The Communications Adjunct Model: An Innovative Approach to Language and Literacy Remediation for Adult Learners

Prepared by George Brown College in collaboration with Academica Group Inc.
for the Higher Education Quality Council of Ontario

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1 Yonge Street, Suite 2402
Toronto, ON Canada
M5E 1E5
Phone: (416) 212-3893
Fax: (416) 212-3899
Web: www.heqco.ca
E-mail: info@heqco.ca

Table of Contents

Executive Summary

The significance of literacy for postsecondary success has been demonstrated in numerous research reports showing that attrition and underachievement are strongly linked to low levels of language proficiency (Jennings and Hunn, 2002; Perin, 2004). It has also been shown that Canadian adults with lower literacy levels have significantly lower employment rates and incomes, higher rates of unemployment, and are less likely to be engaged in their community than Canadian adults with higher literacy levels (Statistics Canada, 2005). On a national scale, literacy is a key factor in economic growth, productivity and innovation (Coulombe, Tremblay and Marchand, 2004).

Graduating over 71,000 students per year (MTCU, 2011), colleges play a central role in preparing Ontario adults with varying literacy levels for the labour force. A recent review of literacy-related practices at Ontario's colleges demonstrated that there is currently a wide range and diversity of activities and models being used to address the language needs of students (Fisher and Hoth 2010). Without the appropriate supports, literacy and language challenges are barriers that prevent students from achieving success in their chosen program of study and subsequent career. All post-secondary institutions struggle with finding workable models to support these students, yet there has been little rigorous research evaluating the effectiveness of various remediation approaches (Levin and Calcagno 2008).

In fall of 2008, George Brown College piloted an innovative remedial approach in the Practical Nursing program that targets reading, writing, speaking and listening skills while integrating content from select core courses, termed the Communications Adjunct Model (CAM). The goal of this research project was to assess the impact of CAM on adult learners with diverse remedial English language needs in order to provide important lessons for post-secondary institutions. To assess the program's effectiveness, the academic performance of students placed in CAM was examined in relation to two comparison groups. The first comparison group consisted of students in the same cohort as the CAM group (2008/2009) who were not placed in CAM. The second comparison group included students from two academic years prior to the introduction of CAM (2005/2006 and 2006/2007) who fell below the entrance score cut-offs for selection into the adjunct program.

The analysis undertaken suggests that CAM did not have a strong effect on overall grade performance (GPA). While two out of the four evaluations of the effectiveness of the program showed that CAM had a positive effect on students' GPA, the results were weak and did not prove to be reliable across comparison groups. It is important to remember, however, that the analysis assessed the impact of CAM solely on GPA performance. CAM has a number of additional objectives, such as general language skill development, that would require additional data collection and analysis to better determine the effectiveness of the program. Nonetheless, there are many important learnings that can be gleaned from the project based on George Brown College's experience of developing and administering CAM.

Given the challenges with administering the initiative, the cost of administering it, and the absence of a demonstrable significant, consistent benefit to the students, GBC is phasing out

CAM from the Practical Nursing program. The importance of strong communication skills remains a challenge for many of the Practical Nursing students, however. Alternative strategies to strengthen these skills to support success both within their program and in the nursing profession will need to be further explored for greater effectiveness and viability than this CAM model has demonstrated.

Introduction

Strong language skills are an essential component of success both at the individual level and for the nation as a whole. For individuals, literacy levels are highly correlated with postsecondary achievement, labour market outcomes, and community engagement. The significance of literacy for postsecondary success has been demonstrated in numerous research reports showing that attrition and underachievement are strongly linked to low levels of language proficiency (Jennings and Hunn, 2002; Perin, 2004). It has also been shown that Canadian adults with lower literacy levels have significantly lower employment rates and incomes, higher rates of unemployment, and are less likely to be engaged in their community than Canadian adults with higher literacy levels (Statistics Canada, 2005). On a national scale, it has been documented that literacy is a key factor in economic growth, productivity and innovation (Coulombe, Tremblay and Marchand, 2004).

While the incidence of true illiteracy is very low in Canada, statistics show that roughly 48% of Canadian adults lack the language proficiency needed to successfully function in today's society (Statistics Canada, 2005). In addition, projections by the CCL show that there is likely to be little to no overall progress in adult literacy over the next two decades (CCL, 2008). Concerned about the state of literacy in Canada, many have issued an urgent call to action (CCL, 2009; CMEC, 2005; TD, 2007).

These findings have important implications for publicly funded colleges in Ontario. Graduating overover 71,000 students per year (MTCU, 2011), colleges play a central role in preparing Ontario's adults for the labour force. With standards set by the Ministry of Training, Colleges, and Universities, a key expectation is that all college graduates will be able to reliably demonstrate Essential Employability Skills, which includes strong skills in communication. Thus, colleges have a responsibility to provide students with supports to ensure that they are equipped with the language proficiency required to achieve occupational success.

Like many public colleges, George Brown College (GBC) is committed to equity and accessibility and admits students who meet the minimum admission requirements, in most cases holding an OSSD or equivalent, on a first come, first served basis. Based on data from GBC's Assessment Centre, and in line with the findings reported above regarding the literacy levels of Canadian adults, post-admission placement tests show that about one-third of students accepted require remediation in literacy and numeracy. The Ontario Secondary School Diploma or equivalent does not guarantee that all students are prepared for the rigors of post-secondary academic work, and many students are arriving at the college with remedial language needs. Given these findings, remediation supports to address language deficits are strongly needed in order to improve students' ability to successfully complete their postsecondary program and perform adequately in the workforce.

The challenge of supporting under-prepared students is not unique to GBC. A recent review of literacy-related practices at Ontario's colleges demonstrated that there is currently a wide range and diversity of activities and models being used to address the remedial language needs of students (Fisher and Hoth 2010). Without the appropriate supports, literacy and language

challenges are barriers that prevent students from achieving success in their chosen program of study and subsequent career. All post-secondary institutions struggle with finding workable models to support these students, yet there has been little rigorous research evaluating the effectiveness of various remediation approaches (Levin and Calcagno 2008).

In fall of 2008, GBC piloted an innovative remedial approach in the Practical Nursing program that targets reading, writing, speaking and listening skills while integrating content from select core courses, termed the Communications Adjunct Model (CAM). The goal of this research project was to assess the impact of CAM on adult learners with diverse remedial English language needs in order to provide important lessons for post-secondary institutions.

Project Overview

Context

In 2005, George Brown College launched the Academic Strategy Enhanced Communication projects with the broad aim of graduating stronger communicators (Communications Working Group 2006). To work towards this goal, a series of pilot projects were implemented that were designed to enhance the language and communication skills training that GBC students receive. While George Brown offered two foundation-level communications courses, the diversity of language abilities and needs suggested that a greater range of supports was needed.

To investigate possible solutions, a five stage project was developed called the GBC Learner Language Profile Pilot (Bamber 2005). Practical Nursing, Pre-Health Science, and Heating, Refrigeration and Air Conditioning programs were selected to take part in the pilot. These programs were chosen because they had a large percentage of students of immigrant or international background, a manageable enrolment size for the pilot, and because they were in different divisions and thought to have diverse student bodies. The first two stages of the project focused on formulating a language profile of students to provide clear, detailed information on George Brown learners and their language skills and needs. In the third stage, remediation solutions were reviewed and recommendations were made. The fourth stage was to formulate and apply learner supports, and the final stage, documented here, was to evaluate the learner supports that were applied.

The results of the first three stages were detailed in a 2006 report titled *Profile-Based Remediation: An Innovative Approach to Language, Literacy and Learning* (Bamber, King, and Yeo 2006). Research data from this report indicated that a large percentage of students in each of the three programs were performing at pre-college levels on writing, reading and speaking assessments[1] and led to an understanding of the profiles and needs of students requiring language remediation. Based on these results, language and literacy remediation strategies were proposed that targeted the specific needs of programs and students.

[1] Heating, Cooling and Air Conditioning students participated in a writing assessment only.

Given the significant demands on nurses to communicate effectively with patients and other healthcare professionals, supporting students in the Practical Nursing program was seen as especially important. Research data from the report indicated that 68 per cent of the Practical Nursing 2005/2006 cohort sample population performed at a pre-college level for the Task 1[2] writing assessment (56 per cent remedial and 12 per cent developmental)[3]. For the Task 2 writing assessment, 44 per cent of the students performed at a pre-college level (40 per cent remedial and 4 per cent developmental). In addition, there was a failure rate of 19-22 per cent across the three reading tasks. The report also examined differences between students whose first language was English (42 per cent) compared to English language learners (58 per cent). Results showed that while there were differences in the degree of remediation needed, both groups were similarly likely to require remediation in oral task completion, reading, and writing.

Literature Review

Types of Language Learners

According to Cummins (1981), Basic Interpersonal Communication Skills (BICS) represents language used in common daily exchanges. The BICS-ready learner has a vocabulary of around 5000 words and can function comfortably in context-embedded situations.[4] Cognitive Academic Language Proficiency (CALP) refers to language used to process higher order cognitive tasks such as reasoning, integrating, synthesizing, hypothesizing, analyzing, and imagining. A learner in the most sophisticated stages of CALP recognizes over 12 000 words and can function in context-reduced situations (grade 12 or post-secondary).[5] Cummins estimates that a second language learner requires two years to become proficient in BICS (native-like fluency) but that five to seven years are required for that same student to develop adequate CALP.

The question arises as to whether or not CALP acquired in an individual's first language (L1) is also available when developing their second language (L2) skills, and vice versa. The Common Underlying Proficiency Model (CUP) asserts that this is indeed the case: acquired knowledge may be viewed as a bank in which information is stored in one central area and different language channels can be used to access and use that knowledge. For example, Donin and Silva (1993) observed that nursing assistants, when reading occupational material in English, transferred their first language reading strategies to the task. Bell (1995) believes that both adult and child learners make effective use of their first language CALP when developing second language competencies. However, some researchers caution that there is a linguistic threshold in the first language that must be attained before this transfer can occur.

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[2] Task 1 required the student to write a memo to a supervisor, recommending a product based on a comparison of data for two products and an assessment of the supervisor's needs. Task 2 required the student to write an e-mail to a college administrator, requesting detailed information about a school function.
[3] Remedial is considered below what is required for post-secondary, but likely "remediable" within the program with the right curriculum. Developmental is considered not remediable within program.
[4] Context-embedded means that additional cues are available in the environment, e.g., the opportunity to ask questions, pictures, facial expressions, or visual or auditory supports.
[5] Context-reduced means no additional cues are available in the environment, e.g., listening to a lecture or reading a passage without opportunity for clarification.

There is less consistency among academics concerning the threshold and the time it takes to reach the level of critical transfer between languages for successful engagement in academic demands of school associated with cognitive academic language proficiency (CALP). Collier (1995) suggests a grade equivalent (GE) of four as the linguistic threshold required in the first language for smooth transfer of underlying concept understanding central to cognitive development in the second language. Collier suggests that this level can be attained (and sustained) after four to five years of schooling in both languages.

Researchers also caution that bilingualism does not necessarily mean mastery of two languages. *Subtractive bilingualism* occurs when "the learner either loses his mother tongue or fails to develop the ability to express certain kinds of functions (such as those associated with literacy) in it" (Ellis, 1985, p. 118). For example, a student whose first language is Mandarin enters an Ontario public school at age four. The student does not continue to develop Mandarin because social pressure and lack of L1 support in the school system motivates him to acquire English. In addition, he experiences academic difficulties and does not become fully proficient in English, even though he speaks fluently after two years of immersion. Subtractive bilingualism in young children can negatively affect the development of both languages and interfere with the academic development of the child. This is important since students in post-secondary programs may have experienced subtractive bilingualism and the academic challenges associated with it.

The relevance of the relationship between BICS/CALP and academic development to the learners in this project is important if we want to understand why some students perform poorly at the post-secondary level. Researchers suggests that the level of a student's Cognitive Academic Language Proficiency (CALP) and Basic Interpersonal Communication Skills (BICS) may play a stronger role in their academic performance and communication skills than whether that student is L1 or L2.

