

Fostering a Culture of Scholarship of Teaching and Learning (SoTL) at a Polytechnic Institution

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Abstract:

This paper focuses on how the scholarship of teaching and learning (SoTL) is being integrated into the teaching excellence culture at the Northern Alberta Institute of Technology (NAIT), a premier Canadian polytechnic institution in Alberta, Canada. The Institute's particular culture is discussed along with the emergence of SoTL within NAIT in the context of recent changes in Canadian Higher Education. A number of initiatives to foster SoTL undertaken in the one year of official CASTL affiliate membership are described. In addition, efforts to foster a culture of SoTL at NAIT are discussed in relation to faculty assessment tools and faculty development efforts. The paper closes with an examination of the challenges and opportunities facing the future of SoTL at NAIT.

Key Words:

Technical and trades education; scholarship of teaching and learning; teaching excellence; scholarly activity.

Introduction

When Boyer (1990) introduced the term “Scholarship of Teaching,” he used it to describe scholars’ responsibility not only to study their own specific discipline but also to extend their scholarship to include their own teaching practice. Scholarship of Teaching and Learning (SoTL) has since become a movement in higher education that gained momentum not only at universities but also at colleges. Under the umbrella of SoTL, college faculty are encouraged to engage in classroom research (e.g., Cross & Harris Steadman, 1996) and faculty inquiry (e.g., Huber, 2008) that extends beyond the scope of traditional conceptions of research. In many cases, SoTL activities by faculty are also starting to be considered an additional component of tenure and promotion considerations. This paper focuses on how SoTL is being integrated into the teaching excellence culture at a Canadian polytechnic institution: the Northern Alberta Institute of Technology (NAIT). As the concept of a Polytechnic institution is rather unique in North-America, we will first briefly describe NAIT’s mandate and some of its characteristics. In the second section, we situate the emergence of SoTL within NAIT in the context of recent changes in Canadian Higher Education. We then document the history of SoTL at NAIT and how NAIT became a CASTL affiliate member in October 2008. Our efforts to foster SoTL at NAIT are described, finishing with a discussion of the challenges and opportunities we face and the future of SoTL at our institution.

NAIT: A Canadian Polytechnic

Much like two-year colleges in the USA, Canadian colleges primarily offer two- or three-year diplomas, some of which feed into undergraduate degrees. In the Province of Alberta, polytechnic institutions recently received permission to offer degree programs in addition to their diploma and three-year applied (or associate) degree programs (Alberta, 2007). The focus of education in a Polytechnic is on the practical application of knowledge and the acquisition of job-specific skills through hands-on practice. Curriculum and program development traditionally start with a graduate profile which is based on job-specific competencies and exit skills. The curriculum for the denturist program is, for instance, created in close collaboration with experienced denturists around the knowledge and skills they would like recent graduates to have once they enter the workplace.

As a Canadian Polytechnic in Edmonton, Alberta, NAIT’s programming is tightly linked to industry and business demands as a key economic instrument in addressing the province’s workforce needs. Its mandate, amongst others, states: “With its strong focus on serving the needs of business and industry, NAIT is a key contributor to the province’s economic well-being” (Alberta, 2005). NAIT prides itself on being among one of the largest technical institutes in Canada and the third largest post-secondary institute in Alberta, preparing students for jobs in trades with large apprenticeship programs such as plumbing, welding, millwright, electrician, and automotive service technician. Annually, approximately 15,000 students are enrolled in apprenticeship training programs—making NAIT one of the largest apprenticeship trainers in the country. Full-time education at NAIT includes programs in Health Sciences; Business; Resources and Environmental Management; Applied Business Science; Electronics and Engineering Technology; Hospitality and Culinary Arts; Applied Media and Information

Technology; Arts, Science, and Communications; and Mechanical and Manufacturing Technology. Approximately 8,000 students are enrolled in full-time programs and approximately 24,000 students per year enrol in continuing education credit courses or programs. The Institute's overall customer base, including students enrolled in non-credit programs, is over 84,400 per year. NAIT has 1200 full-time teaching faculty.

