know more about what constitutes the full range of valued outcomes, how these can be measured, what factors have positive or negative impacts on outcomes, how these act in the complex environments of schools and classrooms, and what policy changes contribute to the development of the processes most conducive to outcomes development. (p.33)

Our project, outcomes-based learning at the whole program level, addresses part of the research gap that Crocker (2002) has identified by modeling one way of determining and implementing effective learning outcomes, assessing student growth and competency in relation to these outcomes, and detailing how such an approach to outcomes-based learning functions within a complex university context.

The initial planning and development of Renaissance College began in 1999, with a committee of approximately 45 faculty from various departments within UNB interested in developing an alternative interdisciplinary leadership degree program defined by collaborative teaching, active learning, and explicit learning outcomes. Many of these faculty members perceived that traditional degree programs lack coherence and integration, and do not properly address students' needs.

In the fall of 2001, with the support of a private grant of \$1.875 million from the J. W. McConnell Family Foundation, RC became Canada's first and only undergraduate interdisciplinary leadership studies program. The college mission is to provide high quality education for UNB students, educate leaders for the new millennium, and create an exemplary model of post-secondary education. Students follow an intensive and comprehensive curriculum to complete a Bachelor of Philosophy in Interdisciplinary Leadership Studies (BPhil). Courses and internships offered during two consecutive summers allow students to complete their degrees in three years. Students are exposed to a multitude of perspectives, with courses in areas such as World Views and Religions; Natural Science, Technology, and Society; Cross-Cultural Perspectives of Leadership; Images and Insights; Mathematical and Economic Approaches to Problem-Solving; Citizenship and Community Issues; and Integrative Forum. Forty percent of

the program's academic credits are electives taken outside the College leading to a minor in a traditional discipline.

Goals of the Project

The goal of this project is to increase the effectiveness of undergraduate student learning by providing a unique degree program centered on explicit learning outcomes. While the BPhil program was being designed, a team of faculty delegated to outline the curricular goals of the program developed the RC learning outcomes (Zundel et al., 2000). These learning outcomes identify what students should be able to do by the completion of their undergraduate study.

RC believes that effective learning outcomes must be observable, hierarchical, explicit, and relevant (Zundel & Needham, 2000). To know students have learned, we need to *see* or *observe* them doing something. We therefore express our learning outcomes in terms of student performances, using words such as *describe* or *design*.

Learning outcomes are *hierarchical* in that they are broad and comprehensive, and consist of components that students can achieve incrementally. While it is difficult to measure growth and competency for a whole outcome (e.g., Knowing Self and Others), by dividing a learning outcome into its central components, we can see whether students are achieving each of the parts. Being able to demonstrate cumulative parts of a learning outcome gives us an idea of student progress in relation to the whole.

Learning outcomes must be *explicit*: written down, clearly communicated, and agreed upon. Making our learning outcomes explicit helps us teach effectively; facilitates mutual understanding; and increases the accountability of students, faculty, and the program. Clearly stating the outcomes allows students to know in detail the university's educational expectations. In this way, the descriptions of the outcomes become tools to guide student development and learning. They also become a common currency in team teaching situations, helping to define team goals.

Learning outcomes are *relevant:* central to being an educated person and leader, appropriate to the program goals, and relevant to students' current needs and life goals. We want to focus on learning in significant areas, especially since faculty and student time and resources are in short supply.

On the basis of these criteria, RC has developed six learning outcomes:

- Effective Citizenship
- Problem-Solving
- Multi-Literacy
- Personal Well-Being
- Social Interaction
- Knowing Self and Others.

Brief descriptions of each outcome are provided in Appendix A, with full descriptions in the Learning Outcomes Document (RC, 2005). This document guides student learning and assessment, and provides important benchmarks for success. Using the learning outcomes, faculty and students engage one another in an open learning environment, where they question, discuss, and analyze real issues. The outcomes allow the College to deliver a seamless

curriculum, where students' coursework, internships, co-curricular and extra-curricular activities, and personal lives interconnect. We believe outcomes-based learning at RC helps students to develop the skills, values, and beliefs necessary for leadership in the new millennium.

Project Description

How Learning Outcomes Are Developed and Managed in the College

The learning outcomes are periodically revisited and revised by faculty, staff, and students to ensure that they are

responsive and flexible, not only in terms of their interpretation in relation to specific discipline areas, but also in relation to the ways in which they are pursued and addressed in the learning and teaching settings. In this sense, defining learning outcomes is not a "once and for all" activity, but an iterative process. (Hussey & Smith, 2003, p. 358)

Each new version is worked on collaboratively and must be agreed upon by the RC Council, on which both students and faculty are represented, before it can be used as the basis for curriculum development. Thus, the College collectively creates and owns the outcomes.

Each learning outcome has one permanent faculty member assigned as its "keeper." These faculty members are selected based on their related expertise and interest, and are responsible for

- 1. collecting reference material to define, build, and assess the outcome(s);
- 2. ensuring that students have opportunities to develop their outcome(s) in each year of the program;
- 3. keeping faculty and students aware of any information that may further the College's understanding the outcome(s); and
- 4. collaborating with the other keepers to train outcome assessors.