According to Cummins' model, L2 students who have achieved a high level of CALP in their first language (most likely adults) and who have not yet achieved adequate BICS in English may perform poorly in college-level courses. We refer to learners who fit this profile as Type I. A high percentage of the L2 students in the Practical Nursing program reflect this profile. These students obtained post-secondary degrees in their L1, but they are limited to context-embedded situations in English because they haven't been in Canada long enough to adequately develop their BICS. Their struggle is linguistic, not academic.

Alternately, L2 students who have not achieved a high level of CALP in their first language because they entered English immersion at an age at which their L1 had not been fully developed (i.e., prior to grade four), may be at risk for academic failure in college-level courses. We refer to learners who fit this profile as Type II – L1.5 – young. According to Oakes (1993, cited in Roessingh and Kover, 2003, p. 7) disproportionate numbers of these students do not receive ESL instruction at the time of immersion and end up in non-academic track studies in high school or special education, fail, or dropout. Sometimes, however, these students receive L2 instructional support and manage to develop their L2 to a level sufficient for academic study in college; others manage without the support, but they must make twice the effort to do so.

Roessingh and Kover (2003) depict a second Type II category that differs from the previous one in regard to age only: these students entered the Canadian education system a little later, between the ages of 12 and 15. The first language of these learners is well established and they may have acquired some English vis-à-vis EFL classes previously taken in their home country. The first language linguistic and cognitive skills of these learners are not fully developed but they are stronger than those of the L1.5 younger learners. When these students entered high school in Ontario, they were faced with the dual challenge of developing both BICS and CALP in English. Some of these learners may be at risk for academic failure in college-level courses because from four to seven years is required to develop CALP in the L2 and these students often enter college under-prepared.

A third Type II category includes those L2 students who have achieved a high level of CALP in their L1 (ages 15-16) and who are proficient in BICS. The development of L2 CALP requires several years, however, and when these students entered high school in Ontario, all academic efforts were channeled into CALP development. For these students, the ongoing process of CALP development likely occurs throughout college-level courses, but not all students succeed and either fail or drop out.

Two Type III categories are included to represent students whose first language is English. The first Type III category includes L1 students who have fully developed CALP and BICS. However, being a native speaker of English does not automatically mean that CALP is highly developed. Many native English speakers have fully developed BICS, but weakly developed CALP and require literacy and language remediation. These students are included in the second Type III category.

These three learner types (summarized in Table 1) can be used to differentiate between students and to address the unique learning needs of each type of learner.

Table 1 - Summary of Learner Profile Types

Profile Type	L1/L2	Age	Profile
Type I	L2	adult	high CALP in first language; inadequate BICS in English
Type II	L1.5	young	weak CALP because entered English immersion at an age at which they had not yet adequately developed their first language; strong BICS in English
		12-15	stronger CALP and more developed first language; weaker BICS in English; linguistic and cognitive skills are not fully developed in first language
		15-16	fully developed CALP in first language; adequately developed BICS in English
Type III	L1a	Birth	fully developed CALP and BICS in English (first language)
	L1b	Birth	fully developed BICS; weak CALP in English (first language)

What Works in Remediation

A wide body of research supports the idea that remedial courses can increase the academic achievement of under-prepared students (Boylan and Saxon, 1999; Finkelstein, 2002; Yamasaki, 1998). According to Bettinger and Long (2006), students who take required remedial courses are more likely to persist in college in comparison to students with similar test scores and backgrounds who were not required to take remedial courses. However, it should be noted that remediation has the largest positive impact on students who have the lowest remediation needs. That is, students on the margins of being considered remedial typically experience the greatest positive effect from remediation (Bettinger and Long, 2006).

Research into best practices in remediation indicates that academically under-prepared students learn most effectively in highly structured classes with clearly stated goals and expectations (Boylan and Saxon, 1999). Since students with remedial needs often "lack the organizational schema necessary to comprehend many academic concepts," they often benefit from highly structured learning experiences that model effective ways of organizing information (Boylan and Saxon, 1999). In addition, classroom-based research on second-language learning indicates that a combination of form-focused instruction and opportunities to use the second language in meaningful interaction are more effective than program that emphasize only accuracy or fluency (Lightbown and Spada, 2003).

Nunan (1999), in his review of task types and modes of classroom organization that facilitate acquisition, concludes that "while the task variables do appear to have an effect on the amount of negotiation for meaning, there appears to be an interaction between task variables, personality factors, and interactional dynamics" (p. 54). In other words, simply providing students with tasks that require meaningful exchanges is not enough – learner characteristics can either facilitate or block acquisition and must be taken into account. Developmental and remedial learners are often averse to or do not know how to participate in groups or paired work and often need to be taught learning strategies.

A growing body of research indicates that alternative approaches to foundational courses can be successful in meeting the needs of under-prepared students. Depending on the needs of the population, paired courses have been particularly effective. Paired courses, or adjuncts, aim to use the content of one course as a focus for the application of skills taught in another course. This is often used to combine basic skills with core course content, for example pairing reading remediation with an anatomy course. Research suggests that remediation that is "linked" to content courses in this way "improve[s] student persistence, enhance[s] the student's social and academic integration into the college experience, and, perhaps, increase[s] academic achievement at least in the linked content course" (Koski and Levin, 1998, p. 31). Moreover, studies suggest students who take linked courses achieve higher grades in the content courses, persist in college at a rate similar to the college-wide population, and can experience increased academic performance in non-linked courses as well (Blanc et al, 1993; Gebelt et al, 1996).

Boylan (1999), in a review of remediation alternatives, argues that paired or adjunct courses are particularly successful with remedial students. According to Boylan (1999), students participating

in linked courses **"**tend to show higher levels of performance and demonstrate greater satisfaction with their instructional experiences than similar students participating in traditional courses**"** (p. 6). Further, language teaching that is linked to content-based material can increase students' confidence, provide students with "real world" practice using authentic material, and help students retain information studied in core courses. Finally, some writers conclude that courses which aim to develop critical thinking skills have improved student performance in reading and writing and contributed to higher GPAs and retention (Chaffee, 1992).

Communication Demands of the Practical Nursing Profession

In 2002, the Centre for Canadian Language Benchmarks produced a report documenting the communication demands of the nursing profession in Canada. In light of the demands identified, appropriate Canadian Language Benchmarks were assigned in the four skill areas (speaking, listening, reading, and writing).

According to the CCLB document, the workplace of the registered practical nurse (RPN) includes listening tasks benchmarked at a CLB level of nine. Practical nurses must be able to follow directions for non-routine procedures and listen to reports about daily operations; they must not only understand factual details, but also the "inferred meaning and social roles of the speakers through identification of attitudes and moods" (CCLB, 2002, p. 41). A practical nurse working in Toronto has the added challenge of serving clients from diverse cultural and linguistic backgrounds. For students with prior post-secondary education or relevant work experience in their country of origin learners, the nursing context is a familiar one -- an advantage for processing listening tasks. However, challenges for these learners remain two-fold: they must learn to use cognitive strategies from their first language while operating in English while at the same time improve their ability to decode listening texts in English.

Entrance-to-practice speaking benchmarks for nursing have been set at a CLB level of eight (CCLB, 2002) and it has been established that the competent practical nurse must effectively use oral communications to perform his or her duties. Ineffective oral communication skills are problematic for nurses because the risk of treatment error due to miscommunication is high. In addition, clients and colleagues alike may regard the registered practical nurse (RPN) who lacks speaking confidence or who is perceived as unassertive as ill-prepared. Therefore, RPNs with oral proficiencies benchmarked lower than eight would not be able to accomplish everyday speaking tasks effectively.
RPNs are required to use a variety of reading skills to complete different tasks. For example, RPN's regularly scan patient charts, read instructions, technical manuals and activity reports, and check forms for completeness and accuracy and use the information in these documents to perform their nursing duties. The reading benchmarks for nursing have been set at a CLB level of eight.

The CCLB document benchmarked writing tasks for nurses as a CLB level of seven. The writing tasks that RPNs perform regularly include charting, taking phone messages, filling out reports, and writing guidelines for family members and caregivers explaining how to care for patients after they are released from the hospital. Every record or message an RPN writes in the workplace must be clear, precise, and comprehensible to the intended reader. Including

irrelevant or inaccurate information in a set of instructions written for a patient's caregiver, for example, can have a negative impact on the effectiveness and the quality of the care the patient receives. Messages written to patients or their caregivers must also be organized logically, particularly when they contain instructions that must be followed in a particular sequence. Using appropriate transitional words and phrases is also essential, especially for readers who are not familiar with the procedure being explained.

In addition, in order to convey messages effectively in the workplace, RPNs must be able to use communication strategies and language that suits the particular needs of the audience they are addressing. In other words, they cannot write down information for patients using the same language and style they would use to communicate with other healthcare professionals. Accuracy and precision are also important, particularly in a health care environment, where grammar, sentence structure or spelling mistakes that interfere with the reader's understanding of the intended message can result in diagnostic or treatment errors.

The Communications Adjunct Model

Based on the review of remediation models and recommendations made in stage three of the GBC Learner Language Profile Pilot, a two-year pilot of an embedded remedial communications support for Practical Nursing students, termed the Communications Adjunct Model, was funded in 2008. The secondary research suggested that remediation that is 'linked' to course content can not only improve communication skills, but can also increase student persistence and improve students' academic performance in the linked courses. Sustaining concurrent remediation throughout the program was recommended so that maximum benefit across core courses could be achieved.

General Description

The Communications Adjunct Model (CAM) was designed to meet the communication needs of the Practical Nursing program and profession. For select core courses, four to six hours of remedial communications work was embedded in each of the first three semesters of the program. Thus, CAM consisted of three courses (NURS1141, NURS1142 and NURS1143) that spanned three semesters, however, this evaluation focuses only on the first two courses. In the first semester, a two-hour communications adjunct was linked to each of three core courses: Anatomy and Physiology (ANAT1052), Profession of Nursing (NURS1026) and Clinical Applications (NURS1029). Collectively, these adjuncts made up the first-semester communications adjunct course, NURS1141, for a total of 6 hours per week. The content of each adjunct was restricted to the material taught in the core course. For example, the Anatomy and Physiology curriculum drove the content of the anatomy and physiology adjunct. More importantly, the content was used as a vehicle with which to target the development of writing, speaking, listening and critical thinking skills. In the second semester, one four-hour per week adjunct (NURS1142) was used to target primarily oral/aural communications within the clinical setting and was linked entirely to the content of Clinical Applications (NURS1030).

Placement Process

All students coming in to the first semester of the Practical Nursing Program in the fall were originally timetabled for NURS 1141. Prior to the start of the program, a series of three communications assessments were used to determine which students would remain in the NURS1141 course and which would be exempted. The assessments included writing , listening, and oral task completion . The writing tasks (both a computer-based grammar component and a writing sample that was assessed according to both the National Literacy Standard [NLS] and George Brown Writing Scale [GBWS]), assessed four basic writing competencies: organizational, communicative, linguistic and strategic. The listening assessment measures the student's ability to listen to and understand spoken English (both literal comprehension and implied meaning). While looking at pictures of the speakers, the student listens to a conversation or lecture. The question is then read followed by four answer choices. Finally, oral task completions were designed to measure the student's ability to complete a given task using oral skills. For this project, six oral tasks were presented in order of increasing difficulty: communicate basic personal information; describe a picture (parts and function); explain detailed directions; give an opinion or recommend a solution to a simple problem; describe events using appropriate detail and order; and obtain specific information to inform decision making in a related task. Students entering directly into the the Practical Nursing program, were tested as part of the admissions process. Those students who entered the Practical Nursing program in the first semester via articulation agreements with George Brown's Pre-Health Sciences Program (A102) and Personal Support Worker Pathways Program (S119) took these tests at the beginning of the first semester, and students who entered the program in the second semester via articulation agreements with City Adult Learning Centre (CALC) and Yorkdale Adult Learning Centre (YALC) or who entered from other programs took the tests at the beginning of second semester.

