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# Engagement and Movement of Essential Skills in Nursing Curriculum

Robyn Unwin

Contract Training and Continuing Education

Camosun College

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## Summary

Will training interventions in Essential Skills improve the skills of students in health programs and promote further engagement and movement in Essential Skills within the Nursing and Health and Human Services faculties? The Camosun pilot project targeted improvement of the Essential Skill (ES) levels of first-year students in health programs by providing ES assessments and training interventions in reading, numeracy and document use. The project was designed to assess the skill levels of 180 first year Nursing students, 50 first year Health and Human Services students from a variety of programs and 16 English Language Development students. Due to the heavy reliance on the use of documents in those occupations, a training intervention targeting Document Use was developed in order to provide extra support to students at risk of not graduating due to Essential Skills gaps. Results indicated that the two students who participated in the pilot moved from Level 2 to Level 3 in Document Use with significant collective score gains of over 100 points for each student.

## Business Case

With a looming labour shortage and jobs that demand higher skill levels, educational institutions are charged with producing more highly skilled graduates in greater numbers. Yet with 39 percent of Camosun Nursing students dropping out before graduation, the economic impact is significant for students, colleges and taxpayers (*Camosun College, Educational Research and Planning, October 2011*). Furthermore, according to research by economist T. Scott Murray, while nursing occupations demand the highest level of literacy skill of any occupation in Canada, a significant proportion of nurses do not currently possess the skill level required. The literacy skill shortage for nurses is the highest for any occupation in Canada. (*T. Scott Murray, DataAngel Policy Research, June 2010*).

Since 2003, Camosun College has undertaken significant work in Essential Skills program design, development and delivery, and has demonstrated experience in the management and administration of multi-year, multi-partner ES projects. This includes participation in numerous national projects with the Office of Literacy and Essential Skills (OLES) and Human Resources and Skills Development Canada (HRSDC), provincial initiatives with the British Columbia Ministry of Advanced Education and British Columbia Industry Training Authority, and regional projects engaging sector councils and community service providers. These projects demonstrate Camosun's capacity for creating partnerships, working with diverse client groups and championing Essential Skills in multiple sectors.

## Partnerships

Within the College, the pilot project created an opportunity for building internal partnerships among College leadership and faculty. Collaboration with the Dean and Associate Dean of Health and Human Services (HHS), department chairs, and faculty of the Nursing and Health and Human Services programs was required to obtain buy-in for the program and continued throughout the design of the pilot project. This provided the opportunity to create and strengthen relationships and build capacity for Essential Skills programming. It also resulted in an initial request from the Nursing program to extend the scope of the project to provide the opportunity for ES assessments for all first-year nursing students.

Further into the project, with the aim of increasing student numbers for the project, meetings with the School of Access and English Language Development (ELD) programs led to a

collaborative team approach, resulting in the ELD program redesigning their course delivery in order to accommodate the ES assessments.

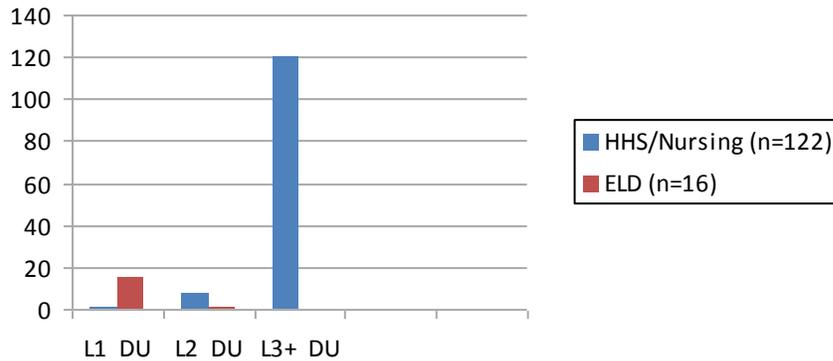
The implementation of the project also relied heavily on partnerships with the other collaborating colleges. Essential Skills practitioner training and webinars provided by Douglas College helped to create a team approach to program design and delivery throughout the pilot. The partnership with Bow Valley College was also key in providing training and certification for ES practitioners and support during the assessment process. The group meetings for all pilot project participants were a forum for sharing best practices and strengthening partnerships and relationships in the Essential Skills community across the country.

## **Awareness and Promotion**

One of the critical success factors of the project was the engagement of key players within the college. Presentations and meetings to deans and department heads stressing the value of Essential Skills programming and improvement of document use skills in students were conducted, resulting in buy-in at the senior level.