In addition to the keepers, all faculty meet bi-weekly to discuss student progress in the learning outcomes. Each year in April, September, and December, faculty and staff meet to advance faculty understanding of and collaboration in the outcomes, and to ensure that we are addressing each outcome in a quality manner throughout the curriculum.

How We Facilitate and Assess Learning Outcomes

Students graduating from RC must demonstrate competency and growth in all six learning outcomes. Competency is the ability to *do* the outcomes, whereas growth implies an increase in competency over the duration of a student's program. Assessment of students' growth and competency within the learning outcomes is a collaborative effort that involves faculty assessing students, peer assessment, student self-assessment, and external assessment. Students regularly receive feedback on their performance in a variety of contexts including their courses (subject matter courses, leadership, and integrative forum), student internships, college life, and learning portfolios.

Subject Matter Courses

RC has six subject matter courses (see Table 1), each of which focuses primarily on a single learning outcome. These courses allow students not only to explore in detail the conceptual framework of each learning outcome, but also to learn about, develop, and gain competence in relation to the associated learning outcome. At this time, the Social Interaction outcome is developed in one of the courses described in the *Integrative Forum Courses* section.

Table 1. Outcomes developed in RC subject matter courses.

Course	Outcome Developed
Worldviews, Cultures, and Religion	Knowing Self and Others
Mathematical and Economic Approaches to Problem-Solving	Problem-Solving
Natural Science, Technology, and Society and Images and Insights	Multi-Literacy
Concepts of Enhancing Personal Well- Being	Personal Well-Being
Citizenship and Community Issues	Effective Citizenship

For example, the course Mathematical and Economic Approaches to Problem-Solving (Math/Econ) links with the Problem-Solving outcome. Course content relates to financial, economic, and sustainability analysis, and mathematical modeling. Very early in the course, we ask students to benchmark their Problem-Solving abilities. We then provide them with four additional opportunities to solve complex problems with the help of mathematical models. Examples of the analyses done include determining the most important factors influencing a rural physician's taxable income; discovering whether it is more financially attractive for the rural physician to move her practice to the city; and deciding where her practice is more socially, economically, and environmentally sustainable. These problems allow students to develop and demonstrate their skills, receive feedback on their performance, and learn about the Problem-Solving outcome.

Leadership Courses

Within RC, leadership links the six outcomes together as a meta-outcome—when students have mastered the six learning outcomes, they can *do leadership*. As the disciplinary focus of the program, we have five courses in the core program specifically about leadership. These courses develop students' understanding of leadership theory and practice, and provide them opportunities to apply their learning to community and college projects. We can see how the learning outcomes are incorporated into leadership courses by examining an excerpt from a

student reflection on his community leadership project in the course Leadership in Theory and Practice I:

Effective execution of the Problem-Solving outcome has been of serious use during this exercise. Personally, once I put the problem solving components into practice, it was evident to me that I made a serious amount of progress on the product as well as within myself. Problem-solving skills have also proven to be of general use in most if not all leadership techniques. It isn't realistic that all projects will function without fail; therefore it is essential for all good leaders to use problem-solving effectively and in the most positive fashion possible. (Mengel, 2006)

Integrative Forum Courses

Each semester, students participate in an integrative forum course to link their learning across the curriculum with the learning outcomes. Four faculty members team-teach these courses. Course content is focused on an overarching theme such as *poverty*, *wealth*, or *health* following a problem-based learning model (Barrows, 1996; Boud & Feletti, 1991; Evenson & Hmelo, 2000). Students work in groups on community, provincial, national, and global problems or issues related to the theme. Through the resulting project work, presentations, readings, reflections, and critical analyses, students explore complex and rich topics within the framework of one or more of the outcomes. Unlike in the subject matter courses, the learning outcomes developed by students in integrative forum activities are not always explicitly stated. Students can determine which learning outcome(s) to focus on based on which outcome(s) they perceive to be most relevant.

For example, this year's theme is *health*. First-year students were tasked with researching the current status of student well-being, and they subsequently compiled proposals centered on creating opportunities for students to increase their Personal Well-Being. This project required the students to incorporate learning from their Worldviews, Religions, and Cultures and Introduction to Leadership Theories and Concepts courses. Students were also required to consider the financial constraints that their proposals included, calling upon the skills they were learning in Math/Econ.

Student Internships

Students participate in internships during their two consecutive summers in the program to gain practical experience and provide another context in which to achieve their learning outcomes. Between first and second year, students take part in a Canadian internship during which they observe leadership in action and learn more about their potential career interests. Between second and third year, students are placed in another country (e.g., Bhutan, Thailand) for their international internship. The international internship broadens students' perspectives by allowing them to see the role of culture and context in decision-making, citizenship, and leadership practices.

To ensure that we create optimal learning experiences and to develop real world opportunities that match the RC learning outcomes, the internship hosts may be non-governmental organizations, private enterprises, or government departments. Many of these placements are developed using the extensive network of contacts of the interdisciplinary faculty team at the College. The College has collaborated with organizations such as Heritage Canada,

the Town of Inuvik, the Global Volunteer Network, the Slovenian Department of Education, and the Ministry of Education in Bhutan. To prepare for their internships, students negotiate their learning goals with RC faculty and a mentor in their host organization. Throughout their internships, students journal and prepare reports about their learning and experience. Mentors guide and tutor students in areas that will strengthen their knowledge and understanding in multiple fields and thus add high value to the student's undergraduate experience. Internship learning is brought into the academic stetting through public presentations in which students analyze how they have grown and gained competency in relation to the learning outcomes. Faculty members collaborate to assess and provide feedback on these presentations.