Students who performed above 2/6 on the essay test, 82 on the listening test, and above 12 on the speaking test were eligible for an exemption. A student could not be exempted from the CAM courses if they scored below these cut-offs on any of the tests. An important part of the placement process involved a brief advising session with each student once they had completed their speaking assessment. All students were given an overview of the communication adjunct courses and their place within the curriculum. This provided the student with a clear and relevant purpose for the adjunct series of communication courses and also gave the student the opportunity to ask questions. As this was a pilot initiative, placement in the adjunct courses did not result in increased tuition fees for any participating students.

Assessment	Exemption Level
Writing sample	3(NLS)/7(GBWS)
Listening	83 or above
Speaking	13 or above

Curriculum

For both communications courses, NURS1141 and NURS1142, the level of remedial support required in the four language skill areas (speaking, listening, reading and writing) and the

language tasks regarded as dominant in the nursing profession (CCLB, 2002) were selected as the basis of the adjunct course objectives. The objectives were derived from four basic outcomes that occur in personal, academic, or nursing contexts and included the ability to:

1. Integrate core course vocabulary and concepts with language competencies to complete moderately complex language tasks.
2. Demonstrate accurate language form while completing moderately complex language tasks.
3. Incorporate various communication strategies to extract and integrate information as required, form ideas, plan, organize and construct texts, and manage conversations.
4. Use various global competencies and critical thinking skills to complete moderately complex language tasks.

The curriculum aimed to *exercise* particular language skills by engaging the learner in a wide variety of task-based activities while drawing on core course content. For this reason, language skills were not explicitly taught. To varying degrees all four communication skill areas were addressed in each of the adjunct courses.

In the second year of the pilot the curriculum was revised based on student feedback. Data collected from the NURS1141 student survey indicated that learners might benefit from explicit teaching in addition to the exercise of targeted language skills. As a result, the curriculum in the second year of the pilot incorporated explicit teaching skills such as the basic structure required for a comparison paragraph, topic sentences, or the use of transitions in written work. As well, the number of course assessments was reduced so that more time could be used to develop and hone particular skills, especially those used for extracting information from academic texts; orally relaying information; problem solving; and writing short, detailed texts.

While students judged ANAT1052 and NURS1026 adjuncts useful, survey data as well as student reporting showed that therapeutic communications in the nursing context is not viewed as particularly valuable by the current student population. For example, small talk was viewed as unimportant. Since therapeutics is critical to the quality of the nurse-client relationship, the NURS1029 adjunct was revised to include medical terminology, more challenging case studies, and various external interactions to influence student perceptions of the importance of therapeutic communication techniques.

Preliminary discussions with NURS1142 students revealed a preference to focus on critical thinking and reading/writing related to the clinical setting. The direct focus on speaking/listening skills seemed valued by those students with low oral/aural skills but rejected by students with higher oral/aural skills. NURS1142 was thus revised to produce an enhanced curriculum that retains its direct focus on select speaking/listening and strategic communication skills in the clinical context but also included pre-speaking tasks that could be adjusted for level of difficulty, based on the abilities of the particular sub-population of students within each classroom. This ensured that the course outcomes and assessments were maintained, but the level of difficulty could be flexible. See Appendix 1 and 2 for course outlines of NURS1141 and NURS1142, respectively.

Assessment

Assessment for both NURS1141 and NURS1142 consisted of a combination of summative tests, oral demonstrations and participation. Each summative test provided an opportunity for the learner to demonstrate his/her ability to complete various tasks based on previous lessons: language, content and critical thinking were combined in all language tasks. In NURS1141, four summatives were administered per two-hour adjunct for a total of twelve. As well, there were additional assessments that targeted specific language tasks in writing and reading. NURS1141 contained an oral presentation in the NURS1029 adjunct (30 per cent) and a final oral exam worth 25 per cent of the total grade. Considerably fewer assessments were administered in NURS1142; this was primarily due to the time challenges involved with oral/aural testing (this course targeted oral/aural skills). Consequently, in NURS1142 there were only four summatives. NUSR1142 contained an oral demonstration at mid-Term (20 per cent) and a final oral exam (25 per cent). In both NURS1141 and NURS1142, participation was assessed by self, teacher and peers. The passing grade for NURS1141 and NURS1142 was C- (60-62 per cent).

Progression through the Program

In order to explore the effects of participation in the adjunct on student performance, adjunct courses were regarded as mandatory by the program. As such, NURS1141 and NURS1142 were classified as graded courses and the grade was included in student GPA calculations. This approach was taken to establish the importance placed by the program on language skills in the minds of students. Progression through the program is documented in Table 2. For example, if a student failed NURS1141, a grade of 'Standing Deferred' or "SD" was assigned and the student progressed to NURS1142. If the student achieved "C-" or better in NURS1142, the "SD" in NURS1141 was replaced with "C-". If the student did not achieve "C-" in NURS1142, the student was offered the opportunity to write a supplementary exam for NURS1141. If the student failed the supplementary exam, a grade of "F" was entered for NURS1141. Although the GPA was affected by performance in NURS1141 and NURS1142, no student was prevented from progressing to the next semester because of a failed status in NURS1141 or NURS1142. This was applied so that a student would not be disadvantaged by the implementation of a mandatory piloted course and to maintain course linking in future semesters.

Table 2 - Path of progression through the program for NURS1141, NURS1142 and NURS1143

Course	Performance	Grade	Next Steps/Path
NURS 1141	C- or better	C- or better	NURS 1142
	F	SD*	NURS 1142 If C- in NURS 1142 at mid-Term, then NURS 1141 → C-
	F	SD	NURS 1142 If F in NURS 1142 at mid-Term, then NURS 1141 → supplemental exam required to pass NURS 1141
NURS 1142	C- or better	C- or better	NURS 1143
	F	SD	NURS 1143 If C- in NURS 1143 at mid-Term, then NURS 1142 → C-
	F	SD	NURS 1143 If F in NURS 1143 at mid-Term, then NURS 1142 → supplemental exam required to pass NURS 1142
NURS 1143	C or better	C- or better	Successful completion of communications series
	F	INC**	Supplemental exam required to pass NURS 1143

Project Evaluation

To assess the effectiveness of CAM, a pre-post evaluation framework was designed involving a series of evaluations to be administered both before and and after participation in the CAM project. The evaluations were to consist of the 12 assessments used to determine whether a student would be placed in the CAM courses (outlined under 'Placement Process' above). In addition, a template of measurable traits was to be used to identify specific content for each language profile using both linguistic and background information. To build an individual profile, the template was to be completed by inserting relevant data collected from various sources: college data banks, a background survey, assessments of all four language skills and various test scores provided by the Assessment Centre.

Pre- and post-treatment data and measurable background traits were then to be analyzed using various statistical methods to determine:

1. The area(s) of effect of the adjunct courses on language development;
2. The degree of impact of the adjunct courses on language development;
3. Factors affecting language development (age, gender, education, L1/L1.5/L2; workload);
4. Effectiveness of the adjunct courses for improved academic performance in core nursing courses
5. Factors affecting academic performance in core nursing courses (age, gender, education, L1/L1.5/L2, workload).

Unfortunately, a variety of factors contributed to an inability to carry out the original evaluation plan. Most significantly, no post- data was able to be collected. To assess the effectiveness of CAM we can thus only look at the impact of CAM on academic performance. If we assume that students with weak language skills have lower academic results than students with stronger language skills, we expect to see an effect of the adjunct on academic performance in the core courses that are targeted within each adjunct course.

Methods

Two comparison groups were used to evaluate the impact of CAM on students' academic performance. The first comparison group consisted of students in the same cohort[6] (2008/2009) who were eligible for exemption and were not placed in CAM (non-CAM). The purpose of using this group as a comparison was to see whether students who received CAM performed above or below the level of students who did not receive CAM. This comparison should speak to (1) the selection criteria for entering the adjunct program and (2) if the adjunct program helped students achieve success similar to those not in the adjunct program.

The second comparison group included students from two academic years prior to the introduction of CAM (2005/2006 and 2006/2007) who fell below the entrance score cut-offs for selection into the adjunct program (historic matched CAM or HMC). Refer to the *Placement Process* section for details on the selection criteria.

Given the lack of a randomly assigned control group, using two different comparison groups allows for a more robust analysis, in which findings can be considered on the basis of consistency across evaluations. Therefore, stronger findings will be those that are reported in the analysis of both comparison groups, while weaker or unreliable findings will be those that only emerge in one of the comparison groups and not the other.

For each comparison group, two methods were used to evaluate CAM's effectiveness. The first method was to compare mean scores between the CAM and comparison groups. If the program is effective, we expect to see that GPA scores are equal or higher for the CAM group. The second method used to evaluate the effectiveness of CAM is to look at GPA from Term 1 to Term 2 classes. Among all groups of students in this analysis, there is a trend in which mean grades drop from Term 1 to Term 2. If CAM is effective, we expect that grade stability would be greater for those in CAM than for those in the comparison groups; that is, we would expect that the drop in GPA would be less drastic for CAM students than for non-CAM students if the program was effective. A limitation of the Term 1 to Term 2 analysis is that it requires we have student data for both terms. Students who entered the program via an adult learning centre (CALC/YALC students) commenced their studies in Term 2. In such cases a comparison could not be made.

In all of the tables below GPA score is presented in the original format on a scale from 0.1 – 4, where 0.1 indicates the lowest GPA and 4 represents the highest possible GPA. For individual courses, letter grades were converted to numerical values. This scale runs from a value of 1 for 'F' to 11 for 'A+'. It was necessary to construct such a scale because of issues with missing values for percentage grades in classes.

[6] The 2008/2009 cohort consists of two classes of students in the nursing program; the first began in September 2008, and the second began one-term behind in January 2009. The data for term one of the first class and term one of the second class were combined to form the first term of the 2008/2009 cohort. The second term of the 2008/2009 cohort was created the same way.

Analysis: CAM to Non-CAM Students in Same Cohort

This section compares students who received CAM to those who did not in the 2008/2009 cohort. The benefit of selecting the non-CAM group from the same cohort as a point of comparison is that it ensures that students were graded in a relatively similar manner by controlling for differences in grading procedures in previous years that could introduce biases to the analysis. Applying the two methods of evaluation described in the methodology section, if the CAM program is effective we would expect that the raw grades of the CAM group would either be the same or significantly higher than the non-CAM comparison group and that the drop in grades from Term 1 to Term 2 would be less for the CAM group than the non-CAM group.

The demographic profile of the CAM and non-CAM groups is provided in Table 3. As we can see, the CAM group is significantly older, more likely to be landed immigrant, non-native English speaker and be a direct entry student. Within the direct entry group, a greater proportion of students in the CAM group are from the adult learning centre (CALC/YALC) than the non-CAM group. For analysis purposes, figures for students in the CAM and non-CAM groups for whom academic performance data was available for both semesters are included as a subsample under the column heading '**Two terms**'.

Table 3 – Demographics of CAM and Non-CAM Students in Same Cohort

		CAM One term only	Non-CAM One term only	CAM Two terms	Non-CAM Two terms
		179	62	74	41
Gender	Female	76.50%	79.00%	79.70%	85.40%
	Male	23.50%	21.00%	20.30%	14.60%
Age*	< 25	26.80%	61.30%	32.40%	65.90%
	25-29	18.40%	24.20%	14.90%	22.00%
	30-34	20.70%	6.50%	24.30%	2.40%
	35+	34.10%	8.10%	28.40%	9.80%
Direct Entry*	No	37.40%	56.50%	66.70%	75.60%
	Regular	49%	80%		
	Adult Ctr	5%	0%		
	Other	46%	20%		
	Yes	62.60%	43.50%	33.30%	24.40%
	Regular	24%	67%		
	Adult Ctr	69%	33%		
	Other	7%	0%		
Canadian Status*	Canadian Citizen	44.70%	90.30%	50.00%	92.70%
	Landed Immigrant	55.30%	9.70%	50.00%	7.30%
First language*	English	49.40%	88.30%	53.00%	87.50%
	Other	50.60%	11.70%	47.00%	12.50%

*p<.05

Table 4 – Centred Regression Coefficients Predicting GPA for CAM and Non-CAM Students Separately

	CAM Group		Non–CAM Group	
	Term 1 GPA	Term 2 GPA	Term 1 GPA	Term 2 GPA
	(N=76)	(N=121)	(N=52)	(N = 48)
Age	0.24*	0.111	0.156	0.241
Gender (Ref=female)	-0.141	0.059	-0.059	-0.109
Direct Entry (Ref = No)	-0.196	-0.207*	-0.296	-0.238
First Language (Ref = No)	0.095	-0.179	-0.142	-0.238
Canadian Citizen (Ref = No)	-0.327*	-0.176	0.008	-0.004
NLS	-0.063	0.088	0.059	-0.048
LISN	0.308*	0.247*	0.036	0.216
SP	0.156	-0.083	0.043	0.04
R - Square	0.327	0.179	0.180	0.192

*p<.05

Table 5 compares mean high school grades and entrance test scores for each group. In this table the CAM and non-CAM groups have been divided into two sub-groups. As indicated previously, the groups followed by the 'Two terms' label are a subsample of the data that only includes cases that had grades recorded in both the first and second semesters. As expected, due to the criteria by which the comparison group was selected, the non-CAM comparison group scored significantly higher on the entrance tests with the exception of science. Regardless of the higher marks on most of the entrance tests the overall GPA for Term 1 and Term 2 did not differ significantly for the CAM and non-CAM group as indicated by the regression model presented in Table 6.