As a context for SoTL, NAIT, as a polytechnic, differs from research universities. Although all faculty at NAIT have a high level of industry experience and expertise, a large number have little or no research experience and are not eligible for the more typical university-based research grant programs from national research councils. Although research activities, historically, have not been part of faculty workloads, the Institute is building capacity for research that is generally applied in nature and is industry-driven. Examples of applied research involve commercialization of innovative technology to analyze the chemical compounds in various media, as well as new applications of green roof technology. Faculty are strongly encouraged to collaborate with local industry in their applied research projects. On the one hand, faculty's unique perspectives provide incredible opportunities for SoTL work in the area of trades and technology education, including situations where students are involved in applied research projects. At the same time, SoTL activities at NAIT are not likely to result in peer-reviewed publications because many faculty lack the training to engage in scholarly research. Because of its different context, the SoTL model at research universities, with its pressure to publish SoTL work in peer-reviewed journal articles, does not exist at NAIT. This article elaborates on the resulting tensions, challenges, and opportunities for SoTL at NAIT.

Degrees and scholarly activity at Canadian colleges and polytechnics

The landscape of Higher Education in Canada is changing rapidly (Dennison & Schuetze, 2004). Examples of changes in the past four years include the fact that an increasing number of colleges in Canada have recently obtained university status, and some polytechnical institutions, like NAIT, are now allowed to offer degree programs. A recent article by Marshall (2008) highlights a number of controversies around degrees delivered at institutions other than the traditional, publicly-funded research universities. Along with the substance of the degree, there historically has been the assumption of a link between the assurance of the quality of a degree and the institutional "university-level" environment (Dennison, 2006; Marshall, 2008). In Canada, procedures and standards for assessing applications to become degree-granting Institutions include, but are not limited to, the criteria that policies and practices be in place "with respect to research and/or scholarship" (CMEC, 2007). In addition, the introduction of research and scholarly activity is also mandated by some provincial governments (Marshall, 2008). In Alberta, for instance, the Ministry of Advanced Education and Technology created a new Roles and Mandates Framework for post-secondary education which mandates applied research and scholarly activities at Community Colleges as well as its two Polytechnical Institutions (Alberta, 2007). Alberta's classification model of post-secondary institutions states: "Polytechnical institutions engage in applied research and scholarly activity to enhance the instructional mandate of the institution. These institutions focus on learners interested in career and technical programming." (Alberta, 2009). Scholarly activities at a polytechnic institution, therefore, are to enhance the

instructional mandate. NAIT has embraced SoTL, as well as industry-relevant applied research to enhance its academic excellence. In the remainder of this paper, we elaborate on how SoTL is taken up at NAIT and how faculty's unique perspectives can help advance this field.

SoTL at NAIT

Teaching excellence at NAIT

The introduction of SoTL at NAIT should be understood in the context of NAIT's history of fostering teaching excellence. NAIT has supported a long history of teaching excellence for new and existing faculty through a number of programs and initiatives including the *Becoming a Master Instructor* program for new instructors, an annual *Teaching Success Symposium* open for participation by all faculty, and the institution's *Instructional Excellence Awards*, whereby faculty are recognized by their students for their teaching excellence.

Becoming a Master Instructor

NAIT offers a two-week, full-time course called "Becoming a Master Instructor" (BMI). The course intends to introduce faculty to foundational teaching competencies and covers topics such as principles of adult learning, classroom management, lesson planning, duty to accommodate, creating course outlines, and diversity in the classroom. All new faculty are required to take the course within their first year of tenure. During the course, the new faculty have the chance to get to know instructors from other disciplines, as well as to acquaint themselves with pedagogically sound evidence-based practices.

Teaching Success Symposium

Each year in May, NAIT offers in-service workshops for all staff. The biggest event for faculty in this month is NAIT's Teaching Success Symposium. The one-day symposium starts with a keynote address, followed by four or five slots of concurrent 45-minute sessions, in which faculty present best practices from their own teaching experience along with an accompanying poster session. This symposium attracts 120 faculty on average each year.

