

Applied Degrees in Canadian Colleges

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APPLIED DEGREES

Bridging the last and new millennia, an issue which Canadian colleges have been debating is the changing roles of post secondary institutions. The Pan-Canadian Education Indicators Program (PCEIP) 1999, indicates that Canada, in 1995, had the highest postsecondary rate of the OECD (Organisation for Economic Co-operation and Development) countries at 48% vs. the mean of 23%. University graduation rates faired among the top countries but Canada's college graduation rates were the highest (p.5). This respected international standing will not be easy to maintain. In this global context, colleges are exploring whether to seek approval to become degree-granting institutions. The myriad of factors involved in such discussion run from the impact on stakeholders, to redefining the role of colleges, to whether community colleges should evolve into polytechnics or university colleges (Auld, 2002), to speak nothing of articulation and certification dilemmas. This is a topic of considerable scope. To generate a focal point for an initial discussion, this paper will consider applied degrees and the benefits and challenges these would present stakeholders. It is predicted that the benefits, on the whole, will outweigh and accommodate for the disadvantages.

What are applied degrees?

Degrees, generally, are awarded by universities upon the completion of a program of 4 or 5 years (Brown, 1999). Applied degrees are characterized by directly linking learning to the world of work and career preparation and, consequently, traditionally have not been delivered by universities. This new credential focuses on advanced study (beyond a 2-3 year certificate or diploma) in technical, vocational and career fields. There is considerable variation of what constitutes an applied degree. Generally, applied degrees are 4-year college programs (usually 8 semesters) with one-quarter of that time devoted to field placement. Auld (2002) identifies field placement as the "...application of knowledge to the world of work, real work challenges ..." (p.4). Consequently, a

direct conduit to employment, programs are job related rather than for pursuit of a broader general education. Content is competence and/or performance outcome based within a theoretical framework. Faculty are skilled practitioners in the field of study and often have trained as teachers and facilitators of learning (an employment requirement of college faculty in Manitoba).

The impetus for applied degrees is market driven. The purpose is to meet specific current and future workforce needs. Applied degree programs must meet standards dictated by provincial, industry approval and/or accreditation bodies. These degrees are logical extensions of specific college diploma programs or of “new” practical fields and thereby, not in competition with university programs. Another significant characteristic (Auld, 2002) is that the employers/industries are involved in program development and defining of outcomes.

Why applied degrees?

While adapting their mission to meet the labour needs for a global economy, colleges have actively been pursuing continued career pathing for their graduates. Many comprehensive community colleges articulate their diploma programs with universities to support student access to a more seamless and flexible avenue toward life long learning. Typically, this articulation to undergraduate degrees has taken the form of formalized “2 + 2” joint diploma/degree programs, or direct block transfer into a related baccalaureate program. (North Central Association of Colleges and Schools, 2001, p.2). Increasingly common, in western Canada, is the provision of an associate degree (in general arts and/or sciences), which provides 2 years of post-secondary education that is directly linked to an articulated 4 year university degree (ACCC, 2002). It is clear that colleges have moved from “...terminal education to transfer education.” (Townsend, 2001, p.1)

The challenge has been that many diploma programs do not readily transfer for credit to university degree programs because of the focus on highly specialized knowledge and skill and workforce

demand; there is frequently no university equivalent. At the same time, universities rarely provide timely advanced career preparation, especially in the paraprofessional fields: this is a major strength of the colleges' response to community needs. (NCACS, 2001). Auld (2002) makes the distinction "...between the study of knowledge and the study of knowledge for work" (p.3). The former is the auspices of universities. It stands to reason, then, that the latter is the pervue of colleges. Consequently, there is an academic and training gap for diploma and reverse transfer students in their efforts to obtain advanced work related skill development. Yet, it is apparent that degrees are increasingly the avenue to well paying jobs, if not entry level, in many areas of the workforce. Walker (2001) claims that associate degrees (2-3 year programs) simply are no longer competitive with 4-year degrees in the marketplace. However, the advantage to a college applied degree is that students can exit at the diploma level or continue to the completion of the degree.

In *Knowledge Matters: Skills and Learning for Canadians* (2002), Human Resource Development Canada identifies three imperatives driving a discussion of post-secondary education:

1. The need for a skilled and increasingly educated workforce to meet the demands of the knowledgebase economy. "By 2004, more than 70 percent of all new jobs created in Canada will require some form of post-secondary education and only 6 percent of new jobs will be held by those who have not finished high school" (p.2).
2. The demographics of pending labour short fall: Data shows 56% of low skilled people have jobs vs. 79% of high skilled and insufficient youth to replace an aging working population. (p.2)
3. The learning system must be strengthened. We have the highest post-secondary participation in the world but "...Canada's education advantage is diminishing as other countries raise their college and university participation rates... So we must invest in renewing and upgrading skills" (p.2) To that end, one point of discussion the federal level is raising is the increased role of

colleges "...to ensure Canada's current and emerging workforce is more highly skilled and adaptable." For example, the federal government recommends that adult learners increase by 1 million in the next 5 years and that within the same time frame, business sectors increase their training spending by one-third (p.6).

