
Building the Case for Essential Skills at SIAST

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Career Enhancement Programs

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Summary

Can a 20 hour Essential Skills (ES) intervention make a difference in learner success? By working with Saskatchewan Institute of Applied Science and Technology (SIAST) faculty and learners in programs not familiar with ES, the research team sought to prove the value of supporting ES development in SIAST learners and integrating ES in SIAST curriculum. Eight programs in health, business and community services divisions were identified and 102 learners were pre-tested to determine who was below the ES level required for success in programs and employment. Pre-testing using the Test of Workplace Essential Skills (TOWES) confirmed that 88 of the 102 learners tested were at or below Level 2 and lacking in Essential Skills. Findings indicated that the vast majority of the 31 learners who completed a 20 hour ES intervention increased their scores in Reading, Document Use and Numeracy. As a result, many faculty members have expressed a desire to explore ways to continue supporting ES development in future learners and programs.

Business Case

Saskatchewan is currently enjoying the benefits of a relatively strong economy. This is evidenced by the increased rate of population growth, low unemployment rate, expanded housing starts and increasing sales of natural resources such as oil and gas, potash, uranium and diamonds. In order to meet the demands of this growth, it is important to have access to a skilled workforce ready to fill jobs in many sectors of the economy. “Over the next several years, the largest number of employment opportunities are projected to occur in trades, transportation and equipment operators, sale and service, and business, finance, and administration occupations.” (Saskatchewan Ministry of Advanced Education, Employment and Immigration and Service Canada, 2010, p.1)

Research has shown that ES are particularly important to success on the job and in succeeding in technical training programs required to meet growing labour demands. Research has also shown that a large proportion of Saskatchewan adults do not have the level of ES required for satisfactory job performance in these programs or jobs. This is particularly true for people of Aboriginal ancestry, immigrants and older workers. (Statistics Canada, 2005). A small but growing group within the Continuing Education division of SIAST recognizes that improving Essential Skills in learners will lead to increased retention and success in SIAST programs and at the workplace. In order to build recognition and capacity for ES in other parts of the institution, the co-researchers of Joan Patterson and Jennifer Bain targeted several first year program areas from Health and Science, Community Services and Business divisions for the purpose of this research project.

Partnerships

This project was based on a number of existing partnerships within SIAST. Deans of Business and Community Services made an initial commitment to the project. In addition, the Director of Applied Research facilitated the ethics review, the Program Head of Basic Education provided the support necessary for us to hire one of his best instructors as our ES practitioner, and the Program Head in Learning Services agreed to provide ongoing support to learners who tested too low to meet project criteria.

Initially five programs agreed to participate: Aboriginal Police Preparation, Continuing Care Assistant, Youth Care Worker, Educational Assistant, and Office Education. When some of these initial programs had difficulty moving forward, three additional programs were recruited - Business Certificate, Practical Nursing and Career Enhancement.

The most important relationship and partnership of the project was the one with learners. From the start and throughout, they were encouraged to see themselves as key members of an important partnership with SIAST, committed to increasing their own skills and success, and contributors to the national strategy and framework.

Awareness and Promotion

Awareness and promotion of our project began early September 2011 when the project manager took the opportunity to talk with a variety of program managers and instructors. Throughout the fall meetings were arranged with Program Managers and instructors to promote the project as an opportunity to increase learner success at no cost, while participating in an important national project.

The second phase of promotion was with learner groups. Forty minute Information Sessions were scheduled with each of the program areas, mostly during classroom hours. Learners were encouraged to participate in order to receive free assistance with homework and study skills, become more successful in their programs and careers, and have an opportunity to contribute to a national project. In addition, they were offered flexible time options for meeting with the ES Practitioner and a variety of attendance prizes.

There was a good initial reception to the information provided, particularly when instructors and program heads attended as well. In some cases, particularly if instructors and program managers were not present and when learners determined the project was voluntary, there was less enthusiasm. Some learners expressed concerns about 'adding' anything extra to their already busy schedules.