Table 5 - High School Grades and Entrance Test Scores

	CAM One term only	Non-CAM One term only	CAM (Two terms)	Non-CAM (Two terms)
Grade 12+ English Mark	69.77*	74.81*	70.41	74.88
Grade 11+ Math Mark	66.74*	75.08*	66.21*	75.67*
Grade 11+ Biology Mark	69.95	68.82	72.02	69.45
Grade 11+ Chemistry Mark	69.19	65.47	69.81	68.04
Admission test - National Literacy Sample (Essay) (from 1 to 6)	2.08*	3.05*	2.1*	3.07*
Admission test - George Brown Writing Test (Grammar) (from 1 to 10)	5.65*	7.05*	5.78*	7.07*
Admission test - Listening (from 1 to 99)	86.62*	95.08*	88.16*	95.46*
Admission test - Writing Skills (from 1 to 100)	69.61*	81.4*	69.73*	82.27*
Admission test - Composite English Score (from 1 to 99)	50.67*	76.81*	51.46*	77.2*
Admission test - Pre-Algebra (from 1 to 100)	68.8*	75.65*	69.47	74.88
Admission test - Science (Allied Health) (from 1 to 43)	27.81*	25.86*	28.34*	26.05*
Admission test - Speaking (from 0 to 18)	14.11*	16.05*	13.03*	15.83*

*p<.05

Table 6 evaluates the effectiveness of CAM through a multiple regression model where participation in CAM is entered as a variable to see whether it can predict a difference in grades. For the GPA in each term, two models are run. Model 1 predicts GPA while controlling for demographic factors alone, while Model 2 predicts GPA while controlling for both demographic factors and entrance test performance. In terms of demographic variables, Table 6 is consistent with Table 4 showing that age, entry status, and Canadian citizenship are among the most important predictors in determining GPA.

As stated in the introduction to this section we would find the CAM program to be effective if the GPA of the CAM group was equal to, or above, that of the non-CAM comparison group. In the below analysis we find that those in CAM had a significantly lower GPA in Term 1 before controlling for entrance test scores. After controlling for these tests, the effect of CAM was not significant and therefore suggests that CAM helped students achieve similar grades as non-CAM students. In Term two those in CAM did not predict higher or lower scores than those not in the CAM program. Therefore, based on the regression model presented in Table 6 and the comparison of raw mean scores presented in Table 5, these findings suggest that CAM succeeded in increasing the skills of students to perform at the same level as their non-CAM counter-parts who scored higher on most of the entrance tests and had higher high school grades in English and Math.

Table 6 – Standardized Regression Coefficients Predicting the Effect of CAM on GPA

	Term 1 GPA (Model 1)	Term 1 GPA (Model 2)	Term 2 GPA (Model 1)	Term 2 GPA (Model 2)
	(N=142)	(N=128)	(N = 186)	(N = 169)
Age	0.218*	0.215*	0.077	0.143
Gender (Ref=female)	-0.055	-0.109	0.024	0.025
Direct Entry (Ref = No)	-0.201*	-0.242*	-0.239*	-0.214*
First Language (Ref = No)	-0.052	0.005	-0.174*	-0.202*
Canadian Citizen (Ref = No)	-0.191*	-0.239*	-0.17*	-0.141
CAM Group (REF = NO CAM)	-0.185*	-0.023	-0.038	0.143
NLS		-0.013		0.147
LISN		0.251*		0.244*
SP		0.146		-0.047
R - Square	.144	.228	.109	.161

*p<.05

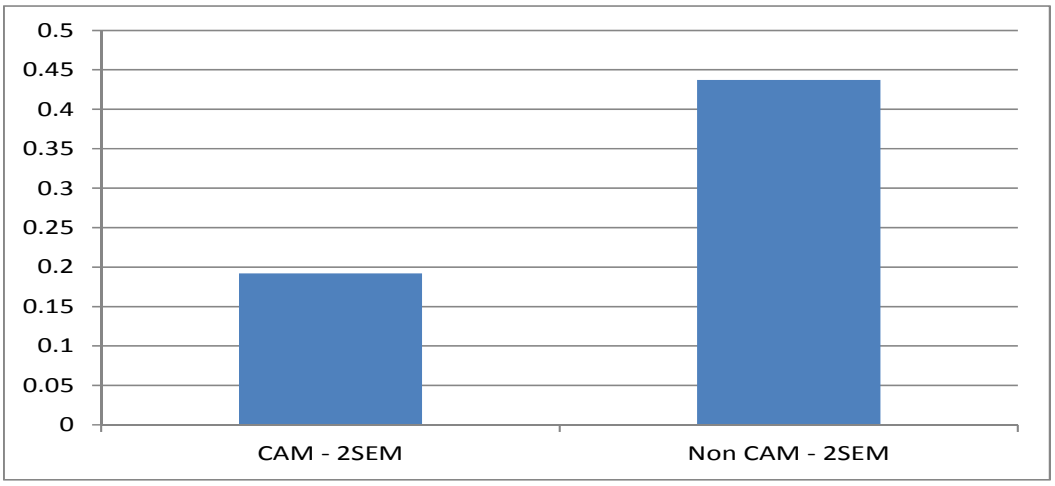
Another way of evaluating the effectiveness of CAM using the current comparison group is to look at whether CAM helped to buffer the decrease in GPA from Term 1 to Term 2 (Table 7). In order to compare the drop in grades the 'Two terms' sub sample was used, which included only those students who had academic performance data available for both semesters (some students entered the program in second semester through articulation agreements; others don't follow the standard program progression or withdraw after first semester). Figure 1 demonstrates that the drop from Term 1 GPA to Term 2 GPA was significantly less for the CAM group compared to the non-CAM group suggesting that CAM may have helped to buffer the drop in GPA from Term 1 to Term 2.

Table 7 – Change in GPA from Term 1 to Term 2 for CAM and Non-CAM Comparison Group

	CAM Two terms	Non-CAM Two terms
Term1 GPA	3.116245	3.188414
Term2 GPA	2.924509	2.75122
GPA Term1 – GPA Term2 Change	0.1917*	0.4372*

*p<.05

Figure 1 – Drop in Grades from Term 1 to Term 2 for CAM and Non-CAM Groups



The results from this section suggest that CAM may help students who were lacking communications skills upon entrance into the program perform at a similar level to those who were judged not to have remedial language needs. Considering that the non-CAM group started at a relatively higher level in terms of communications skills, the fact that the CAM students are performing on par with these students is an accomplishment.

Analysis: CAM to Historic Matched CAM Students

This section compares students who received CAM to those who entered the nursing program several years before the CAM program was initiated, referred to as the historic matched CAM group (HMC). This historical comparison group is composed of students who performed below the CAM entrance test cut-off scores. That is, this comparison group would have been placed in CAM if the program had been in operation. The comparison group was selected if they scored below 3 (out of 6) on the essay (NLS) component of the entrance tests and those who scored below 82 per cent on the listening component. No speaking test information was available in the historical data, so the comparison group was defined only by the first two admission test criteria.

Table 8 shows the demographic characteristics of the CAM and the HMC comparison group. The CAM group has significantly fewer students above the age of 35 and has significantly more direct entry students. On all other demographic variables

Table 8 – Demographics of CAM and HMC Students

		HMC	CAM	HMC Two terms	CAM Two terms
		(N=254)	(N=179)	(N=207)	(N=74)
Gender	Female	80.30%	76.50%	81.20%	79.70%
	Male	19.70%	23.50%	18.80%	20.30%
Age*	< 25	10.50%	26.80%	9.10%	32.40%
	25-29	24.60%	18.40%	23.00%	14.90%
	30-34	16.80%	20.70%	18.20%	24.30%
	35+	48.00%	34.10%	49.80%	28.40%
Direct Entry*	No	78.60%	37.40%	80.00%	66.70%
	yes	21.40%	62.60%	20.00%	33.30%
Canadian Status	Canadian Citizen	46.90%	44.70%	44.50%	50.00%
	Landed Immigrant	53.10%	55.30%	55.50%	50.00%
First language	English	46.30%	49.40%	43.20%	53.00%
	Other	53.70%	50.60%	56.80%	47.00%

*p<.05

Table 9 presents the results of the regression analyses. Separate regression analyses were done for the CAM and HMC groups. Model 1 predicts GPA while controlling for demographic factors alone, while Model 2 predicts GPA while controlling for both demographic factors and entrance test performance. In general, older people tend to get better grades than younger people do in Term 1. For the HMC group, people who speak English as their first language tend to have lower GPAs, while for the CAM group, those who are Canadian citizens tend to do worse in overall GPA. Lastly, for the CAM group the listening test is a strong predictor of how well the person will do, while for the HMC group none of the tests are significant predictors of GPA.

Table 9 – Standardized Regression Coefficients Predicting GPA for CAM and HMCStudents

	CAM Group				HMC Group			
	Term 1 GPA (Model 1)	Term 1 GPA (Model 2)	Term 2 GPA (Model 1)	Term 2 GPA (Model 2)	Term 1 GPA (Model 1)	Term 1 GPA (Model 2)	Term 2 GPA (Model 1)	Term 2 GPA (Model 2)
	(N=90)	(N=76)	(N = 138)	(N=121)	(N = 228)	(N=204)	(N = 203)	(N = 181)
Age	0.252*	0.24*	0.041	0.111	0.283*	0.28*	0.165*	0.137
Gender (Ref=female)	-0.035	-0.141	0.044	0.059	-0.091	-0.117	-0.116	-0.154*
Direct Entry (Ref = No)	-0.117	-0.196	-0.242*	-0.207*	-0.002	-0.025	-0.211*	-0.245*
First Language (Ref = No)	-0.007	0.095	-0.156	-0.179	-0.225*	-0.223*	-0.158*	-0.144
Canadian Citizen (Ref = No)	-0.276*	-0.327*	-0.211*	-0.176	-0.068	-0.07	0.007	0.017
NLS		-0.063		0.088		-0.017		-0.083
LISN		0.308*		0.247*		0.056		0.06
SP		0.156		-0.083				
R - Square	0.172	.327	.120	.179	0.209	0.227	0.163	0.208

*p<.05

The CAM and HMC groups had similar mean scores (2.08 and 2.12 respectively) on the NLS, but the CAM group scored significantly higher on the listening test (87 per cent) than the HMC comparison group (78 per cent) (Table 10). The CAM group also has higher mean scores on the other admission tests and high school grades, although only statistically significant for the English and Science mandatory admission tests. While the difference in entrance scores are slightly skewed in the favour of the CAM group to achieve higher grades, there is no statistically significant difference in overall GPA in both terms (Table 11).

Comparing GPA scores across years, however, is problematic, as there may have been changes to the grading standards or in the professors teaching the courses that would impact GPAs. In order to control for potential historical bias, the GPA of the CAM and HMC groups were centred. This was done by subtracting each group's respective GPA average from each GPA score, such that the centred mean GPA for each group shifted to a value of zero. This procedure allows us to evaluate the effectiveness of the program based on the distribution of the CAM and HMC groups rather than simply on the raw mean scores and serves as a control mechanism for changes in grading procedures.