Many students find that their international internships provide particularly good opportunities to develop the Knowing Self and Others and Problem-Solving outcomes. When reflecting on her growth in the outcome Knowing Self and Others during her International Internship, Kelly Farish wrote:

It took me a while to identify some of the changes that I have seen in myself since being in the Dominican Republic. Some are positive and lessons that I can take back with me; others are rather unexpected, not necessarily negative, but some things that I will have to reflect and think about a lot more when I get home. . . . one thing that I have come to appreciate is the pace of life that I keep down here. There is not generally much of a choice to keep up an extremely active lifestyle, and it has been a drastic change from my overdrive mode in Fredericton. The time for reflection and discussion is something that I really enjoy—and have difficulty finding the time for normally. The internship has functioned as a reminder to downshift my hectic hurricane of a life, make time for other things that I enjoy, and give priority to things that I need to start including more of. More reading, more social interaction, and more taking time to relax!

College Life

RC views the classroom as only one of the places where students learn. Students are encouraged to work towards the learning outcomes through their co-curricular, extra-curricular, and personal learning experiences.

To encourage growth in the learning outcomes and to foster community, the college provides an active co-curricular schedule. For example, *Soup's On* is a weekly co-curricular activity during which a group of students (or mixed groups of faculty, staff, and students) plan, prepare, and serve soup for the college community. Each week students volunteer to facilitate the activity and take their turn preparing the meal. This is a way for students to gain leadership experience, and develop, for example, their Social Interaction and Personal Well-Being learning outcomes. In relation to extra-curricular activities, a student might use the learning gained from playing the lead role in a university theatrical production towards achieving his or her Multi-Literacy outcome by including it in his or her learning portfolio.

Similarly, students are encouraged to reflect upon learning no matter the context, whether informally tutoring a peer or volunteering in the Fredericton Jazz and Blues Festival. We help students see the learning happening in a variety of contexts and reflect on all their experiences to maximize the learning gained. One of the best ways we have found to acknowledge this learning is through the student learning portfolios and portfolio courses, in which students document their learning from these activities that may be relevant to achieving the learning outcomes.

Learning Portfolios

To graduate, students are required to produce a learning portfolio. As an integral component of the program, portfolios are the primary vehicle to facilitate critical self-reflection and integration of student learning. Students select entries from their curricular, co-curricular, and extra-curricular experiences to demonstrate their growth and competency in the learning outcomes. The learning portfolio helps students assume responsibility for and ownership of their own learning, self-assess, and understand and communicate the meaning of their undergraduate experience. Portfolios benefit the faculty by encouraging collaboration, facilitating assessment of student progress in multiple contexts, serving as a means for the college to examine its accountability and transparency, and helping to integrate student learning and experience.

Students enroll in a portfolio course during each year of the program. In first year, the course is one academic credit, in second year two credits, and in third year, three credits (at UNB, students receive three academic credits for completing a traditional semester-long course). A different faculty member teaches each of the three portfolio courses. These faculty members collaborate to ensure that the courses are cumulative and that students are developing a complete portfolio based on pieces taken from each course. These courses represent a progression in students' learning and understanding of both the learning outcomes and of themselves as learners. Each course represents an *epitome* in the sense used by Reigeluth and Stein (1983) in their work on elaboration theory: Each one is a *whole* but they build on each other by adding richness and complexity, and by growing expectations, leading the student gradually to meet the learning goals for the program. In the first two portfolio courses, students also undergo a formative evaluation of their progress in the learning outcomes. This helps students understand the extent of their growth, their strengths and weakness, and areas that require further attention.

In the final semester before graduation, students present aspects of their portfolios in a public oral presentation and submit them for a summative evaluation. This is the final and key way that students are assessed for competency and growth in each of the learning outcomes. Presentations may include textual and visual components, drawing examples from all levels of course work and the students' full range of learning experiences. Students then submit their complete portfolios for examination by a committee of internal and external assessors. External volunteer assessors include highly qualified members of the university and broader community such as professors from other faculties on campus, members of the government, and community members. Connecting with the community in this capacity allows us to calibrate our standards, helps to motivate students to do their best work, and provides additional sources of feedback.

Impact on Student Learning

Evidence from the subject matter course Math/Econ, student learning portfolios, graduate success, a recent external quality review, and a student survey indicate that students are achieving the RC learning outcomes.

An analysis of student performance in the Math/Econ course has yielded tangible evidence of substantial learning. This learning resulted from a combination of repeated cycles of problem-solving followed by feedback from instructors (Kuruganti & Zundel, 2004). Appendix

B contains graphs detailing student's improving abilities to demonstrate the Problem-Solving learning outcome, and related student comments.