Instructional Excellence Awards

NAIT's Instructional Excellence Award provides formal recognition of instructors who demonstrate excellence in teaching within the NAIT community. Criteria that students must address in nominating an instructor include, amongst others: responsiveness to the individual learning needs of students in and out of class and promotion of a positive and quality learning environment. The nomination also includes peer evaluations regarding collegiality, professionalism, reliability, and openness to new challenges. The nominated instructor must also provide supporting documentation. Each year, one instructor per academic school receives the instructional excellence award.

In addition to the introductory BMI course and the Teaching Success Symposium, NAIT's Department for Teaching and Academic Development, formerly called the Centre for Teaching and Learning, assists in fostering teaching excellence by providing teaching and learning workshops, training in the use of educational technology,

individual instructor support, and assisting schools and programs in program planning and development.

Faculty Feedback and Evaluation

To assist faculty in their ongoing development, NAIT has, in former years, also invested in an institute-wide approach to faculty feedback and evaluation. One of the opportunities included customizable surveys to be filled out by the students. The surveys were then collected by students and shipped to the Information Services Department. A few weeks later, faculty members received a confidential report with the compiled responses of their students. Another opportunity included mandatory surveys filled out by the students, the results of which were aggregated and shared with the dean of the school. During the review of this faculty feedback and evaluation system, a need for the support of scholarship of teaching and learning was recognized.

The formalization of support for SoTL at NAIT

In the fall of 2007, a Faculty Assessment and Evaluation Task Force was formed to review the existing student feedback system and supporting processes. The task force sought input from both students and faculty about the existing feedback system. One of the concerns mentioned by both faculty and students was that, at times, the feedback would come to the faculty member too late in the term with the result being that the faculty member was not able to address the feedback in time. The Task Force discussed that obtaining feedback once per semester would not be enough for faculty to properly address students' learning needs. It was recognized that feedback should be sought on an ongoing basis and that there was a need for support of ongoing faculty inquiry into student learning.

With this in mind, the FAE Task Force made the key recommendation that a standing committee of NAIT's Academic Management Team be created to provide leadership in building a framework to begin the process of introducing "The Scholarship of Teaching and Learning" to NAIT, and provide ongoing support to those faculty members who embrace this approach to improving teaching practice.

Based on this recommendation, the SoTL committee was created, co-chaired by the second and third author of this paper. Wide participation on the SoTL committee was sought and obtained from a variety of stakeholders including an Associate VP, an additional dean, representatives from the faculty association and academic schools, and faculty from the Department of Teaching and Academic Development. The terms of reference of the committee included the following purpose statement: "to foster a supportive environment that will help nurture and build a culture that embraces and values scholarship as it relates to the improvement of teaching practice and student learning experience at NAIT" (NAIT, 2009). In due time, the committee had an initial work plan and provided input into the Institute's Scholarly Activity Policy and Guidelines with respect to SoTL activities. In the fall of 2008, the first author joined the committee, being tasked to help the committee coordinate, execute, and revise its work plan and activities.

CASTL affiliate membership October 2008 and NAIT-wide launch of SoTL

In October 2008, a delegation of NAIT's SoTL Committee attended the conference of the International Society of the Scholarship of Teaching and Learning, which was held locally in the City of Edmonton, Alberta. This is where we first came into contact with the CASTL Affiliate members, and we joined the program that very month. During the first meeting at the ISSOTL 2008 conference, we learned about initiatives organized at other institutions which inspired our own SoTL initiatives at NAIT and, following this meeting, we started the organization of several SoTL initiatives. The first event was the SoTL awareness week scheduled in the same week as NAIT's Teaching Success Symposium in May 2009. As part of the awareness activities, SoTL committee members presented the idea of a Scholarship of Teaching and Learning, and how this supports teaching excellence to NAIT's Dean's Discussion Group in an effort to encourage participation by faculty in their respective academic schools. At the start of NAIT's Teaching Success Symposium, we launched the SoTL website www.nait.ca/sotl and, during lunch, a poster fair was organized reporting on the Master's theses of faculty who had just recently obtained degrees in Education. In the subsequent SoTL Awareness week, these activities were augmented by the organization of workshops for faculty. Finally, we initiated NAIT's SoTL Grant Program, which allows a minimum of two grant winners per year release time to dedicate up to 50% of their annual workload to SoTL activities.