Presentations to faculty and to students in each of the HHS classes (including Early Learning and Care, Community Mental Health, Home Care Attendant and Certified Dental Assistant) were then conducted. One of the key factors in the promotion of the project was the support of the faculty: instructors who made class time available and/or encouraged students to take the assessment had almost full uptake for the assessments. Conversely, instructors who had not attended information sessions or were indifferent to the value of the project had very poor turnout from their classes. Approximately 180 Nursing students and 50 HHS students were invited to take the assessment, resulting in 122 students tested. As can be seen from Figure 1 regarding the Essential Skills levels of practicing nurses and health professionals, only 8 students tested as eligible for training (with Document Use scores at Level 2), and of those, only two students opted to participate in the training. This was primarily due to a heavier course load in the winter session; although it was stressed to students that the training would not add additional work to their course load, it was difficult to mitigate this perception.

Although efforts were made to engage other departments and student groups, a second round of TOWES assessments with 16 English Language Development students yielded the exact opposite result as that of the HHS students; only one student scored at Level 2 in Document Use, with the rest scoring at Level 1. Although the student was interested in the training,



**Figure 1:** Document Use Assessment Scores of Camosun Students by Level

logistics and time factors didn't allow this to occur. Since the majority of the students were not eligible to participate in the training, an employability skills workshop with a focus on Document Use was designed for that student group.

One unanticipated hurdle in creating a transparent model for ES delivery was gaining final approval from the college's Research Ethics Board. Obtaining approval required a number of revisions to the presentations made to students and faculty (including revision to the consent form which required approval of the project research team). Meetings with the student counseling department were conducted to ensure awareness of the project and to provide referrals and resources for any students with Level 1 scores.

## Essential Skills Interventions

### *Adult Education Principles*

The Adult Education principles referred to in the National Framework include learner engagement, providing a needs-based approach to assessment and program design, and ensuring adaptability and relevance. The project employed an Essential Skills approach to learning by starting the intervention with an evaluation of skills gaps using the Canadian Literacy Evaluation (CLE) tool.

Learners were engaged following the assessment with an explanation of their test scores and how the three scores in Reading, Document Use and Numeracy apply to their education and future career. The National Occupation Classification and Essential Skills Profiles (available

through Human Resources and Skills Development Canada) were useful in helping students make the link to their future career and the Essential Skills required.

Each student was led through a needs assessment (see Appendix A) in order to design a training intervention to match the specific goals of the learner. The needs assessment was revisited halfway through the intervention to ensure the goals were still relevant, to adapt the training to the students' needs, and to sustain their motivation. The intervention was also customized to accommodate the students' life circumstances, including scheduling around exams and practicum sessions, and using real life situations as a basis for the curriculum to integrate the learning.

### ***Professional Practitioner Skills***

Camosun's Contract Training Department has undertaken a number of Essential Skills projects engaging business and industry, and the lead project practitioner brought a broad range of business experience and skill in facilitating and teaching diverse client groups in multiple industry sectors. Specializing in the integration of Essential Skills into the workplace (including job profiling, recruiting, selection, retention and training), the practitioner had worked primarily with business owners and employees. Therefore, one highlight of the pilot project was the opportunity for the project practitioner to gain experience working within the college system, and to work with faculty in the development of curriculum and integration of ES into college programming.

Professional practitioner skills were further developed through participation in an Essential Skills practitioner training session delivered by Douglas College and the opportunity to integrate the principles of adult learning and the Essential Skills approach to instruction. At that session, Michael Hardt, (President and Co-Founder of Performance by Design and an Adjunct Professor at Syracuse University, New York), provided expert instruction on learning theory and taxonomy of skills as it relates to Essential Skills. The project also afforded an opportunity for the practitioner to develop expertise in delivering ES assessments. Two additional Camosun team members were certified as TOWES Test Administrators.