Table 10 - High School Grades and Entrance Test Scores

	CAM	HMC	CAM Two terms	HMC Two terms
Grade 12+ English Mark	69.77	66.66	70.41	65.94
Grade 11+ Math Mark	66.74	65.23	66.21	65.4
Grade 11+ Biology Mark	69.95	66.1	72.02	66.71
Grade 11+ Chemistry Mark	69.19	63.35	69.81	63.58
Admission test - National Literacy Sample (Essay) (from 1 to 6)	2.08	2.12	2.1	2.1
Admission test - George Brown Writing Test (Grammar) (from 1 to 10)	5.65	5.6	5.78*	5.56*
Admission test - Listening (from 1 to 99)	86.62*	77.96*	88.16*	80.04*
Admission test - Writing Skills (from 1 to 100)	69.61	64.65	69.73	64.85
Admission test - Composite English Score (from 1 to 99)	50.67*	44.86*	51.46*	44.57*
Admission test - Pre-Algebra (from 1 to 100)	68.8	63.37	69.47	65.78
Admission test - Science (Allied Health) (from 1 to 43)	27.81*	22.01*	28.34*	22.65*
Admission test - Speaking (from 0 to 18)	14.11		13.03	

*p<.05

Table 11 - Change in GPA from Term 1 to Term 2 for CAM and HMC Comparison Group

	CAM Two terms	HMC Two terms
Term1 GPA	3.116245	3.196113
Term2 GPA	2.924509	2.972942
GPA Term 1 – GPA Term 2 Change	0.1917	0.2232

Tables 12 and 13 present regression models that determine if the CAM variable significantly predicts students' GPA. Table 12 uses the raw GPA score as the outcome variable and indicates that being in the CAM group is not related to GPA when controlling for demographic variables and entrance test scores. In this model, age, gender, direct entry, first language and citizenship each predict GPA in one or both terms. This table suggests that the difference in mean grades between the CAM and the HMC groups may be due to the demographic composition of the groups rather than based on the entrance grade averages.

In Table 13, when the centred GPA scores are used, the results differ and suggest that those who did not receive CAM had significantly lower grades in term 2 when controlling for background variables (Model 1). When entered in a step-wise fashion (Model 2) where the CAM variable is entered first and the demographic variables second, the CAM variable is significant in the first step but then loses significance after controlling for the entrance test scores. This suggests that differences in how individuals preformed on entrance tests was more important in determining their grades than whether or not they took they participated in CAM.

Table 12 – Standardized Regression Coefficients Predicting GPA for CAM and HMC Groups Using Raw GPA

	CAM and HMC Combined			
	Term 1 GPA (Model 1)	Term 1 GPA (Model 2)	Term 2 GPA (Model 1)	Term 2 GPA (Model 2)
	(N=318)	(N=287)	(N = 341)	(N = 311)
Age	0.270*	0.267*	0.119*	0.107
Gender (Ref=female)	-0.095	-0.113*	-0.066	-0.088
Direct Entry (Ref = No)	-0.042	-0.055	-0.245*	-0.270
First Language (Ref = No)	-0.15*	-0.139*	-0.167*	-0.168
Canadian Citizen (Ref = No)	-0.138*	-0.145*	-0.072	-0.068
CAM Group (REF = HMC)	-0.024	-0.066	0.052	0.014
NLS		-0.019		-0.038
LISN		0.081		0.094
R - Square	0.193	.215	.134	.169

*p<.05

Table 13 - Standardized Regression Coefficients Predicting GPA for CAM and HMC Groups using Centred GPA

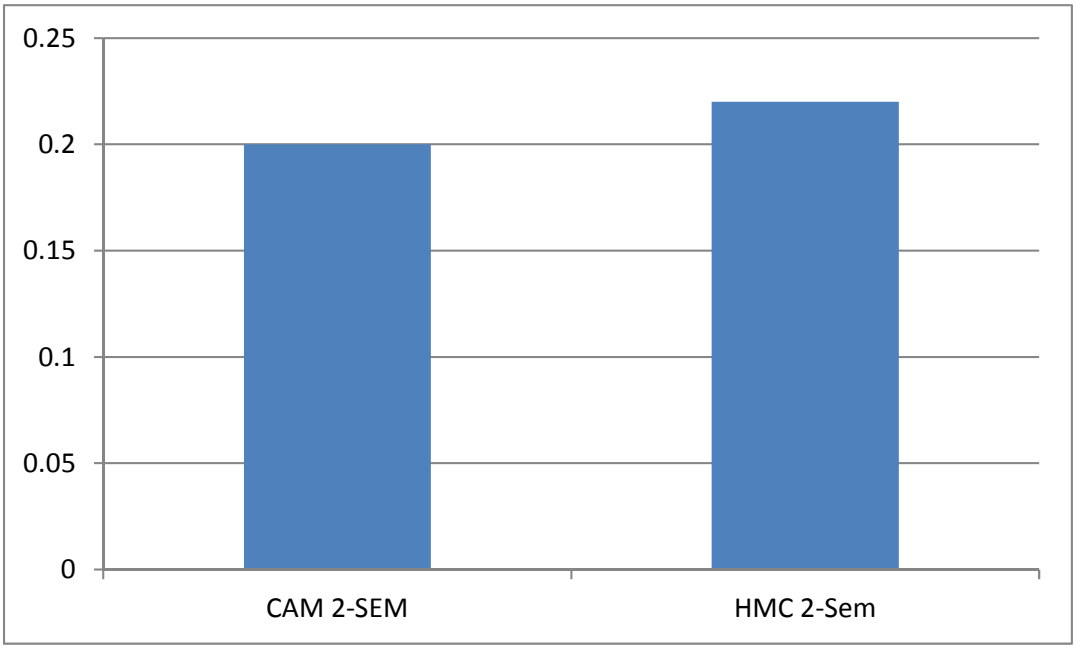
	CAM and HMC Combined			
	Term 1 GPA (Model 1)	Term 1 GPA (Model 2)	Term 2 GPA (Model 1)	Term 2 GPA (Model 2)
	(N=318)	(N=287)	(N = 341)	(N = 311)
Age	0.272*	0.270*	0.119*	0.108
Gender (Ref=female)	-0.095	-0.115*	-0.066	-0.088
Direct Entry (Ref = No)	-0.042	-0.056	-0.246*	-0.272*
First Language (Ref = No)	-0.151*	-0.141*	-0.168*	-0.169*
Canadian Citizen (Ref = No)	-0.139*	-0.146*	-0.072	-0.069
CAM Group (REF = HMC)	0.104	.060	0.135*	0.097
NLS		-0.019		-0.039
LISN		0.082		0.094
R - Square	.181	.198	.128	.136

*p<.05

Recall that a second method of evaluating the effectiveness of the CAM program was to compare the drop in grade averages from Term 1 to Term 2 and that if CAM is effective the drop in grades should be less for the CAM than the HMC comparison group. For each of these figures, data from the subsample of students who had grades in both semesters, 'Two terms',

was used (Table 11). Figure 2 shows the amount of the drop in GPA for both the CAM and HMC groups. While the drop in GPA from Term 1 to Term 2 was slightly smaller for the CAM group than the HMC group, this result was not statistically significant (Table 11).

Figure 2 - Drop in Grades from Term 1 to Term 2 for CAM and HMC Groups



In this section, the effect of CAM was evaluated by comparing students who participated in CAM to a historically matched group from previous years who did not receive CAM but scored below the cut-off points on the entrance tests such that they would have received CAM had it existed. One challenge with using this comparison group was that there may be differences in grading standards across years. Once GPA scores were centred, a slight beneficial effect of CAM was detected in the multiple regression model controlling for the demographic differences.

In testing the effectiveness of CAM to buffer falling grades in the second semester, CAM did not impact the change in GPA from Term 1 to Term 2. Therefore, when comparing those who received CAM to the historical comparison group there is limited evidence to suggest that CAM had an effect on grade outcomes.

Challenges

In addition to quantitative results, there are many important learnings that can be gleaned from the project based on the experience of developing and administering CAM. This section outlines challenges that were experienced during the course of the project to provide some areas to reflect on for institutions considering developing a linked remediation model.

Maintaining curriculum/linked curriculum

One of the significant challenges in developing, delivering, and sustaining this curriculum is the degree to which it is tied to the core nursing subjects. The initial development of the curriculum is exceptionally time consuming because the developer must have (or develop) a strong enough understanding of the nursing material to use it to meet the communications outcomes in a realistic, effective and substantial way.

The delivery of the curriculum is also dependant on having a solid enough base in the nursing material to be able to use it in the teaching and learning activities and interpret student responses appropriately, even if they don't exactly match the answer keys created by the curriculum developer. For many of the communication activities to work effectively, the communications teacher depends on the students having already covered material in their core nursing class(es) to which the adjunct course is tied. This requires the core subject teachers to provide course outlines well before the beginning of the semester and then to stick faithfully to the planned schedule. Unfortunately, statutory holidays, teacher absence/illness, emergency/weather closures, jury duty, or individual class needs can all mean modifications to the courses on which the adjunct depends as well as on the adjunct itself.

Sustaining the curriculum is also a challenge as any change to the core course needs to be reflected in the adjunct course. Having enough lead time to reorganize the curriculum or to redevelop activities or exercises to use new nursing topics was difficult, especially when changes were made to the nursing courses shortly before semester start-up or where resources for continual redevelopment are not available.

Appropriate faculty

The communications adjunct courses use Practical Nursing core content and texts to develop stronger reading, writing, listening, and speaking skills in the students. Achieving these outcomes requires someone with a solid understanding of communication skills and expertise in teaching communication. At the same time, the faculty members need to understand the nursing content well enough to use it comfortably and appropriately as the basis for developing the communication skills. Simply having answer keys provided by the curriculum developer is not enough to enable the faculty to use the material effectively; they need time to develop ease and familiarity with the nursing subject matter. It is a challenge to find qualified professors who can work with the nursing content while maintaining the primary focus on achieving the communications outcomes.

Student acceptance

Throughout the pilot of these adjunct courses, a significant number of students were extremely resistant to participating (refusal to attend classes, petitions, etc.) One core issue is the perception of unfairness when their colleagues have fewer class hours and can go home earlier or spend additional time on other subjects or preparing for placement. Despite initial advising, individual and group meetings and repeated explanations of the importance of communication skills, many students remained convinced either that their communication skills were sufficient or

that they could improve them on their own in some other way at some other time. Based on anecdotal evidence, this seemed to be particularly true of the native English speakers who didn't believe that they belonged in a class with those for whom English is a second language. Separate courses more specifically tailored to ESL and native speakers could increase relevance and acceptance.

The Practical Nursing program at George Brown is already a very heavy one. The addition of 4-6 additional hours per semester creates additional demands on students who are, in many cases, already juggling school, home and work commitments.

Unsuccessful students

The linked nature of the curriculum presents logistical problems when students do not pass the communication adjunct class but have passed their core nursing subjects. Because of the evaluation methods used in various core nursing subjects, some students may pass despite very weak communication skills. However, holding them back in the communications class presents the double difficulty of timetabling conflicts and separating the communication from the delivery/application of the content from the core courses. If a student were to repeat NURS1141 in second semester, then they would not be taking NURS1142 in conjunction with the course(s) to which it is linked. This greatly diminishes the value of the curriculum as it is designed.

The "non-standard" progression through the Practical Nursing program of many of the students also complicates the scheduling of the adjunct and the linking of the content with that in the core nursing subjects. Students frequently repeat semesters or have gaps in between semesters of active enrollment in the program. Students may pass the communications adjunct course in a semester but still be required to repeat the semester because of other courses that they have not passed.

Curriculum

Placement in the adjunct series of courses was an "all or nothing" proposition. If a student demonstrated relatively strong writing skills but weak speaking skills, he or she was included in the adjunct group. If a student demonstrated strong speaking/listening skills but weak writing skills, he or she was also included in the adjunct group. While the range of adjunct courses covered the various communication skill areas, there were definitely elements that were not particularly relevant to any given student in many cases. A more customized solution based on more individualized needs (e.g., ESL/native speaker, specific communication skill area(s)) would be much more complicated, but perhaps more effective and better received by the students.