Essential Skills Interventions

Adult Education Principles

A number of adult learning principles guided the SIAST ES pilot project, including: showing respect, integrating into meaningful, relevant course materials, and building positive, supportive relationships. It was of paramount importance to acknowledge and use the wealth of experience that learners brought to the classroom. For example, an Educational Assistant (EA) practicum provided discussion points for integrating ES into the learner's assignment on developing lesson plans. Integrating ES materials into the course content was vital to engaging learners in the learning process. This was evident in an Aboriginal Police Preparation (APP) learner's comment about preparing for various police services exams. An ES strategy (*SNAP the Question*) was introduced, practiced and reinforced through the ES sessions. As one learner went on to say, "these sessions helped me prepare for the exams because they helped me think about what the question is really asking and helped me think about the quickest way to solve it."

Flexible tutoring times and accommodation of participants' class and personal schedules ensured learner engagement. For example, individual sessions occurred at 8 am, on the learner's lunch hour and in the early evening. Only two of the six program areas who participated in the intervention, APP and Career Enhancement (CE), made group ES sessions mandatory for their learners. In all six program areas, a variety of teaching materials and methods were employed to take into account learner differences in style, time, type and pace of learning. Prizes such as highlighters, pens, water bottles, and heart rate monitors were offered as incentives for participation and although they were well received, they weren't a primary reason for participation.

Professional Practitioner Skills

TOWES results, instructor observations and personal interviews were used to assess ES needs. Once screened into the study, participants self-selected for the intervention. Discussions with the program instructor(s) shed light on some of the challenges facing the group as well as individuals in the class. Initial interviews identified learner strengths and challenges. Open-ended questioning such as "how do you learn best?" enabled students to elaborate on the experience, skills and abilities that they brought to the learning situation.

Where applicable, authentic workplace documents were used to help learners practice document use skills. For instance, the Aboriginal Police Preparation (APP) program learners were given a factious car accident scenario and then asked to complete the actual Saskatchewan Government Insurance Accident Report form. Similarly, Practical Nursing learners made use of forms such as the Saskatchewan Practical Nursing Association Renewal form and the Regina Qu'Appelle Heath Region's Patient Care form to help reinforce document use skills.

The ES Practitioner's 30 years of working with adult learners in Adult Basic Education provided a wealth of experience, resources and insights into adult learners. Knowing the appropriate balance of learner-centered and instructor-centered teaching was also crucial when working with the various programs in this project. In the APP program, a more directive approach, as is desired by the nature of police culture, worked most effectively. Contrasting this directive approach was the more collaborative delivery style used in all the other programs.

Types of Interventions

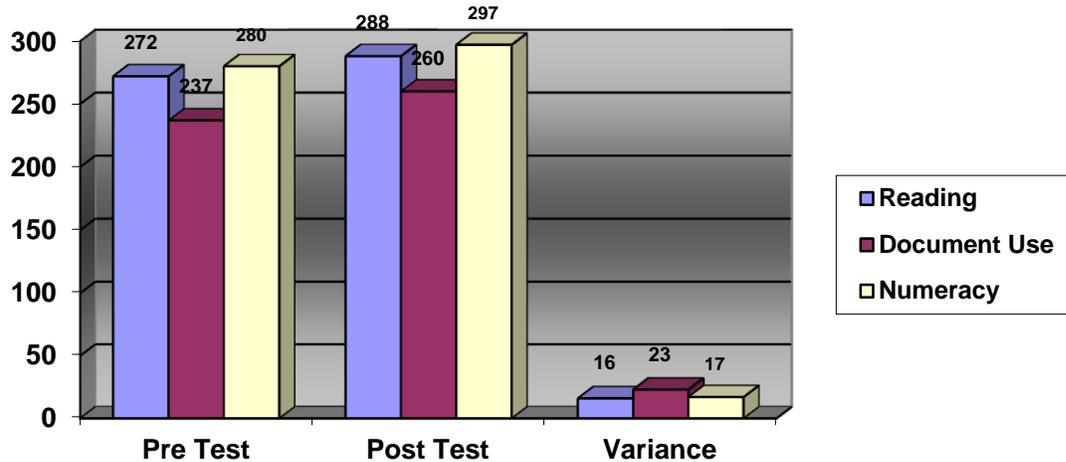
Eight different program areas participated in the pre-testing for this project, totalling 102 learners. Not all learners committed to the 20 hour intervention or wrote the TOWES post-test. A total of 32 learners completed the intervention and 31 learners were post-tested. This information is presented in Table 1.