The Association of Universities and Colleges of Canada (AUCC) recently released *Trends in Higher Education* (Oct.15, 2002), specific to the university sector, that indicates Canada has significantly underestimated the projections of young adult populations. By 2011, universities are projected to face up to 200,000 additional students. That is a 20-30% enrollment increase (2002a, p.1). Further, a faculty crisis is looming. It is predicted that 40,000 new faculty will be required at universities: 20,000 for replacements due to retirement and attrition and another 20,000 to accommodate the underestimated increase in student population (AUCC, 2002b p. 3). It is interesting that 85% of full time students are in undergraduate programs (AUCC, 2002b p.2). The question arises, how can this "echo" of 18-24 year olds from the baby boom generation be accommodated in post secondary programs? College applied degrees is a legitimate alternative.

There are practical reasons for the pursuit of an applied degree. Higher wages are dependent upon degree achievement (Brown, 1999; Carnevale & Desrochers, 2001). The PCEIP (1999) reports that with every additional level of higher education, employment increases with progressively higher earnings, while unemployment and rates of involuntary part-time jobs decrease (p.6). Also, "...college graduates experienced higher rates of full-time employment two years after graduation than either trade-vocational or university graduates"(p.7). This is significant because colleges serve a greater representation of disadvantaged and non-traditional students than universities and these populations tend to succeed at college (Walker, 2001 p.4). This is particularly salient in Manitoba,

which has proportionally the largest aboriginal population in Canada. A college degree may be a more comfortable and successful pursuit.

How common are applied degrees?

Historically, applied degrees originated in Europe and now are commonly found in the U.K., U.S., Australia, New Zealand (Auld, 2002; Derks, 2000). In Canada, interest in applied degrees was predominantly a western phenomenon. The Alberta Department of Advanced Education and Career Development approved, in 1994, the first college pilots of applied degrees (Walker, 2001). By 1998, there were 19 distinct applied degrees (Derks, 2000). In 1995, British Columbia legislated university colleges and specialized institutes to grant bachelor degrees although colleges awarded associate degrees in arts and sciences (Derks, 2000). The Ontario government followed. In 2000, legislation allowed the Ministry of Training, Colleges and Universities to broaden college degree options given that these not impede areas of traditional study at universities (Walker, 2001). Twelve pilot applied degrees were approved in the spring of 2002 (College Student Alliance, 2002).

The evolution of colleges' movement into degree granting in Canada is predicated on provincial will to either create legislation allowing colleges such authority and/or granting the ministries of advanced education the authority to designate such approval. Whether through legislation or ministerial authority, a body is appointed to oversee a process by which postsecondary institutions may apply for approval to grant applied degrees. Although the process will vary within each province, indicators such as marketplace demand and quality indicators will serve as the criteria for the rationale, development and approval of applied degrees. There is growing interest in colleges granting degrees, such that the Community College Baccalaureate Association was founded in 1999 in the U.S. including members from 5 Canadian provinces (Walker, 2001 p.5).

Should applied degrees be pursued?

This can be a hotly debated discussion. The primary step would be to consider the advantages, disadvantages and challenges that would arise with the delivery of applied degrees by colleges. Following is a summary of the pros and cons from the perspective of the key stakeholders.

Students

Benefits: Applied degrees granted by colleges create many advantages and benefits for students.

- Some students do not want to transfer to a University. They want to earn their degree at their college in the “comfort zone” of their familiar institution.
- Colleges are more learner-centred than universities (Walker, 2001).
- Tuition fees for undergraduate programs have more than doubled in the last 15 years. College tuition remains lower than university tuition in most programs (PCEIP, 1999 p.4)
- Applied degree programs in many cases are flexible allowing working students to finish their degrees part time. Online, distance, and evening courses are all options for students.
- Students can be given credit based on past experience: PLA
- The student: instructor ratios at colleges are much lower than in universities.
- These are applied degrees meaning “hands on and practical”, whereas, most university courses are theoretical in nature. For many university graduates there may still be a major learning curve once they are employed. However, college applied degree graduates can hit the ground running with little or no new learning needed on the job.
- A degree may not be an option at universities in some specific fields. This would allow the students to obtain a degree in advanced study.