In addition, the assessment components of the curriculum tended to be time consuming (particularly individual or paired speaking and listening assessments) and frequently relied on students working effectively together. While the reliance on a partner/colleague may well be a reality of the work environment that these students are preparing to enter, there were frequently issues where students complained that they were disadvantaged by the others with whom they were working.

Discussion

Due to the fact that there was no experimental control group that was randomly assigned at the time of the adjunct pilot project, it was necessary to construct comparison groups from non-random biased samples. Interpreting the effectiveness of a program based on such samples is less than ideal and should be interpreted with caution. However, by using multiple comparison groups the reliability of the results is increased if similar trends are found and more confidence can be placed in the results. As well, it is important to remember that this evaluation focused on the impact of CAM on grade performance. The CAM program had a number of additional goals that could not be evaluated with the available data. Thus, the results should be interpreted as the effectiveness of CAM in increasing academic performance.

The first way that the effectiveness of the program was analyzed was to look at overall GPA scores for the CAM group and the comparison groups. This part of the evaluation was done by comparing raw mean scores of the two groups and by developing a multivariate regression model controlling for demographic factors and entrance exam scores related to language performance. The non-CAM comparison group from the 2008/2009 cohort entered with higher high school grades and higher scores on entrance tests. Thus, these students would be expected to have performed at a higher level in college courses than students placed in CAM. However, the analysis showed that the CAM group performed at the same level as the non-CAM group, suggesting that the CAM program may have helped students who started off with weaker skills achieve similar academic grades. When the historically matched CAM (HMC) comparison group was used, however, students who participated in CAM did not differ from the HMC group. Thus, the results from the multiple regression models are mixed. Nonetheless, even the significant finding does not offer a strong case for the effectiveness of CAM, as grades of CAM students were not higher than their same cohort non-CAM peers, but simply did not differ. This finding is weak because it (1) is based on assumptions that may not be true (i.e. that students who were in CAM would receive lower grades than non-CAM students had they not been in the CAM) and (2) because the findings are not complimented by significant findings in the second analysis. Had both analyses yielded significant results more confidence could be placed in the effectiveness of CAM. These mixed results indicate that the CAM *may* have had an effect, but that the effect was weak even if it did.

The second method of evaluation was to compare the drop in GPA from Term 1 to Term 2. The results from this method of analysis also showed mixed results across the two comparison groups. For the same cohort non-CAM comparison group analysis, CAM students experienced a significantly lower drop in GPA from Term 1 to Term 2 than non-CAM students suggesting that CAM may have had a buffering effect. Alternatively, the historical comparison group analysis did not show a significant buffering effect of the CAM on GPA scores. Therefore the reliability of the findings is questionable, and no major effects of CAM can be found in buffering the drop in grades from Term 1 to Term 2.

The analysis undertaken here suggests that CAM did not have a strong effect on overall grade performance. While two out of the four evaluations of the effectiveness of the program showed that CAM had a positive effect on students' GPA, the results were weak and did not prove to be

reliable across comparison groups. It is important to remember however, that this evaluation tested the impact of CAM solely on GPA performance. CAM has a number of additional objectives, such as general language skill development, that would require additional data collection and analysis to determine the effectiveness of the program.

Next Steps

Given the challenges with the CAM, the cost associated with administering it in two semesters (est. $305,000) and the absence of a demonstrable significant, consistent benefit to the students, the courses are currently being phased out of the Practical Nursing program at George Brown. The cohort beginning the program in September 2011 will not have the Communication for Practical Nursing courses included in their program. The importance of strong communication skills across the four skill areas remains a challenge for many of the Practical Nursing students, however. Alternative strategies to strengthen these skills to support success both within their program and in the nursing profession will need to be further explored for greater effectiveness and viability than this CAM model has demonstrated.

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Appendices

Appendix 1: NURS 1141 Course Outline

COURSE OUTLINE

SCHOOL OF NURSING

COURSE NAME: **Communications for Practical Nursing I**

COURSE CODE: **NURS1141**

CREDIT HOURS: **84 (6 hours x 14 weeks)**

PREREQUISITES: **None**

COREQUISITES: **ANAT1052, NURS1026, NURS1029**

PLAR ELIGIBLE: **YES ( ) NO (X)**

EFFECTIVE DATE: January 07, 2009

NOTE TO STUDENTS: Academic Departments at George Brown College will NOT retain historical copies of Course Outlines. We urge you to retain this Course Outline for your future reference.

EQUITY STATEMENT: George Brown College values the talents and contributions of its students, staff and community partners and seeks to create a welcoming environment where equity, diversity and safety of all groups are fundamental. Language or activities which are inconsistent with this philosophy violate the College policy on the Prevention of Discrimination and Harassment and will not be tolerated. The commitment and cooperation of all students and staff are required to maintain this environment. Information and assistance are available through your Chair, Student Affairs, the Student Association or the Human Rights Advisor.

George Brown College is dedicated to providing equal access to students with disabilities. If you require academic accommodations visit the Disability Services Office or the Deaf and Hard of Hearing Services Office on your campus.

STUDENT RESPONSIBILITIES: Students should obtain a copy of the Student Handbook and refer to it for additional information regarding the grading system, withdrawals, exemptions, class assignments, missed tests and exams, supplemental privileges, and academic dishonesty. Students are required to apply themselves diligently to the course of study, and to prepare class and homework assignments as given. Past student performance shows a strong relationship between regular attendance and success.

COURSE DESCRIPTION:

This specialized, first-semester professional communications course is a six-hour per week adjunct that uses core course content for the development of critical thinking and problem solving abilities as well as writing, speaking and listening skills as applied to the practical nursing context. Using content-based activities, students practice the basics of therapeutic communications, produce short pieces of clear, concise writing, engage in vocabulary-building tasks, and apply critical thinking and decision making skills within the nursing process. Adjuncted courses include Anatomy and Physiology I (ANAT1052), Profession of Nursing (NURS1026), and Clinical Applications (NURS1029).

Skill	L	P	E	Skill	L	P	E
1. communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience	X	X	X	7. locate, select, organize and document information using appropriate technology and information sources			
2. respond to written, spoken or visual messages in a manner that ensures effective communication	X	X	X	8. show respect for the diverse opinions, values, belief systems, and contributions of others		X	
3. execute mathematical operations accurately				9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals		X	X

Skill	L	P	E	Skill	L	P	E
4. apply a systematic approach to solve problems	X	X	X	10. manage the use of time and other resources to complete projects		X	
5. use a variety of thinking skills to anticipate and solve problems	X	X	X	11. take responsibility for one's own actions, decisions and consequences		X	
6. analyze, evaluate, and apply relevant information from a variety of sources		X	X				

COURSE OUTCOMES:

- Upon successful completion of this course the students will have reliably demonstrated the ability to:
- use or analyze verbal and non-verbal therapeutic communications within the nurse, client or family relationship (indirect)
- provide accurate, detailed and concise oral and written descriptions of visual analyses
- explain detailed instructions, directions or process(es)
- give an opinion or recommend a solution to a problem
- describe events or objects using appropriate detail
- employ and/or decode medical terminology and abbreviations
- obtain and/or assess specific information to inform decision making in a related task
- apply reading strategies to obtain main ideas and/or specific details
- employ critical listening skills to obtain main ideas and/or specific details from digitalized information, partial lectures, dictations or oral reports
- apply written organizational, communicative and linguistic competencies to complete patient charts, case study analyses, care plans, reflective journals or summary descriptions
- apply specific critical thinking skills to carry out a variety of communication tasks in the practical nursing context: list, define, describe, identify, show, label, summarize, contrast, cluster, predict, apply, demonstrate, complete, solve, analyze, evaluate, explain, connect, compare, infer, integrate, plan, create, rewrite, recommend, support, and conclude

DELIVERY METHODS / LEARNING ACTIVITIES:

The instructional methods used in the classroom include group discussion, interviews, task-based and collaborative learning, role play/info gap (patient/client indirect contact), applied oral/aural skills practice, individual and group problem solving, interactive games, vocabulary-building activities, and reflective writing and peer feedback/teaching. As well, data collection and

analysis is used within the context of end of shift reports, case studies, nursing care plans and nursing charts. For some segments of the course, a computer laboratory, the library, multi-media material, and/or online resources may be used.

LIST OF TEXTBOOKS AND OTHER TEACHING AIDS:

Required:

Bamber, L., Ross, K. & Badaj, M. (2008). *Communications for Practical Nursing NURS1141: Workbook*. Toronto: Authors.

Day, R.A. et al. (2007). *Brunner and Suddarth's Textbook of Medical-Surgical Nursing.* 1st Cdn Ed. Lippincott, Williams & Wilkins: Philadelphia.

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Bacher, M. (2008). *Independent Learning Package: Medical Terminology*. Toronto: Author. [Posted to Profession of Nursing I (NURS1026) WebCT]

Lynn, P. (2008). *Taylor's Clinical Nursing Skills*. 2nd Ed. Lippincott Williams & Wilkins: Philadelphia.

Marieb, E. N. (2006). *Essentials of Human Anatomy & Physiology*. 8th Ed. Pearson/Benjamin Cummings: San Francisco.

Potter, P.A. & Perry, A.G. (2005). *Canadian Fundamentals of Nursing*. 3rd Ed. Ross-Kerr, Janet C. & Wood, Marilynn J., (Eds.), Mosby: Toronto.

Stedman, T. L. (2008). *Medical Dictionary for the Health Professions and Nursing*. 6th Ed. Lippincott Williams & Wilkins: Philadelphia.

Recommended / Optional:

Web Login: http://evolve.elsevier.com/perry/skills/
Web Login: http://media.georgebrown.ca/CHSN/nursingvideos/
College of Nurses of Ontario. (2008). Compendium of Standards of Practice for Nurses in Ontario. 2nd Ed. Toronto: Author. [Downloadable version at http://www.cno.org/pubs/compendium.html]

TESTING POLICY:

Active participation is essential to meet the requirements of this course. All evaluations are carried out in-class and require the demonstration of competency in four language areas: reading, writing, speaking and listening. In addition, students are required to demonstrate

vocabulary and specialized conceptual knowledge from all three core courses: ANAT1052, NURS1026 and NURS1029.

Attendance is mandatory for all classes. Students are expected to participate actively and will be assessed a participation grade. The participation grade includes self, peer and teacher feedback.

ASSIGNMENT POLICY:

All assignments must be completed in-class. Except in unusual and verifiable circumstances, work performed in class cannot be made up. Students are advised to keep all marked assignments, feedback, and the course outline. In cases of disagreement over marks or work completion, assignments must be produced by the student. For School of Nursing policies regarding class assignments and missed tests, the student is referred to the School of Nursing Policy Handbook.