The graphs present two years of data tracking student performance. The vertical axes show the cumulative proportion (as a percent) of the criteria for each outcome that students have successfully demonstrated. The horizontal axis records the number of attempts. Students are given four problems in the course in which they can demonstrate the outcome (i.e., four attempts). The upper curve in the graphs shows the cumulative proportion of students who have demonstrated the outcome at least once. The lower curve shows the cumulative proportion of students who demonstrated the outcome at least twice during the course. In each year, by the end of the course, a very high proportion of students have successfully demonstrated the Problem-Solving outcome.

Student learning portfolios provide concrete evidence of student competence and growth with respect to the College learning outcomes in a variety of contexts. Three excerpts from student portfolios showing development in the Social Interaction, Knowing Self and Others, and Problem-Solving learning outcomes are included as Appendix C.

Fifty to seventy-five percent of RC alumni go on to post-graduate studies. Our students have been admitted to the UNB, Dalhousie, and McGill law schools; the Dalhousie and Memorial medical schools; the Harvard Business School; the Kings College journalism program; the Vancouver Film School; and a number of professional undergraduate (e.g., UNB and St. Thomas education programs, McMaster's Child Life Therapy) and graduate programs (e.g., Carleton's International Development masters program, Royal Roads' Masters in Applied Leadership and Training, UNB's Masters of Education). A number of students also work in the non-profit, public, and private sectors (e.g., a Class of 2003 graduate is a reporter with *CBC North* in Yellowknife, NWT). The success of our alumni in such a broad variety of highly demanding post-graduate programs is an indication of RC's effectiveness.

In winter 2004, the College carried out a major external quality assurance review of its programs. The chief author of the external review report was Dr. Donna Engelmann, a professor and Acting Associate Dean for Academic Affairs at Alverno College. Dr. Engelmann is an expert in ability-based learning and assessment. Alverno College has been using explicit learning outcomes and portfolios for approximately 30 years and has been widely recognized for this work in the United States. The final report of the Review Team concluded that "Every one of the approximately 25 students and alumnae who were interviewed demonstrated an impressive ability to articulate what and how they learned."

In January 2006, we surveyed RC students to obtain their perspectives on outcomes-based learning. The instrument used asked for both quantitative and qualitative responses. The overall response rate was 58%. Students were asked to rate their growth and competency for each of the learning outcomes using a scale from 1 to 10, where 1 equals not competent/no growth and 10 equals very competent/considerable growth.

Results indicate that students in each cohort of the program (first, second, and third year) perceive that they have grown considerably and are increasing their competency in each of the learning outcomes. On average, students in their third year feel more competent and identify more growth during the program than do students in their first and second years of study. The graphs included as Appendix D summarize the results for each outcome. The x-axes display the year in program, and the y-axes show the average of how students rated their growth and competence.

To complement this data, we asked students about outcomes-based learning at RC in general. Using a scale from 1 to 10, where 1 equals disagree completely and 10 equals agree completely, students responded to four statements:

- 1. Courses that are primarily outcomes-based at RC facilitate effective learning;
- 2. Outcomes-based courses at RC incorporate active learning (simulations, projects, problem-based learning, self-directed learning, etc.);
- 3. Courses that are team taught at RC (i.e., Integrative Forum) help integrate learning from your other courses; and
- 4. Team teaching has a positive impact on your learning and classroom experience.

There was widespread agreement among students that outcomes-based courses at RC facilitate effective learning and incorporate active learning. Students also believed that teamtaught courses at RC (such as Integrative Forum) integrate learning across the curriculum and have a positive impact on their learning. Four graphs (see Appendix E) show the survey results, where the x-axes represent students' year in program, and the y-axes represent the students' average response to each statement.

To complement the quantitative data, in the survey we also asked students for qualitative feedback about how outcomes-based learning at RC impacts their education. The results were overwhelmingly positive. Samples of the student comments are included in Appendix F.

Findings from the student survey echo other student comments: Outcomes-based learning enhances student learning by providing academic challenge and a supportive learning community, and by making undergraduate study cohesive and coherent. These comments come from a study of the first year experience at RC (Roderick, 2003) and are included as Appendix G.

Adoptions by Other Groups

We see that outcomes-based learning at a whole program level has the potential to be attractive to other universities and applicable to a wide range of other contexts. Our model has already had an impact beyond the BPhil program, in other areas within UNB. Outcomes-based learning has recently been incorporated into the Bachelor of Integrated Studies (BIS) program, which is a customized degree program for mature students. Students in the BIS program complete a core of RC courses and a learning portfolio. Like the RC BPhil students, those in the BIS program are expected to demonstrate growth and competency in each of the BIS learning outcomes. Adapting the methods of RC BPhil outcomes-based learning to the BIS program has presented some exciting curricular challenges. For example, many students in the BIS program are part-time learners who complete the program via online instruction and other non-traditional formats, challenging many RC faculty to adapt their courses to distance education formats.

In the fall of 2004, RC launched a non-credit campus leadership program open to all UNB students. We plan to expand this to a credit certificate or minor program. This program would combine a service learning course with explicit learning outcomes and a portfolio reflect students' service learning, leadership instruction, co-curricular activities, and work experience.

Many RC faculty members are seconded from other departments within the university or have joint appointments. These faculty members have found that their experiences teaching in a

collaborative atmosphere at RC have influenced their teaching within their home/other departments and extended the impact of outcomes-based learning to other areas within UNB. We plan to maintain and build on the experiences of these faculty members and offer a model of effective teaching and learning:

I now use different methods, from just lecturing, to having them do problems in class, or group problems, or discussions, open discussions. . . . It's expanding the possibilities.