Table 1 - Program Participation

Program Area	Number Tested	Number Who Began the Intervention	Number Who Completed the Intervention	Number Who Wrote the TOWES Post-Test
Aboriginal Police Preparation (APP)	24	23	15	15
Early Childhood Education (ECE)	8	2	2	2
Practical Nurse (PN)	6	3	3	3
Career Enhancement (CE)	11	11	11	11
Continuing Care Aide (CCA)	14	0	0	0
Educational Assistant (EA)	7	1	1	0
Youth Care(YC)	11	1	0	0
Business Certificate Programs (BCP)	21	1	0	0
TOTAL	102	42	32	31

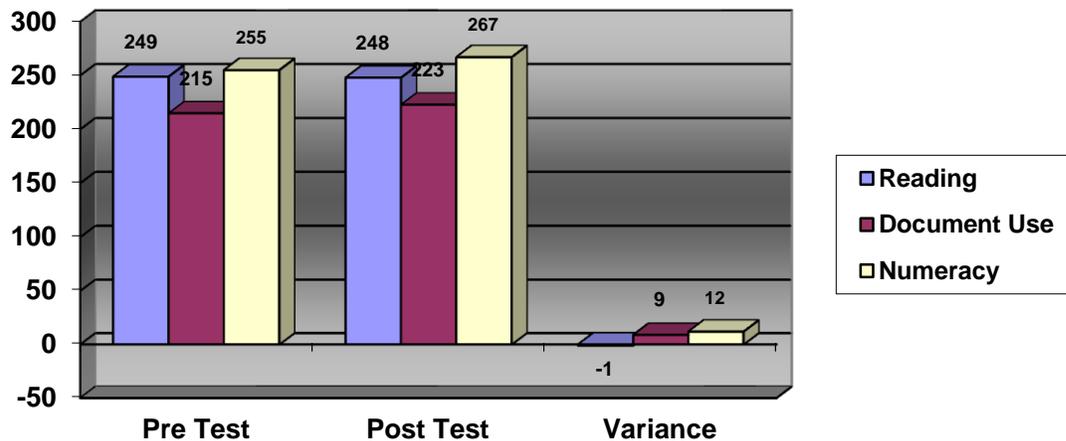
Graph 1 captures the overall gains in ES of project participants who completed the intervention and wrote the TOWES post-test. As can be seen, gains were made in all three areas with the most positive gain being in the area of document use (DU). Gains from pre-test to post-test (scale points from 237 to 260) reflect an 11% gain in DU skills.

Graph 1 - TOWES Average Score Gain All Groups (N = 31)



Graphs 2- 4 illustrate the ES gains made in each of the four program areas whose participants completed the 20 hour intervention and wrote the TOWES post-test.