EVALUATION SYSTEM ANAT1052:

Assessment Tool:	**Description:**	**Outcomes assessed:**	**EES assessed:**	**Date / Week:**	**% of Final Grade:**
Quiz #1	multiple choice**,** critical listening, visual analysis, short answer (skin/electrolytes)	2,6,8,9,11	1,2,5	4	10
Assignment (in-class)	reading for main ideas, short answer (osteoporosis)	8,11	1,2,5,9,10	4	5
Quiz #2	reading for main ideas, short answer, critical listening (muscle/skeletal)	2,6,8,9,11	1,2,5	7	10
Assignment (in-class)	summary description (nervous)	3,6,8,10,11	1,2,5,9,10	7	5
Assignment (in-class)	visual analysis, short answer (special senses)	2,6,9,11	1,2,5	9	5
Assignment (in-class)	short answer (cardio diagrams)	3,6,8,9,11	1,2,5,9,10	10	5
Quiz #3	critical listening, visual analysis, short answer (special senses/nervous)	2,6,9,11	1,2,5	10	10
Assignment (in-class)	reading for main ideas, short answer (lung cancer)	8,11	1,2,5,9,10	12	10
Participation	teacher, peer, and self	2,3,4	1,2,8,9,10	5,9,12	15
				Total:	**75%**

EVALUATION SYSTEM NURS1026:

Assessment Tool:	Description:	Outcomes assessed:	EES assessed:	Date / Week:	% of Final Grade:
Assignment (in-class)	concept map, final draft paragraph (3 traits of good PN)	4, 6,10,11	1,2,5,10,11	3	10
Assignment (in-class)	final draft paragraph (family presence during CPR)	4, 6,10,11	1,2,5,10,11	5	10
Assignment (in-class)	reading for main/specific ideas, short answer (group theory)	8,11	1,2,5	6	5
Assignment (in-class)	first draft paragraph (client abuse reflection)	2,4,5,10,11	1,2,5,10	9	5
Quiz #1	first draft paragraph (accountability); cluster concepts (case study)	4,9,10,11	1,2,5,10,11	10	10
Case Analysis (in-class)	concept map, first draft, peer revision/edit (teaching activities), final draft	4,6,10,11	1,2,8,9, 10	12	20
Participation	teacher, peer, and self	2,3,4	1,2,8,9, 10	4,6,11	15
				Total:	**75%**

EVALUATION SYSTEM NURS1029:

Assessment Tool:	Description:	Outcomes assessed:	EES assessed:	Date / Week:	% of Final Grade:
Assignment (in-class)	short answer (verbal vs. non-verbal)	6,9,10,11	1,2,5	2	5
Quiz #1	short answer (therapeutic communications)	1,4,11	1,2,5	3	10
Critical Listening	short answer (medical terminology)	1,9,11	1,2,5	4	5
Assignment (in-class)	interview, short answer	1,4,11	1,2,5	5	5

Assessment Tool:	Description:	Outcomes assessed:	EES assessed:	Date / Week:	% of Final Grade:
Assignment (in-class)	short answer (documentation checklist)	1,4,10,11	1,2,6	6	5
Quiz #2	transcription of medical terminology	6,8,10,11	1,2,5,6	9	10
Assignment (in-class)	summary description	3,6,8,10,11	1,2,5,9,10	10	5
Assignment (in-class)	short answer (create problem statement from assessment data)	4,6,8,10,11	1,2,5,6	11	5
Quiz #3	critical listening, short answer, multiple choice (extract data from oral report)	6,9,11	1,2,5,6	12	10
Participation	teacher, peer, and self	2,3,4	1,2,8,9,10	4,9,11	15
				Total:	**75%**

ORAL INTERVIEW EVALUATION SYSTEM:

Assessment Tool:	Description:	Outcome(s) assessed:	EES assessed:	Date / Week:	% of Final Grade:
Oral Interview	visual analysis, critical listening, info gap, case analysis	1,2,4,6,7,8,9, 11	1,2,4,5	13,14	25
				Total:	25%

<u>Summary of Criteria to Pass</u>:

Students must achieve a grade of C- (60) or better in each of the three core course evaluation components in order to pass the course. These will be averaged to compute an overall Core Course Evaluation worth 75% of the total grade. This will be combined with a final oral interview (25%) for a total of 100%. If any of the core course evaluations are not successfully satisfied, the student will receive a grade of "standing deferred" (SD). The student will be promoted to the next semester and will be required to achieve a grade of C- (60) or better in NURS1142 by mid-Term. If this requirement is not satisfied, the student will receive a grade of F in NURS1141 and will not be promoted to the third semester.

GRADING SYSTEM
The passing grade for this course is: C- (60)

A+	90-100	4.0	B+	77-79	3.3	C+	67-69	2.3	F	Below 60	0.0
A	86-89	4.0	B	73-76	3.0	C	63-66	2.0			
A-	80-85	3.7	B-	70-72	2.7	C-	60-62	1.7			

Excerpt from the College Policy on Academic Dishonesty:
The *minimal* consequence for submitting a plagiarized, purchased, contracted, or in any manner inappropriately negotiated or falsified assignment, test, essay, project, or any evaluated material will be a grade of zero on that material.

To view George Brown College policies please go to www.georgebrown.ca/policies

ANAT1052 TOPICAL OUTLINE:

Week	Topic / Task	Outcomes	Content / Activities	Resources
1	***HOLIDAYS***			
2	Communicating Explanations: Basic Fluids and Electrolytes	3,5,6,8,9, 10,11	critical listening (identification of electrolyte definitions); label diagrams; jigsaw	Marieb pp. 10-12; 516; Wkbk Unit 2
3	Communicating Observations: The Integumentary System	1,3,6,8,9, 10,11	label diagrams; critical listening (identification of infections and allergies); report and record observations; critical reading (scavenger hunt)	Marieb Ch 4, pp. 110-121; visuals; Wkbk Unit 3
4	Communicating Instructions: The Skeletal System	5,6,8,9,10, 11	label diagrams; critical listening; read for main/specific ideas about osteoporosis; give oral instructions; jigsaw, Quiz #1	Marieb Ch 5, pp. 133-7; 155-7; 163-5; Wkbk Unit 4
5	Communicating about Processes: The Muscular System	5,6,8,9,10, 11	label diagrams; listening cloze (muscle physiology); jigsaw	Marieb Ch 6, pp. 178-182; 191; 210; Wkbk Unit 5
6	Communicating Explanations: The Nervous System I	3,5,6,8,9, 10,11	label diagrams; critical listening (identification of nervous system definitions); jigsaw	Marieb Ch 7, pp. 224-30; 241-44; 247-49; Wkbk

Week	Topic / Task	Outcomes	Content / Activities	Resources
				Unit 6
7	Communicating Explanations: The Nervous System II	6,8,10,11	summary description, Quiz #2	Wkbk Unit 6
8	***INTERSESSION WEEK***			
9	Communicating Observations: Special Senses	1,3,6,8,9, 10,11	label diagrams; critical listening (identification of eye diseases); report and record observations; critical reading (scavenger hunt)	Marieb Ch 8, pp. 273-4; visuals; Wkbk Unit 7
10	Communicating about Processes: Cardiovascular System I	6,9,11	label diagrams; listening cloze (cardiac cycle), Quiz #3	Marieb Ch 11, pp. 349-54; 357-8; 361; Wkbk Unit 8
11	Communicating about Processes: Cardiovascular System II	3,6,8,9,10, 11	jigsaw; critical listening (oral reports)	Marieb Ch 11, pp. 349-354; 357-8; 361; Wkbk Unit 8
12	Communicating Instructions: The Respiratory System	5,6,8,9,11	label diagrams; read for main/specific ideas about lung cancer; give oral instructions	Marieb Ch 13, pp. 432-3; 442-44; Wkbk Unit 9
13	*CLINICAL VISIT*			
14, 15	Oral Interviews	1,2,4,6,7, 8,9,11	visual analysis, critical listening, info gap, case analysis	

Please note: this schedule may change as resources and circumstances require.

For information on withdrawing from this course without academic penalty, please refer to the College Academic Calendar: **http://www.georgebrown.ca/Admin/Registr/PSCal.aspx**

NURS1026 TOPICAL OUTLINE:

Week	Topic / Task	Outcomes	Content / Activities	Resources
1	Overview of Course	4,8,10,11	icebreaker; create concept map of review article; write personal response	course outline; Wkbk Unit 1
2	Communicating Explanations I: Roles and Functions of a Nurse	4,9,10,11	listening cloze; reflect on word connotations; connect reflections to nursing role; create concept map (character traits of nurse)	Potter & Perry, Ch 2; "You Gotta Be" by Des'ree; Wkbk Unit 2
3	Communicating Explanations II: Roles and Functions of a Nurse	4,10,11	first draft; peer revision; final draft paragraph (character traits of nurse)	Potter & Perry, Ch 2; Wkbk Unit 3
4	Communicating Differences: Standards of Practice I	4,10,11	ethical dilemma case study; group brainstorm; create concept map (advantages/disadvantages of family presence during CPR); first draft	*Standards of Practice*; Potter & Perry, 43-48, 267, 1665-68; Wkbk Unit 4
5	Communicating Differences: Standards of Practice II	4,8,10,11	peer revision of first draft; final draft paragraph (family presence)	Wkbk Unit 5
6	Communicating Explanations: Group Theory and Critical Thinking	4,6,7,8,9, 10,11	review group development theory; create synonym list for critical thinking attitudes; match critical thought with behavior; create action plan for case study	Tuckman's Theory Potter & Perry, pp. 166-79; Wkbk Unit 6
7	Communicating about Categorizations: The Nursing Process	4,6,8,11	cluster information for client assessment (case studies); orally defend rationale	Potter & Perry, Ch 12, pp. 183-229; Wkbk Unit 7
8	***INTERSESSION WEEK***			
9	Communicating to Self-Reflect: Reflective Practice I	4,6,9,10	critical listening (video series about abuse); write self-reflection response about client abuse (first draft)	*Abuse Prevention* (CNO video series); Wkbk Unit 8
10	Communicating to Self-Reflect: Reflective Practice II	5,7,8,9,10, 11	define professional accountability; analyze case studies (identify strengths/weaknesses of nurses); present case study and rationale; write self-reflection response (accountability);	Case Scenarios (RPNAO); Wkbk Unit 9
11	Teaching and Learning I	3,4,5,6,8, 9,11	identify and create mind map of learning domains (peer teach); analyze case study to identify intervention applied to which domain and give rationale	Potter & Perry, Ch 17, pp. 316-52; Wkbk Unit 10
12	Teaching and Learning II	5,6,7,8,10, 11	case study, concept map, first draft, revision, final draft	Wkbk Unit 11
13	*CLINICAL VISIT*			
14, 15	Oral Interviews	1,2,4,6,7, 8,9,11	visual analysis, critical listening, info gap, case analysis	

Week	Topic / Task	Outcomes	Content / Activities	Resources
Please note: this schedule may change as resources and circumstances require. For information on withdrawing from this course without academic penalty, please refer to the College Academic Calendar: **http://www.georgebrown.ca/Admin/Registr/PSCal.aspx**				

NURS1029 TOPICAL OUTLINE:

Week	Topic / Task	Outcomes	Content / Activities	Resources
1	***HOLIDAYS***			
2	Building Interpersonal Communication Skills	1,6,9,10,11	edit/revise first draft journal assignment (from NURS1029); differentiate verbal/non-verbal communication skills (video analysis)	*Lost in Translation* video; Potter & Perry, pp. 264-5; 271-2; 289-90; Wkbk Unit 2
3	Therapeutic Communications I	1,4,6,9,11	define and demonstrate TC skills; evaluate TC samples applied to nurse-client relationship; critical listening (Med Term: ROM); critical listening (end of shift report) & note taking	Wkbk Unit 3
4	Therapeutic Communications II	5,6,7,8,9, 11	define and demonstrate five practices of caring; problem solve case studies; obtain information to inform decision-making (info gap); critical listening (Med Term: feeding & swallowing)	Potter & Perry, pp. 271-9; Wkbk Unit 4
5	Therapeutic Communications III	1,6,9,11	apply question and clarification techniques in a nurse-client interview; transcribe long hand to abbr. (written report); critical listening and note taking (lecture)	Potter & Perry, pp. 265-67; 423-4; Wkbk Unit 5
6	Applying the Nursing Process	4,6,7,10,11	use check list to assess written report; cluster assessment to write problem statement in care plan; obtain and information to inform decision-making (Med Term: urinary elimination)	Wkbk Unit 6
7	***FAMILY DAY***			
8	***INTERSESSION WEEK***			
9	The Nurse-Client Relationship: Cognitive Impairment	6,7,9,10	obtain and information to inform decision-making (info gap); critical listening (Med Term: TPR); transcribe abbr. to long hand (written report)	Wkbk Unit 7, Potter & Perry, pp. 562-599; Lynn, pp. 3-26
10	The Nursing Process I	6,7,9,10	critical listening and note taking (digitalized information); write summary of notes; critical listening (Med Term: PPE)	Potter & Perry, pp. 563-99; Wkbk Unit 8

Week	Topic / Task	Outcomes	Content / Activities	Resources
11	The Nursing Process II	6,7,9,10	use check list to assess written report; cluster assessment to write problem statement in care plan	WKbk Unit 9
12	The Nursing Process III	1,6,7,9,10	critical listening and note taking (digitalized information); obtain information to inform decision-making (case study)	WKbk Unit 10
13	*CLINICAL VISIT*			
14, 15	Oral Interviews	1,2,4,6,7, 8,9,11	visual analysis, critical listening, info gap, case analysis	

Please note: this schedule may change as resources and circumstances require.