Being cross-appointed between Renaissance College and the Department of Chemistry has been an invaluable experience for me, in terms of my own professional development, my professional well-being, and my teaching abilities. Teaching in the open and studentcentered environment of Renaissance College has made me much more aware of the need to seek ways to make large, introductory chemistry classes more student-centered. As a result, I incorporate discussions into class time (even with 400 students), I use games to convey important information, and I encourage students to participate in lectures, through answering questions or offering their own examples and stories. Working at RC has also changed how I work with my colleagues in Chemistry. I am more aware of their needs and well-being and the well-being of the department as a whole. I have been involved with the design of a new faculty-based mentor program for chemistry majors, initiated lunch outings with the faculty and hope to work on the beautification of our building in the very near future. I am also conducting individual interviews with the faculty to best determine what abilities students should have coming out of first-year chemistry in order to be best prepared for subsequent chemistry courses (a move away from the traditional content-focused delivery). Collaborating with them is proving to be much more valuable than deciding what to do with the introductory courses on my own. It also gives me an opportunity to get to know my colleagues and their pedagogical philosophies.

In addition to joint and seconded faculty facilitating outcomes-based learning within new contexts, our graduates are doing so too. In a recent email (Monday Dec 12, 2005), Kate Ross explained how she has introduced RC's approach to learning outcomes into the Child Life Therapy program at McMaster:

McMaster has been going really well. I adore Child Life and am even more grateful for my Canadian Internship than I was a year ago, because it helped me find exactly what I want to do with my life. We started the program with two and a half months of classes such as Functions of Play, Family Dynamics, Group Functioning and Community. There are nine other girls in the program and the format is very similar to RC's. I actually brought the RC Outcomes to the program director and she loved them. Right now we are using them as discussion topics for class, but I think there is some thought of adapting them for this program.

In fact, the project is having impact beyond UNB to a regional academic governing body and the local Fredericton community. The Maritime Provinces Higher Education Commission, the main regulator of academic university programs in the Maritimes, has recently updated a major component of its quality assurance program. Each new program proposal is now assessed

for "clearly defined anticipated student outcomes at the programme level and a demonstration of their relevance, including (1) learning outcomes, (2) graduate outcomes, and (3) other outcomes, as deemed appropriate/relevant in the context of a particular programme" (Maritime Provinces Higher Education Research Commission, 2005, p. 9). The Commission also hosted a conference on the topic of outcomes-based assessment in fall 2004 to highlight the importance of this approach (MPHEC, 2004) and invited RC to present its model of outcomes-based learning as one example of the form programs could take (Zundel, 2004).

An example of how outcomes-based learning at RC is having an impact within Fredericton is provided by Leadership Fredericton's community leadership program. This uses an outcomes-based approach created and delivered in collaboration with senior faculty members of RC. An extract from Leadership Fredericton's letter of support (see Appendix H) notes the effectiveness of the program's design:

Within the Leadership Fredericton program, proof exists that the approach taken at Renaissance College is indeed "an approach that is attractive to others outside of the university setting" and that the outcomes-based approach to teaching/learning/assessment does "apply to a wide range of contexts," in this case, the development of community leaders and community leadership capacity. (Jeanne Geldart, January 2006)

Future Developments

We plan to further develop the BPhil program and outcomes-based learning at a whole program level by continuing to improve the management and assessment of the learning outcomes within the program. Our use of outside assessors for external validation of graduating students' competence and growth has been invaluable. We see the benefits of expanding this kind of evaluation by bringing it into the program earlier and having students engage in several activities that have them comparing their self-evaluations with external assessments. This would have the double benefit of further enhancing student learning as well as validating our assessments of student competence.

While students do bring in experience from their co-curricular activities and assignments in non-RC courses as evidence of achieving the RC outcomes, there is room to fine-tune this process so that this learning is more explicitly addressed and recognized in all our coursework. We hope in future to more systematically ask students to reflect on their experience in non-RC courses and co-curricular activities to connect learning being accomplished in all contexts.

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E. Supporting Documentation

Appendix A: Descriptions of the Learning Outcomes

These descriptions of the learning outcomes are intended to summarize a complex blending of formal knowledge, developing skills and competencies, and the personal qualities that each individual carries into the educational environment. These outcomes are multi-dimensional capacities that will be exercised across a broad spectrum of disciplines and within various pragmatic contexts.

Effective Citizenship: Through the acquisition and reflection of theoretical knowledge, the following abilities related to effective citizenship will be fostered in the student:

- Describe relevant conceptual frameworks and demonstrate ability to discern personal values and beliefs in relation to these frameworks;
- Illustrate how congruence occurs between personal values and beliefs and those of any particular community; analyze these relationships of self within the context of conceptual frameworks;
- Outline diversity of values and beliefs regarding citizenship (including one's own) within any example of community;
- Explain how the socioeconomic, historical, geographic, and political context of community influences how specific issues emerge and how response is generated;
- Apply knowledge of citizenship frameworks as a means of supporting groups to set goals and implement action toward their achievement.