The introduction of SoTL at NAIT coincided with plans to redevelop NAIT's faculty introductory BMI course by the Department of Teaching and Academic Development. The redevelopment was inspired by feedback from new faculty members and from schools, which indicated that certain topics, such as leadership, were less necessary for beginning teachers, while other more "just-in-time" topics such as classroom management and presentation skills needed more emphasis. It was decided that the redeveloped version of BMI was to include a module on planning for career long professional development, encourage faculty to form communities of learners, as well as a module on Scholarly Teaching, as a step towards SoTL. In addition, the redeveloped course would be augmented with a few days of additional training after a year.

The new academic year 2009-2010: sustaining and enriching SoTL initiatives

Three issues characterized the work of the SoTL committee in the fall of 2009: coordinating and streamlining the SoTL Grant Program, reflection on the CASTL colloquium and ISSOTL, and fostering faculty inquiry.

The SoTL Grant program

In the first round of the SoTL Grant program in the spring of 2009, two faculty members received a SoTL Grant. A faculty member from the Biological Sciences Technology program in the School of Resources and Environmental Management received money to present her M.Ed. thesis at a national and an international conference. The thesis focuses on the experience of highly educated immigrant women, whose credentials are not recognized by Canadian accrediting bodies and who enrol in high-school upgrading as a way to enter the Canadian labour-market.

In addition, a faculty member from the School of Applied Media and IT received four month's full-time release from teaching duties to conduct a study on education for sustainability at NAIT. The main goal of the project was to determine to what extent sustainability is already being taught at NAIT, as well as faculty's attitude towards education for sustainability. This work also aligns with one of the objectives in NAIT's business and academic plan: *to demonstrate leadership in economic, environmental and social responsibility*.

An important aspect of the SoTL Grant is that the Grant winner is required to share the outcomes of the SoTL project in multiple ways, to allow the project to have a direct impact on teaching practices. The SoTL Grant winners will therefore present their findings at NAIT's Teaching Success Symposium in May 2010. In addition, the second SoTL Grant winner will organize a two-day workshop for interested faculty on how to integrate sustainability concepts into existing curriculum.

In the second round of the SoTL grant program, in the fall of 2009, a Business Communications faculty member received 40% release time for a period of two terms. The project is aimed at evaluating the learning potential of peer assessment in communications education, with particular regard to writing and editing skills. As part of the project, this faculty member will try out and evaluate a software tool that allows students to edit and assess each other's work. The findings of the study will be shared with communications instructors at NAIT as well as being presented at a regional conference.

CASTL Colloquium and ISSOTL conference 2009

In October 2009, the first author and one of NAIT's faculty members from the Electrical Apprenticeship Program attended CASTL's final colloquium and the ISSOTL conference in Bloomington, Indiana. In our discussions with attending scholars, the question remained: Is SoTL a means to an end, or is it an end in itself? According to Richlin (2001), research and inquiry into teaching and learning feeding back into classroom teaching can be called *scholarly teaching*. Research and inquiry resulting in a scholarly peer-reviewed publication is called *scholarship of teaching*. The question of whether research and inquiry lead to a publication is highly relevant at universities where peer-reviewed publications play a crucial part in tenure and promotion decisions. The more recent recognition of SoTL publications at universities shows that universities value teaching. However, during the ISSOTL conference, we sensed that, for some scholars, the publications are the most important part of SoTL and are the culmination and end point of a SoTL project. For NAIT, the most important criterion for SoTL activities is faculty's contribution to excellence in teaching and student learning. While NAIT does not currently require faculty to publish, the tendency exists to adopt the university way of measuring scholarship. However, before evaluating the university way as a possible standard, we need to consider what constitutes quality in the scholarship of teaching and learning at NAIT and how such quality can best be ensured and recorded.