For information on withdrawing from this course without academic penalty, please refer to the College Academic Calendar: **http://www.georgebrown.ca/Admin/Registr/PSCal.aspx**

Appendix 2: NURS 1142 Course Outline

COURSE OUTLINE
SCHOOL OF NURSING

COURSE NAME: Communications for Practical Nursing II
COURSE CODE: NURS1142
CREDIT HOURS: 56 hrs. (4 x 14 weeks)
PREREQUISITES: NURS1141
COREQUISITES: NURS1030
PLAR ELIGIBLE: YES ( ) NO (X)
EFFECTIVE DATE: January 07, 2009

NOTE TO STUDENTS: Academic Departments at George Brown College will NOT retain historical copies of Course Outlines. We urge you to retain this Course Outline for your future reference.

EQUITY STATEMENT: George Brown College values the talents and contributions of its students, staff and community partners and seeks to create a welcoming environment where equity, diversity and safety of all groups are fundamental. Language or activities which are inconsistent with this philosophy violate the College policy on the Prevention of Discrimination and Harassment and will not be tolerated. The commitment and cooperation of all students and staff are required to maintain this environment. Information and assistance are available through your Chair, Student Affairs, the Student Association or the Human Rights Advisor.

George Brown College is dedicated to providing equal access to students with disabilities. If you require academic accommodations visit the Disability Services Office or the Deaf and Hard of Hearing Services Office on your campus.

STUDENT RESPONSIBILITIES: Students should obtain a copy of the Student Handbook and refer to it for additional information regarding the grading system, withdrawals, exemptions, class assignments, missed tests and exams, supplemental privileges, and academic dishonesty. Students are required to apply themselves diligently to the course of study, and to prepare class and homework assignments as given. Past student performance shows a strong relationship between regular attendance and success.

COURSE DESCRIPTION:

This specialized, second-semester professional communications course is a four-hour per week adjunct that uses core course content for the development of critical thinking and problem solving abilities as well reading, writing, speaking and listening skills as applied to the clinical context. Students use therapeutic communications, medical terminology, and assessment skills to complete clinical tasks such as nursing care plans, MAR/Medication verification, pain assessments, and self-reflections. Reading for main and specific factual information is practiced. Assessment is based on the student's demonstration of all abilities during in-class activities. The adjuncted course is Clinical Applications II (NURS1030).

ESSENTIAL EMPLOYABILITY SKILLS:

As mandated by the Ministry of Training, Colleges and Universities essential employability skills (EES) will be addressed throughout all programs of study. Students will have the opportunity to learn (L) specific skills, to practice (P) these skills, and/or be evaluated (E) on the EES outcomes in a variety of courses. The EES include communication, numeracy, critical thinking & problem solving, information management, interpersonal and personal skills. The faculty for this course has indicated which of the EES are either Learned (L), Practiced (P) or Evaluated (E) in this course:

Skill	L	P	E	Skill	L	P	E
1. communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience	**X**	**X**	**X**	7. locate, select, organize and document information using appropriate technology and information sources			
2. respond to written, spoken or visual messages in a manner that ensures effective communication	**X**	**X**	**X**	8. show respect for the diverse opinions, values, belief systems, and contributions of others		**X**	
3. execute mathematical operations accurately				9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals		**X**	

Skill	L	P	E	Skill	L	P	E
4. apply a systematic approach to solve problems	X	X	X	10. manage the use of time and other resources to complete projects		X	
5. use a variety of thinking skills to anticipate and solve problems		X	X	11. take responsibility for one's own actions, decisions and consequences		X	
6. analyze, evaluate, and apply relevant information from a variety of sources		X	X				

Upon successful completion of this course the students will have reliably demonstrated the ability to:

1. use or analyze verbal and non-verbal therapeutic communications within the nurse, client, family or healthcare team relationships (indirect)
2. explain complex process(es) in detail
3. give an opinion or recommend a solution to a problem
4. use written competencies to describe events, observations, problems and/or plans using clear, concise and accurate language
5. employ and/or decode medical terminology and abbreviations
6. obtain and/or assess specific information to inform decision making in a related task
7. apply reading strategies to obtain main ideas and/or specific details
8. employ critical listening skills to obtain main ideas and/or specific details from digitalized information, partial lectures, dictations or oral reports
9. apply specific critical thinking skills to carry out a variety of communication tasks in the clinical context: list, define, describe, identify, summarize, cluster, predict, apply, demonstrate, complete, solve, analyze, evaluate, explain, infer, plan, create, and recommend.

DELIVERY METHODS / LEARNING ACTIVITIES:

The instructional methods used in the classroom include group discussion, task-based and collaborative learning, role play/info gap (patient/client/family/healthcare team indirect contact), applied oral/aural skills practice, individual and group problem solving, transcription, and note taking. Critical listening and reading tasks are used extensively. For some segments of the course, a computer laboratory, the library, multi-media material, and/or online resources may be used.

LIST OF TEXTBOOKS AND OTHER TEACHING AIDS:

Required:

Bacher, M. (2008). *Independent Learning Package: Medical Terminology*. Toronto: Author. [Posted to Profession of Nursing I (NURS1026) WebCT]

Bamber, L., & Kenny, N. (2008). *Communications for Practical Nursing NURS1142: Workbook*. Toronto: Authors.

Day, R.A. et al. (2007). *Brunner and Suddarth's Textbook of Medical-Surgical Nursing.* 1st Cdn Ed. Lippincott, Williams & Wilkins: Philadelphia.

Fortinash, K. & Holoday Worret, P. (2008). *Psychiatric Mental Health Nursing*. 4th Ed. Elsevier: St. Louis.

Lynn, P. (2008). *Taylor's Clinical Nursing Skills*. 2nd Ed. Lippincott Williams & Wilkins: Philadelphia.

Potter, P.A. & Perry, A.G. (2005). *Canadian Fundamentals of Nursing*. 3rd Ed. Ross-Kerr, Janet C. & Wood, Marilynn J., (Eds.), Mosby: Toronto.

Stedman, T. L. (2008). *Medical Dictionary for the Health Professions and Nursing*. 6th Ed. Lippincott Williams & Wilkins: Philadelphia.

Recommended / Optional:

College of Nurses of Ontario. (2008). *Compendium of Standards of Practice for Nurses in Ontario*. 2nd Ed. Toronto: Author. [Downloadable version at http://www.cno.org/pubs/compendium.html]

TESTING POLICY:

Active participation is essential to meet the requirements of this course. All evaluations are carried out in-class and require the demonstration of competency in four language areas: reading, writing, speaking and listening. In addition, students are required to demonstrate vocabulary and specialized conceptual knowledge from NURS1030. Attendance is critical to successful completion of this course. The student is strongly advised to attend all classes.

ASSIGNMENT POLICY:

All assignments must be completed in class. Except in unusual and verifiable circumstances, work performed in class cannot be made up. Students are advised to keep all marked assignments, feedback, and the course outline. In cases of disagreement over marks or work completion, assignments must be produced by the student. **For School of Nursing policies regarding class assignments and missed tests, the student is referred to the *School of Nursing Policy Handbook*.**

EVALUATION SYSTEM:

Assessment Tool:	Description:	Outcomes assessed:	EES assessed:	Date / Week:	% of Final Grade:
Quiz #1	short answer, critical listening, problem solve	1,3,6,9	1,2,5	3	10
Oral Interview	role play, info gap, critical listening	1,2,4,5,6,7,8,9	1,2,4,5	7	25
Quiz #2	info gap, critical listening, short answer	1,3,4,5,6,8,9	1,2,5	9	10
Quiz #3	short answer	1,4,5,9	1,2,5	10	10
Quiz #4	paragraph; short answer; info gap	1,2,3,4,5,6,7,9	1,2,4,5,6	12	15
Oral Interview	critical listening, info gap, case analysis, explain a complex process in detail	1,2,4,5,6,7,8,9	1,2,4,5	13,14	30
				TOTAL:	**100%**

Summary of Criteria to Pass:

Students must achieve a grade of C- (60) or better in order to pass the course. If C-(60) or better is not achieved, the student will receive a grade of "standing deferred" (SD). The student will be promoted to the next semester and will be required to achieve a grade of C- (60) or better in NURS1143 by mid-Term. If this requirement is not satisfied, the student will receive a grade of F in NURS1142 and will not be promoted to the fourth semester.

GRADING SYSTEM
The passing grade for this course is: C- (60)

A+	**90-100**	**4.0**	**B+**	**77-79**	**3.3**	**C+**	**67-69**	**2.3**	**F**	**Below 60**	**0.0**
A	**86-89**	**4.0**	**B**	**73-76**	**3.0**	**C**	**63-66**	**2.0**			
A-	**80-85**	**3.7**	**B-**	**70-72**	**2.7**	**C-**	**60-62**	**1.7**			

Excerpt from the College Policy on Academic Dishonesty:

The *minimal* consequence for submitting a plagiarized, purchased, contracted, or in any manner inappropriately negotiated or falsified assignment, test, essay, project, or any evaluated material will be a grade of zero on that material.

To view George Brown College policies please go to www.georgebrown.ca/policies

NURS1142 TOPICAL OUTLINE

	Topic / Task	Outcomes	Content / Activities	Resources
1	Communications in the Clinical Context	1,5,8,9	identify and demonstrate verbal vs. non-verbal communication; explain value of therapeutic communication techniques; role play (orientation to clinical setting); critical listening (nurse-client relationship)	Wkbk Unit 1
2	Oral Medications	1,3,5,7,8,9	critical listening (med forms); critical listening and note taking (language barriers); student-created role play (meds + language barrier); critical reading and problem solve (Med Term: infections and integumentary conditions)	Potter and Perry, pp. 612, 620; Wkbk Unit 2
3	Nursing Care Plans Medication Errors	1,2,3,4,5, 6,7,9	complete care plans (pairs); MAR/script/patient ID verification tasks; obtain information to inform decision-making (various conditions); Quiz #1	Day, p. 1069; Potter and Perry, pp. 1377-81; Wkbk Unit 3
4	Subcutaneous Injection O2 Therapy	1,3,4,5,8,9	visual analysis; case study (subcutaneous injection); critical listening and note taking (oxygen)	Lynn, Student Resource (web); Wkbk Unit 4
5	Basic Sterile Techniques	1,2,7,8,9	critical reading (Med Term: sterile techniques); critical listening and note taking (sterile procedure); case study (sterile dressing)	*Basic Sterile Techniques* (video); Lynn, Student Resource (web); Wkbk Unit 5
6	Prevention of Falls in the Older Adult	1,3,4,5,6, 8,9	assessment of older adult (role play/info gap); cluster assessment to write problem statement in care plan; obtain information to inform decision-making (oral report); critical listening (Med Term: cerebrovascular disorders)	*Falls Prevention* (NBP); *Falls in the Elderly: A Report of the OMA* (OMA); Wkbk Unit 6
7	Oral Demonstration	1,2,4,5,6, 7,8,9	critical listening, info gap, case analysis	
8	*INTERSESSION WEEK*			
9	Assessment and Management of Pain	1,2,5,8,9	apply Braden Scale (role play); instruct caregiver about skin changes (role play); critical listening (Med Term: respiratory); Quiz #2	Wkbk Unit 7

	Topic / Task	Outcomes	Content / Activities	Resources
10	Catheterization	1,3,4,5,8,9	case study (female catheterization); critical thinking and note taking (diabetes); Quiz #3	Lynn, Student Resource (web); Wkbk Unit 8
11	Enteral Nutrition	1,3,4,5,8,9	case study (enteral feeding); critical read and problem solve (Med Term: enteral feeding); critical listening and note taking (nasogastric tube)	Lynn, Student Resource (web); *Enteral Feeding Tubes* (video); Wkbk Unit 9
12		1,2,3,4,5, 6,7,9	Quiz #4	Wkbk 10
13	*Review*			
14, 15	Oral Interviews	1,2,4,5,6, 7,8,9	critical listening, info gap, case analysis	

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