Problem-Solving: To develop a repertoire of creative solutions to analytical, interactive, and design problems, students will learn how to employ a structured Problem-Solving procedure in conjunction with their interdisciplinary knowledge. They will be able to identify and apply the five main components of structured Problem-Solving: identification of personal decision-making process, problem definition, solution strategy formulation, implementation, and evaluation. In addition, students will learn how to research relevant information, access resources, identify constraints, and assess their solutions using criteria consistent with problem definition. Discernment will come as students make connections between personal values and cultural sources that inform the decision-making aspect of Problem-Solving. Students will demonstrate their capacity to uncover and analyze their own and others' assumptions and determine their impact on potential solutions.

Multi-Literacy: A multi-literate person is able to listen astutely and use oral presentation with the same sensitivity brought to writing. A critical "reading" of socio-cultural phenomena, including visual, numerical, and musical representations, is a hallmark of Multi-Literacy, as is the ability to make meaningful connections between realms that have been traditionally viewed as separate and disparate, such as private and public, home and school, nation and world. A multi-literate student will become conversant within a wide range of forms and media, for example cyber-art and cubist sculpture, sonnets and Haiku, hip-hop and music videos—and learn to access and interpret information as diverse as inflation rates and software user guides. The four key dimensions of Multi-Literacy in which students will demonstrate growth and competency are: (1) creating texts; (2) interpreting texts; (3) using appropriate norms in relation

to the chosen form of communication; and (4) interacting effectively for purposes of communication.

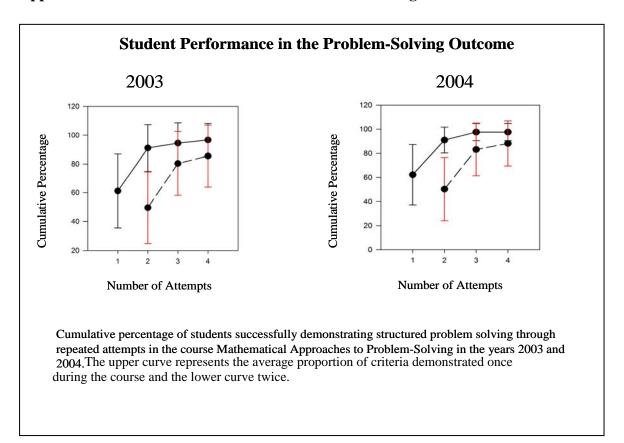
Personal Well-Being: The awareness and achievement of Personal Well-Being constitute an ongoing process that will be in dynamic flux over the course of a lifetime. Although there are many facets to this state of being, Renaissance College students will be encouraged to locate a sense of balance among the following areas of growth and development: spiritual, emotional, intellectual, physical, cultural, social, and occupational well-being. The Renaissance College conception of Personal Well-Being depends on recognizing how individuals influence and are influenced by the contexts in which they live. It requires a multi-dimensional practice of reflective consciousness, well-informed choice, ever deepening self-knowledge, and intentional action.

Social Interaction: Features of effective social interaction include astute observation of oneself and others, appropriate management of behaviour, and the capacity to bring the relevant social interaction theory to bear on any particular situation. In this framework, a high premium is placed on active and empathetic listening and the will to facilitate the best in others. Following the model used by Alverno College (1994), RC distinguishes three modes of Social Interaction: *task-oriented, exploration of divergent issues, and interpersonal interactions.* Within task-oriented social interaction, for example, students are assessed for progress through the stages of awareness, independence, and interdependence in four ways: (1) assessment and growth of group performance, (2) choosing group structure and process, (3) performing group roles, and (4) analyzing and managing conflict.

Knowing Self and Others: As an integrative outcome, the final goal of self-knowledge and wisdom is of sufficient depth and complexity that it must play out over a lifetime of endeavour. Many attributes and qualities of character will be exercised in achieving its progress, and students at Renaissance College will be provided with ample opportunities and support for developing these capacities, both in themselves and in others, and making the connection between this outcome and the exercise of responsible, enlightened leadership.

Students will be encouraged to reflect on their own experience and traditions, moving outward from there to explore other worldviews and spiritual practices. This will help to enhance their understanding of life as an intricate set of connections between individual and community and across the domains of the physical, emotional, spiritual, and intellectual. Students will be encouraged to adopt and sustain a practice of continuous self-examination in relation to their maturing knowledge of cultural context, expanding the range of their awareness and the repertoire of their life choices. The four key areas in which we assess Knowing self and others include (1) probing of self and understanding of others; (2) understanding worldviews and visions of life; (3) exploring traditions of wisdom and spirituality; and 4) deepening spiritual understanding, commitment, and practice.

Appendix B: Student Performance in the Problem-Solving Outcome in Math/Econ



Supporting student quotes:

In October, I surprised myself by using structured problem solving for my first major RC project, the Aboriginal forestry presentation... I made sure that we took the time to define the problem and brainstorm ways to solve it. Identifying our constraints and resources was very important to the execution of any possible solution.... In the end, we were all exhausted, but we had a final product that we could be proud of, and I do not think I could say that if we had not used structured problem solving.

With the help of the Renaissance College Learning Outcomes and a hindsight that is always much clearer then my usual vision, I am able to better reflect on my own abilities and experiences with "structured problem solving", using mainly the financial problems used in class.