### ***Types of Interventions***

The first phase of the ES intervention was to identify the most appropriate assessment tool for the project. Considerations such as a paper or online tool, logistics of delivery, and the

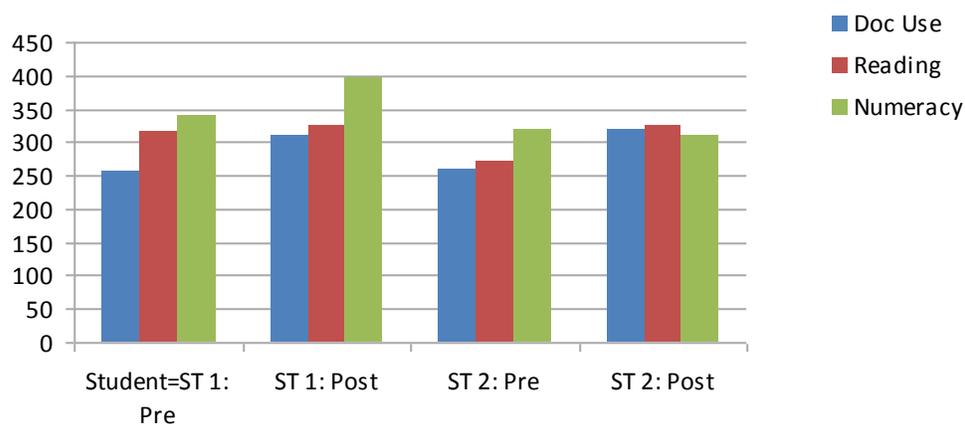
immediacy and debriefing of assessment results were factors in the choice of assessment tools. In the end, both the online CLE and the paper-based TOWES assessments were used.

The second phase of the intervention was to design and conduct a needs assessment with each student to form the basis of the individual learning plan. Initially the training interventions were conceived as small group sessions; however, due to the low number of eligible students and scheduling challenges, the students received one to one instruction. An informal needs assessment was also conducted with the Department Head of Nursing in order to customize the curriculum to meet common challenges identified by students and faculty.

Each participant was scheduled to receive 30 hours of instruction, with a combination of in-class and online learning. The in-class component consisted of activities and curriculum adapted from Nova Scotia Community College (*Document Use Refresher for Apprentices*) and Skillplan (*Measure-up and Reading at Work*), as well as original

Document Use exercises based on authentic materials from the students' textbooks and assignments. These formed the basis of the individual training plans (see Appendix B). The online component consisted of guiding the students in the use of ESD (Essential Skills Direct) and ESO (Essential Skills Online), training tools offered through Bow Valley College.

Although both students were unable to attend all sessions due to mid-terms and a heavy assignment load, they each received 18 and 24 hours respectively of instruction and were highly committed to the ES training. As can be seen from Figure 2, results of the post-



**Figure 2:** Pre and Post TOWES Scores for Student 1 and Student 2

assessment indicated that both students moved from Level 2 to Level 3 in Document Use, with a total gain of 105 and 120 points respectively in Reading, Numeracy and Document Use.

### **Student Pre and Post Assessment Scores**

	<b>Pre-training Assessment Score</b>	<b>Post-training Assessment Score</b>	<b>Total point gain</b>
<b>Student 1</b>	Document Use – 255 Reading – 315 Numeracy – 340	Document Use – 310 Reading – 325 Numeracy – 395	Document Use – 55 Reading – 10 Numeracy – 55 Total point gain – 120
<b>Student 2</b>	Document Use – 260 Reading – 270 Numeracy – 320	Document Use – 320 Reading – 325 Numeracy – 310	Document Use – 60 Reading – 55 Numeracy – (10) Total point gain – 105

## **Transition Pathways to Employability**

The transition pathways described in the National Framework document that pertained most to the Camosun pilot project were supporting learners to move from unemployed to employed and under-employed to better employed. With the rapid increase in technology and the heavy reliance on Document Use and Numeracy in the nursing and health services sectors, high Essential Skills in these areas are critical for students’ employability upon graduation, and for movement and promotion throughout their careers.

In working with the different groups of students, it was apparent that many had taken different paths to arrive at the post-secondary training. For example, a number of first-year students had not had previous work experience (unemployed to employed), and although some students had previous work experience, they were enrolled in a college program to better their career options (under-employed to better-employed).

The first-year nursing students were on a university preparatory track, and although currently enrolled in post-secondary training, attendance at the community college is a transition to a

higher level of post-secondary education. Therefore, for this student group, the project addressed supporting learners to move from unemployed to further post-secondary training.

## Personal Reflection

In the planning of the pilot project, there was exceptional interest in the program, particularly from the nursing program. As the program was originally conceived, most of the first-year nursing students would have been tested. Due to unforeseen delays in scheduling, the project assessments were started at the same time as the start of the second term, which led to the attrition of approximately one third of the number of students estimated.