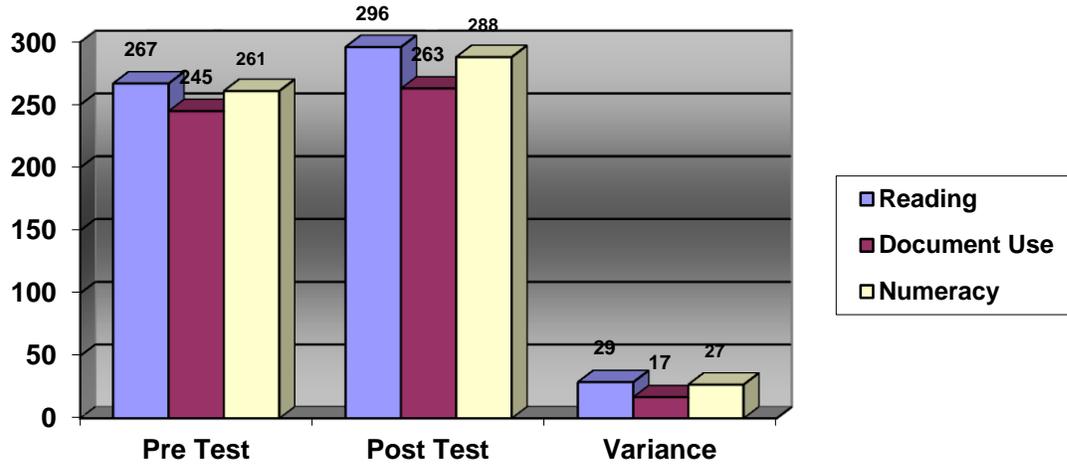
Graph 2 - Aboriginal Police Prep TOWES Score Gains (N = 15)



As can be seen from Graph 2, participants increased their pre-test scores in DU from 215 to 223. As well, Numeracy scores increased from 255 to 267.

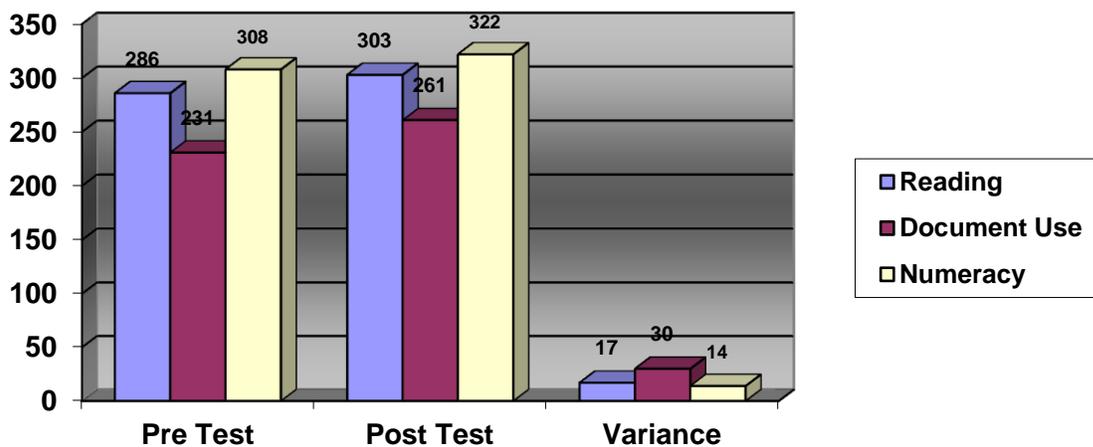
As can be seen in Graph 3, on average, participants increased their scores across all three subscales. Learners increased their scores in Reading from 267 to 296; in DU from 245 to 263; and in Numeracy from 261 to 288.