Appendix C: Excerpts from Student Learning Portfolios

A second year student reflects on her growth in Social Interaction, showing a concrete understanding of the outcome and strong writing skills (part of the Multi-Literacy outcome):

I chose this particular piece [referring to her Canadian Internship reflection paper] as an exemplary representation of my growth in the Social Interaction outcome because it is a fine amalgamation of everything I learned over the course of three months I spent working for a local charity.... a tiring lesson in diplomacy, cooperation, and deference—all important components of effective Social Interaction... I acknowledged that [the President of the organization] she was a brilliant woman, one with a calculating and incisive mind perfectly suited to the project that she was spearheading. Simply recognizing her talents in addition to her faults improved our interactions immensely; I was able to consult her for advice, and she developed an interest in my own activities.... We may not have liked each other, but by the end of the summer, we had established a professional relationship that was healthy in that it was based on mutual respect for each other's backgrounds, aspirations, abilities.

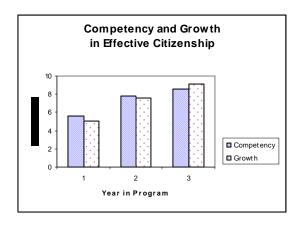
A third year student reflects on her development in the Knowing Self and Others outcome:

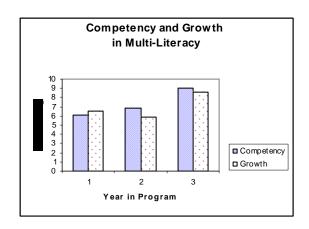
My growth in understanding myself as well as others has been consistent through my years at Renaissance. In first year, I started to see and experience other peoples' way of life through our Aboriginal project, world religions class and through the stories of my classmates ... One of my closest friends couldn't have had a more opposite upbringing [than me] but her friendship really made me realize that that really doesn't matter... I think I have learned the most from the differences and similarities we all hold between us. Meeting all these people really meant a lot to me and it helped me understand the importance of being true to myself, just like they all were true to themselves. It also allowed me to understand the importance of having an open mind, without which I don't think I'd be where I am today.

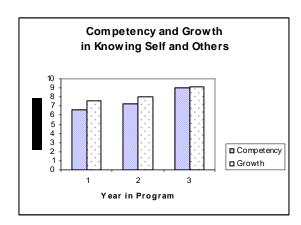
A third year student recalls how she dealt with the theft of her personal belongings during her Dominican Republic internship:

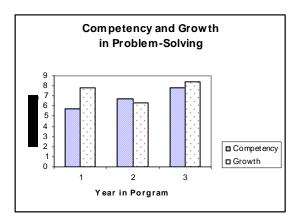
Over the course of the internship, the greatest challenge for me in terms of the learning outcome of Problem Solving was overcoming the belief that I had to be a rock... It seemed unfair of me to ask my other group members or hosts for help when they were clearly in the midst of dealing with their own problems... It was only after the break-in, when weeks of unresolved tension and silent unhappiness found a just cause for their release, that I fully came to appreciate the presence of the girls I was traveling with. Where before, they had been fun, compassionate, lively, and interesting, they became my anchors in an unfamiliar, mutable territory. Working together, we were infinitely stronger and more confident at facing problems than we had been alone and finally being able to admit that sometimes it was actually in everybody's best interest and a sign of greater maturity to share your burdens and ask for help was worth everything to me in the end.

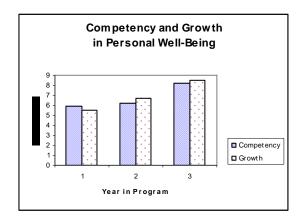
Appendix D: Students' Ratings of Their Growth and Competency in the RC Learning Outcomes

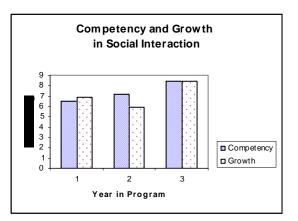




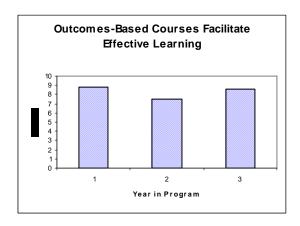


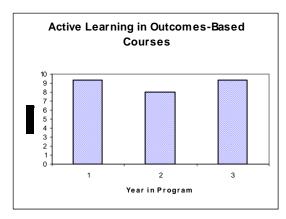


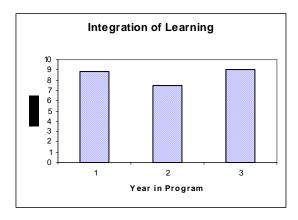


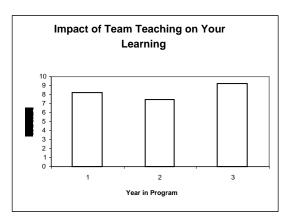


Appendix E: Students Ratings of Outcome-based Learning









Appendix F: Student Perspectives on Outcome-based Learning

"I like outcome-based learning because it recognizes that different students have different learning styles, different aptitudes, and different potentials. I have benefited from it because my strengths do not lie in traditional forms of teaching and grading."

"[This approach] encourages me to think. I have to formulate ideas and opinions on everything and that is an ultimate form of learning in my opinion."