Fostering Faculty Inquiry

In the fall of 2009, the SoTL committee had lengthy discussions about exactly what SoTL means in the context of NAIT. In our discussions, a number of questions arose:

- How does Scholarship of Teaching and Learning relate to educational research?
- Are SoTL activities necessarily carried out by the researcher as practitioner?
- Are reflective dialogue and faculty inquiry to be considered SoTL activities?

While our discussions were inspiring, we realized that it would be more ideal for our faculty members to participate in such discussions. For this reason, a SoTL discussion group was formed in December 2009 which primarily consists of faculty members and faculty developers who are interested in exploring issues of teaching and learning together. The group has met monthly, and the first meetings have focussed on discussing conceptions of learning, as well as interviewing students about their conceptions of learning. Between meetings, the conversation continues in an online discussion forum, which is set up for SoTL discussion group members.

A second initiative involves department chairs. As a result of a workshop for department chairs on fostering a culture conducive to instructor learning in the workplace, a learning community of department chairs has formed. In this learning community, department chairs exchange experiences and strategies on how to engage faculty in decision-making and how to stimulate collaboration and ongoing professional development among instructors.

Discussion: looking back and looking forward

In the past two years, the work of the SoTL committee has made huge advances. This has been largely due to the great support of NAIT's senior leadership, in particular the Associate Vice President of Academic Affairs, who provided funding for the SoTL Grant Program through the Academic Development Fund and also provided funding for the coordination and support of SoTL initiatives at NAIT. This financial support communicates to NAIT faculty that senior leadership continues to be serious about SoTL and NAIT's teaching excellence. Currently, we can identify a number of advantages, positive trends, and challenges that will affect how and to what extent SoTL will be integrated in NAIT's culture and organization.

Some of the challenges ahead of us include current government cuts in post-secondary education under an economic recession. The resulting decrease in budgets threatens to increase faculty's workloads, which will allow less time for SoTL activities. Another issue we are still struggling with is how to document faculty members' SoTL activities. Realistically, peer-reviewed publications are not and cannot be required from faculty who may lack the technical training to engage in scholarly research and are not currently granted time to engage in scholarly activity as part of their regular workload.

However, a number of positive trends and developments have emerged in the past year.

Introduction to Scholarly Teaching and SoTL

Through the changes made to the introductory *Becoming a Master Instructor* course, faculty are encouraged from the start to be scholarly about their teaching and to consult literature on education in their trade or discipline. In addition to consulting the literature, the Scholarship of Teaching and Learning at NAIT involves sharing the findings from systematic inquiry, mostly within the institution, but also at regional conferences. As

such, the model of SoTL at NAIT is not about SoTL work as peer-reviewed published work but involves systematic inquiry that is disseminated to improve instruction within faculty's own teaching practice and possibly within wider institutional practices. SoTL is conceptualized as a spiral process where the findings of systematic inquiry are shared with colleagues and, at the same time, feed back into faculty's own teaching practices.

Faculty workload

One of the great advantages of advancing SoTL at NAIT, compared with most universities, is that teaching and student learning is and has always been the most important activity in the organization. In the current workload of NAIT faculty, teaching does not compete with disciplinary-specific research; however, on the other hand, teaching loads can be quite high for faculty, who experience class contact periods ranging from 16 to 35 hours per week. Faculty often mention that the demands of day-to-day teaching do not allow much time for reflection, let alone systematic inquiry. While the current faculty workload model does not include time to engage in scholarly activity, one promising development is that this workload model is currently being revised to become more flexible by allowing more time for scholarly research and other activities. This development will be augmented by the Institution's move to a 15-week semester/three-credit course model for its diploma and degree programs within the next three to five years, requiring less faculty time on classroom-focused activities.