Graph 3 Career Enhancement TOWES Average Score Gains N = 11



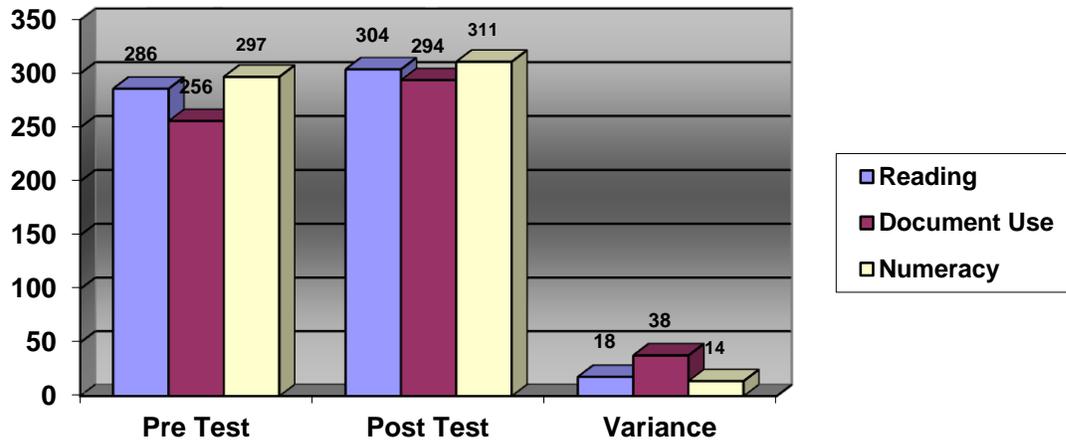
As can be seen in Graph 4, the two learners made gains across all subscales. For example, gains were made in Reading from 286 to 303; in DU from 231 to 261; and in Numeracy from 308 to 322.

Graph 4 Early Childhood Education TOWES Average Score Gains (N = 2)



As can be seen in Graph 5, all three learners made positive gains in the three subscales. On average, learners increased their score in Reading from 286 to 304; in DU from 256 to 294; and in Numeracy from 297 to 311.

Graph 5 - Practical Nursing TOWES Average Score Gains (N = 3)



The APP program was our ideal model of delivery for all the program areas included in the study, as it provided opportunity for both group and individual engagement.

Although not all the learners enrolled in the APP program screened into the study, the course instructors believed that an ES intervention would be beneficial to all their learners. As a result, the APP instructors provided 15 hours of scheduled class time for ES's over a seven week period of time. In addition, the APP instructors allowed learners who were part of the study early release time to attend individual tutoring sessions in ES. Many, but not all of the learners, took advantage of this opportunity.

Flexibility was the key to engaging learners. Individual tutoring time was available to learners from 8 am to 8 pm Monday to Friday. Some learners, because of family commitments, chose to take advantage of the evening tutorial times instead of the early class release time.

The group instruction consisted of weekly workshop sessions focused on learner survival skills such as reading skills, test-



taking strategies, and observation skills. The ES instructor facilitated, coached and mentored learners by designing experiences through which learners could build on prior learning, as well as developing and practicing new skills. *ESonLine* and *Skill Plan* were used as reference materials. Many of the activities were customized for the APP program. For example, *SNAP the Question* exercises were customized and made to fit the Saskatchewan policing scene. Individual tutoring sessions often reinforced material from the group session and provided extra support and encouragement in those skill areas that learners found more challenging.

Informal and formal feedback was solicited from both the group and individual sessions. This feedback provided the framework for the next session. One learner indicated that she liked “the one on one, being able to work on anything I choose and having the option to work individually. I practiced snapping the question and it helped when writing the *RPAT* (RCMP Police Aptitude Test).”

Much of the APP course is geared to applying to the RCMP, the Regina Police Services or Canadian Border Patrol where there are entrance exams (Sigma Test) that each applicant is required to pass. Many of the ES activities were geared to understanding and succeeding in these multiple choice exams. For instance, there is a large component of the Sigma Test that deals with reading comprehension. The Location Strategy figured prominently in these sessions. Learners were keen to engage in these activities because they could see direct relevance to achieving their goals.

Although different in content, the approach to delivering an ES intervention to the other programs (ECE, PN, YCW, Business Certificate Programs, EA, and CE) had many similarities. For example, in the PN program, list theory as related to ES, was discussed in general terms, followed by specific analysis and activities using authentic nursing documents such as the Adult Neurosciences Watch Sheet and the Licensed Practical Nurse renewal form. Customizing ES activities for the different program areas engaged learners, increased motivation to complete the intervention and contributed to increased TOWES post-test scores.