"It facilitates effective learning and assists in our reflective practice. But sometimes it does not connect as well as it could."

"I like the focus that it lends to my learning environment. With outcome-based education, I learn more in a more lasting manner because my education has definite purpose and intent."

"It sparks interest and stresses a love for learning."

"[I like] the chance to step out of 'traditional' learning or teaching, and being able to improve myself in ways that surpass gaining knowledge or facts."

"With outcomes based learning you are able to actually connect things to your life."

"I find that I put much more thought and reflection into outcome-based learning, but concepts can be vague and ambiguous at times."

"Because outcomes based learning is based on growth, all students start at their own level, versus the generic expectations in a traditional program. We are able to strive to learn versus being forced to work."

"In traditional education it is difficult to apply the information into becoming a better person. Outcomes make me want to learn and grow; that on its own has worked wonders for me."

"It is so much more than memorizing facts and spitting them back. We are given the freedom to question what we are being taught and it is very evident how the things we learn will be useful in the real world."

"Team teaching brings people from diverse backgrounds together to add to the 'multi-disciplinary' outlook or RC but it can make grading confusing at times."

"It helps to integrate various courses together."

"Outcomes based learning gives me measures of my own learning, and skills to develop outside of the class."

"It provides tangible goals that students can pursue in a way that is relevant."

Appendix G: Student Comments from a Study of the First Year Experience (Roderick, 2003)

You know I am learning something here, and it is not just being a leader with a capital L. I actually think RC is more challenging than a regular university program. I've had my two electives and sat in on some other courses, and it is just like high school – you sit there, take a few notes, and you don't have to put much work in to get good marks. Here to get the same marks, I have to work my butt off. I have to write reports that make sense; I can't just waffle.... You have to experience the whole thing to get that it is a lot more challenging than normal school. You have to give more of yourself. You can't be afraid to voice your opinions.

I like RC because the profs are approachable. You know that during their office hours, they are not only going to be there, but they are going to actually help you if you talk to them, and you aren't going to have to stand in line either. They are all very intelligent and treat you like a human being. That is all I really want from them. On campus, there are so many students that you aren't really going to talk with your professor. The thing that I like the most about the way we are taught here at Renaissance College is that the teacher becomes sort of part of the class, it is not separated with them lecturing us. It is everybody sharing their ideas, and everybody learning from everybody.

I find it incredible that within the past 3 months I have been able to significantly increase my problem solving abilities. It is primarily through our Integrative Forum Module that this skill was exercised. Our group projects focused upon a problem, and forced us to come up with solutions within a limited time period. I found that the focus of our problem solving development was creativity. Our projects were in my mind, exemplary examples of creative problem solving.

We finished reading 'No Great Mischief' today in Forum and spent two hours discussing the main points and characters of the book and how it affected us personally. It was interesting because everyone had different points of view and it generated a lot of discussion. We were all very comfortable with each other; there were some people on the verge of tears because they were talking about personal experiences. That doesn't happen in a normal classroom. I was surprised that even Donna and Patrick [faculty members] were sharing with us personal experiences from their lives. [They] said that if we keep discussing like that then we are going to be an extremely successful group. That is encouraging.

One of the neat things is that all Renaissance College courses interconnect. In one class we'll touch on things mentioned in another course, and it will bring these things to light a lot better. A lot of what we needed for the Canadian Problem we learned about in other classes. We learned about minority groups like First Nations peoples, about native spirituality, and we got to go to Burnt Church in our World Cultures and Religions Class.

Appendix H: Letter from Leadership Fredericton



January 6, 2006

Ms. Aline Germain-Rutherford Director, Centre for University Teaching University of Ottawa 120 University # 106 Ottawa, ON K1N 6N5

Dear Ms. Germain-Rutherford:

It is the pleasure of Leadership Fredericton to provide this letter of support for the application of Renaissance College for the Alan Blizzard Award, designed to stimulate and reward collaboration in teaching and to encourage and disseminate scholarship in teaching and learning. In addition to giving preference to projects that involve active learning, we note that the criterion includes a preference for projects that have a potential impact beyond the originating institution.

The Renaissance College project describes the development of an outcomes based approach to curriculum design and its delivery over the whole BPhil program. As a spin-off benefit, senior faculty members from Renaissance College, and the team they recruited from Kinesiology, Education and Administration, assisted Leadership Fredericton during its start-up to develop an outcomes based approach to design/teaching/assessment. Faculty members continue to deliver parts of the curriculum and to provide strategic feedback, advice and guidance. This ensures that Leadership Fredericton's curriculum meets the needs of learners while delivering on the four learning outcomes, "understanding self, others, leadership and community". Renaissance College's involvement represents a unique collaboration among community, corporate and public sectors educators and trainers and the university community. Collectively they are making a valuable contribution to the development of Fredericton's next generation of community leaders and building leadership capacity within the community.

Jeanne Geldart Program Director

cc. Pierre Zundel, PhD., Dean Renaissance College

A program of the YMCA of Fredericton 28 Saunders Street Fredericton, NB E3B 1N1

> Phone: 506-462-3120 Fax: 506-462-3007 Email: jengeldart@nb.aibn.com www.leadershipfredericton.ca