Faculty assessment and professional development

As mentioned in Section 2.2, some faculty assessment efforts have been aimed at identifying instructors who might benefit from additional support and professional development opportunities. Cross & Steadman (1996) contend that:

“A major hurdle for any faculty development program to overcome is the faculty perception that there is something wrong with the teaching of those who participate in faculty development – or worse yet in some cases, that an interest in improving teaching may mean that the faculty member is on the slow track in teaching” (p.19).

The focus on faculty assessment, to identify those in need of support, may have unintentionally reinforced the false perception of some faculty members that faculty development efforts are remedial. A positive trend experienced by the first author is that the SoTL activities, as an additional alternative, attract those faculty members who are interested in ongoing inquiry: often very experienced educators and even administrators. Within NAIT's culture, the umbrella of Scholarship of Teaching and Learning legitimizes ongoing inquiry and reflection as a natural part of the work of teaching professionals and practitioners.

Currently, NAIT's faculty development and performance assessment model is being thoroughly revised. Recently, a new flexible model was proposed which would include assessment on a more holistic view of the faculty member as a teaching professional. Areas of assessment, where applicable, include teaching, scholarship, administrative duties, and community service. The new model proposes assessment on performance to come from at least three different sources including supervisors, peers, and students, and with the option of faculty selecting from a range of assessment tools. Along with the

new work load model, this new assessment model and the ongoing collaborative work of NAIT's SoTL committee and Department of Teaching and Academic Development will hopefully support a more holistic and developmental approach to the job of a teaching professional.

If we were to look into the future, we would see NAIT enjoying an even more engaged faculty who view themselves as teaching professionals, where teaching inquiry and reflection are part of faculty members' daily work and are seen as strengths to celebrate, and where evidence of teaching excellence leading to student success is shared externally as well as internally.

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References

- Alberta (2007). Roles and Mandates Policy Framework for Alberta's Publicly Funded Advanced Education System. Edmonton, AB: Ministry of Advanced Education and Technology.
- Alberta (2005). Northern Alberta Institute of Technology, Mandate. Retrieved: May 31, 2009 from <http://aet.alberta.ca/media/164040/nait.pdf>.
- Alberta (2009). *Six Sector Model for Classification of Alberta's Post-Secondary Institutions*. Retrieved: May 31, 2009 from <http://www.advancededandtech.alberta.ca/postsecondary/institutions/public.aspx>.
- Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professorate*. San Francisco: Jossey-Bass.
- CMEC: Council of Ministers of Education, Canada (2007). *Ministerial Statement on Quality Assurance of Degree Education in Canada*. Retrieved, September 22, 2009 from <http://www.cmec.ca/Publications/Lists/Publications/Attachments/95/QA-Statement-2007.en.pdf>
- Cross, K. P., and Steadman, M. H. (1996). *Classroom research: Implementing the scholarship of teaching*. San Francisco, CA: Jossey-Bass.
- Dennison, J.D. (2006). From community college to University: A personal commentary on the evolution of an institution. *Canadian Journal of Higher Education*, 36, 107-124.
- Dennison, J.D., & Schuetze, H.G. (2004). Extending access, choice, and the reign of the market: Higher education reforms in British Columbia, 1989-2004. *Canadian Journal of Higher Education*, 34, 13-38.
- Huber, M. T. (2008). The Promise of Faculty Inquiry for Teaching and Learning Basic Skills. *A Report from the Carnegie Foundation for the Advancement of Teaching; Strengthening pre-collegiate education in community colleges*.

- Marshall, D. (2008). Differentiation by degrees: System design and the changing undergraduate environment in Canada. *Canadian Journal of Higher Education*, 48, 1-20.
- NAIT (2008). Faculty Assessment and Instructional Dialogue: Improving our Instructional Assessment Tools. Internal report by NAIT's Faculty Assessment and Evaluation Task Force, February 8, 2008.
- NAIT (2009). Terms of Reference of the Scholarship of Teaching and Learning Committee. Internal Document, NAIT.
- Richlin, L. (2001). Scholarly teaching and the scholarship of teaching, *New Directions for Teaching and Learning*, 86, 57-68.