Transition Pathways to Employability

The majority of participants in the SIAST project were on the pathway to employment. Learners in the academic programs had identified a career of interest such as police work, practical nursing or youth care and were working towards acquiring the credentials required to work in their various fields.

The APP, a 28 week program, provides learners information and skill development which allows them to gain employment in various Canadian policing agencies. The ES intervention, introduced at week 20, became a regularly scheduled part of the program. As of May 2012, the majority of APP graduates have either secured employment in policing or security or have been accepted into further training with the Regina Police Service or the RCMP Cadet training.

The PN program is a two-year diploma nursing program that provides the skills and knowledge for learners to secure employment in acute care hospitals, rehabilitation hospitals, medical centres and extended care facilities. The three project participants who wrote the TOWES post-test have completed their first clinical experience and will be returning in the fall for Year 2 of their program.

The ECE program is a 38 week certificate program that provides skill development and practicum experience in the area of early childhood education. The two project participants from this program area are currently completing a practicum and will be seeking employment in their field of study.

The CE learners were not enrolled in an academic program, but rather in a career transition program where they were exploring career and employment options and participating in computer, job search and other skills training. As the goal of the CE program is employment, we can still say that these participants were on the direct pathway to employment. As of May 2012, three of the 11 CE learners were employed, five were participating in a work experience program, two were job searching, and one was waiting to return to school in the fall.

The remaining programs, for a variety of reasons, were unable to complete the entire pilot project.

Personal Reflections

Some of the lessons learned occurred around the following themes:

1. **Timing of ES Orientations** for the stakeholders must occur long before the course begins. Ideally, an in-service for instructors prior to classes starting could provide the needed exposure to ES activities and the necessary time to integrate ES's into the curricula. For learners, it is vital that the integration of

ES occur from day one of the course so as not to appear as an 'add-on'. A text message from a learner in the Youth Care Program captures many of the comments from learners... "As beneficial as it is I just don't think I need another thing to worry about. Thanks for the opportunity though!"

2. **Scheduling of the pre and post TOWES** needs to occur at a stress-free time for learners. In order to have valid outcomes, this testing should not have to compete with course exams and other deadlines.
3. **Scheduling of the ES activities** should be integrated with regular course work. During the research project scheduling of ES activities was problematic. Reinforcement and transfer of learning were not optimal. The ES activities were conducted in isolation from other program activities and the content experts (main instructors) were not trained teachers or ES practitioners. As a result, there was little scheduled opportunity to reinforce the ES strategies.
4. **A team approach** is needed to ensure the seamless integration of ES into course materials. "Parachuting" an ES facilitator in to fix a problem only provides a band-aid solution. Although program areas generally recognized that ES activities could help a number of at risk learners, the instructors attached to the programs were typically not involved in the intervention. A team approach would ensure a seamless integration of ES into the curriculum where learners could quickly appreciate the opportunity to improve skills levels while mastering the required content.
5. **Increased awareness and training in ES for all faculty members** would ensure better integration and reinforcement of ES strategies for all learners. As a result of the project, the Program Head for the Instructional Leadership and Development Center has met with the research team to discuss strategies for incorporating an ES orientation into the Faculty Certificate Program, a requirement for all new SIAST instructors.
6. **Curriculum development funding** to incorporate ES strategies into existing curriculum would provide assurance that important ES skills are routinely addressed in each program area. To that end, the program head for Aboriginal Police Preparation and Youth Care Worker programs has sought

additional provincial funding to provide ES support to learners in the 2012 – 2013 programs. This support would include revisions to curriculum to incorporate ES strategies and additional training in ES for APP and YCW faculty.

The research project has provided an opportunity to examine ES challenges and possible solutions at SIAST. Many of the issues encountered in the project can be addressed in the future by making a commitment to developing a culture of ES at SIAST through increasing awareness, training and engagement in ES.

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