It was also estimated in the planning phase that 20 to 40 percent of the students tested in the pre-assessment would score at Level 2 in Document Use. In fact, only 8 of 122 students scored at Level 2, leaving a very small sample group. The good news for the nursing students was that all the other scores were Level 3 or higher. The limits of this study have not allowed for a full investigation of why the results were so different from those of the national average. One possible reason worth further exploration could be differences in entrance requirements for Camosun students compared to other colleges offering similar programs. However, this result also contradicts the college's own findings that typically 39 percent of HHS students do not complete their program, and that attrition has been assumed in part to be the result of low ES levels on entering the program (*Camosun College, Educational Research and Planning, October 2011*). One possibility is that this intake of students is atypically skilled. Following the cohort through the next years of their program could provide more data.

Key to the project was the assessment process and how the choice of assessment tool may have affected student numbers. When the TOWES online was unavailable, the choice was made to substitute the CLE, another online test. This was due in part to the fact that in promoting the opportunity, students had been told they would be assessed online. In retrospect, we believe that choice tested students out of eligibility: that in fact the CLE tested high. Anecdotal reports from other collaborating colleges share this perception. Conversely, when using the TOWES paper-based test for the ELD students, the scores were much lower than anticipated, though the fact that the student group all spoke English as an additional language may have affected results.

Given the score gain from the two nursing students who participated, we feel that further engagement and movement in Essential Skills can be achieved using the principles tested in the National Framework project. Essential Skills programming has excellent potential for

promoting higher Essential Skills within the Nursing and Health and Human Services faculties and the industry as a whole through a concerted effort by all levels of management and the nurturing of industry-specific relationships.

## References

Camosun College, Educational Research and Planning, (October 2011). Educational Research.

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## ***Appendix A: Needs Assessment***

This document was used to introduce topics for the intervention and as an exercise in navigating charts. Along with reinforcing the skills of ‘skimming and scanning’ and ‘highlighting key words’, it served as the needs assessment at the outset of the training and was revisited halfway through training.

<b>Essential Skills Needs Assessment:</b>
<b><i>Highlight areas of concern; priorities to be addressed</i></b>
Following directions; identifying key concepts/main ideas
Keeping up with/completing reading; problem solving
Filling in tables/charts; providing clear & logical work
Keeping up with/completing reading assignments; study for exams
Ability to study for exams; completing assignments on time
Identifying key concepts/main ideas; listening
Identifying key concepts/main ideas; keeping up with reading
Sentence structure; low level answers; providing clear & logical work
Ability to study for exams; providing clear and logical work
Ability to study for exams; identify key concepts/main ideas
Inspiring and sustaining motivation; instilling qualities of an independent learner

## ***Appendix B: Individual Training Plans***

These documents served as the basis for addressing the students' learning and study requirements, as outlined in the needs assessments. These modules and strategies were based on the attached curriculum plan from Douglas College and activities and curriculum adapted from Nova Scotia Community College (*Document Use Refresher for Apprentices*) and SkillPlan (*Measure-up and Reading at Work*), as well as original Document Use exercises based on authentic materials from the students' textbooks and assignments.

### Student 1

<b>Identified as Priorities</b>	<b>Module</b>	<b>Strategy / Lesson</b>
Following directions	Using Strategies to Answer Questions	Snapping a question (key words, needed info)
Keeping up with and completing reading and assignments	Strategies for Reading Technical Documents	Introduction to technical reading skills
Allocating study time; completing assignments on time	Study Strategies through Better Time Management	Managing time and developing study strategies
Effective note-taking; identifying key concepts and main ideas	Towards Better Note-Taking	Developing strategies for effective note-taking
Providing clear and logical written work	Organizing Your Writing	Understanding lists and tables; Organizing writing using list structure
Study for exams	Strategies for Taking Tests	Identifying strategies for success on tests and exams

### Student 2

<b>Identified as Priorities</b>	<b>Module</b>	<b>Strategy / Lesson</b>
Identifying key concepts / main ideas	Using Strategies to Answer Questions	Snapping a question (key words, needed info)
Allocating study time; completing assignments on time	Study Strategies through Better Time Management	Managing time and developing study strategies
Effective study techniques; identifying key concepts and main ideas	Towards Better Note-Taking	Developing strategies for effective note-taking
Study for exams	Strategies for Taking Tests	Identifying strategies for success on tests and exams
Ability to integrate key information for exams	Techniques for Improving Memory	Strategies for improving memory and applying knowledge