- More jobs need degrees. “Many companies are establishing the “degree” as the entry-level credential required for hiring – e.g. IBM Canada, DaimlerChrysler Canada; the U.S. green card often requires a degree” (Watson, 2000 p.2). Granting degrees would address this issue.
- Many college graduates gain employment at the entry or middle income but can not move up to the higher levels. “In the global economy, the baccalaureate degree is necessary for entry into many well-paying jobs of business and industry”(Watson, 2000,p. 2). An applied degree would give graduates the opportunity to move into the higher paying jobs.
- Articulation with universities is a huge barrier. Some do not recognize college courses so moving on to a degree is impossible or students may have to start over. The “glass ceiling” will be removed when colleges grant applied degrees (Therault, 2001).

Concerns: From a student perspective, there, also, are concerns.

- There may be the perception that diplomas and certifications are worth less or are second class, if colleges grant degrees.
- Colleges may shift their priorities to the degree programs with some serious consequences. For example, the more qualified and better instructors teach only in the degree programs.
- There may still be a glass ceiling. Applied degree graduates may not be able to move on to a graduate program. Many universities do not recognize applied degrees. Additional courses/education may be required prior to admission into a graduate program.
- Colleges are already stretched adding more programs will make it worse: bigger classes, less lab time. Resources could be drained from existing programs to supplement applied degrees.

Colleges

Benefits: There are many benefits and reasons why colleges should grant applied degrees.

- Growth, responsiveness and adaptability define colleges. Today's job market requires employees with degrees. Granting degrees would address this issue, serving industry needs.
- The obligation to students beyond 2 years rather than abandon them. "By offering baccalaureate degrees, community colleges will no longer be forced into the undesirable position of stamping the education they offer their students with an incomplete" (Walker, 2001 p. 9).
- Increase the revenue for the college. Why pass on students to universities when colleges can keep them for two more years? Colleges can do the same for less; the cost per student is much less than in university. "Community colleges are capable of developing innovative ways to help ordinary people become stars, while solving the crisis of rising demand, limited access and increasing costs" (Walker, 2001 p.3).
- Applied degrees can create new college initiatives and new sources of government funding.
- Applied degrees would create new educational opportunities for faculty enhancing the human resource development within the college.
- Granting degrees would enhance the reputation and stature of colleges.

Concerns: Colleges have concerns that must be addressed if they plan on granting degrees.

- A question may arise whether college certificates and diplomas will continue to be valued.
- Universities may consider applied degrees terminal for graduate program admission.
- There is an added cost; funding sources will need to be identified for new programs.
- Finding qualified people to teach in applied degree programs may present a challenge.
- There are human resource costs to program development, upgrading faculty, as well as obtaining and retaining Masters and Ph.D. faculty.

- Debate about whether “general” education should be included as well as advanced skills.
- Colleges are already stretched, adding more programs will make it worse; bigger classes, less lab time for example. Resources could be drained from existing programs.
- Post-secondary “turf wars” arise as a concern. Are colleges encroaching on universities' territory? Should degree granting be left up to the universities?

Universities

Traditionally, only universities have been allowed to grant degrees. Consideration of this stakeholder is presented from the “college” perspective.

Benefits: There are a number of potential advantages.

- Competition would increase. Universities and colleges will need quality programs to attract students. Competition can bring out the best: a form of consumer based quality assurance.
- University faculty are less “teaching and learning” oriented; faculty spend only 1/3 time on teaching duties (AUCC, 2002b p.2).
- College programs are more cost efficient (PCEIP, 1999; Walker, 2001).
- Universities may fear that if they do not grant transfer credits, colleges will create their own competing degree programs.
- Universities recognize college programs rather than think of them as the second choice for students. Articulation agreements should be easier to set up.

Concerns:

- Universities may not grant equivalent, but only partial credits, requiring university courses for on-going education (e.g. 4 yr. applied degree credited only 2-3 yrs equivalency in a university degree of the same discipline; or post degree diplomas and certificates, pre-masters, etc.).

- Universities have begun granting applied degrees (NCACS, 2001).
- Competing funding dollars; governments/approval bodies ensure no overlap or duplication.

Government

Benefits: There are many advantages or benefits of applied degrees to the government.

- Applied degree programs are aimed at alleviating skill shortages in specific sectors of the labour market. (Therriault, 2001)
- Both governments and industry communities consider applied degrees favourably because selected voids in the workforce are being addressed through new educational opportunities.
- Applied degrees provide more opportunity to advance in a selected field. The lives of students will improve through more education and job opportunities. Therefore, enhancing the chances of people having a better social-economic state.
- College instructors have higher contact teaching than university professors do. Governments get more for their money when college instructors teach degree programs. University faculty generally have fewer contact hours at substantially greater salary with the added cost of support staff. This accounts in large part for the greater cost of university.
- College degrees give many students the opportunity to complete advanced post-secondary education without relocating. Due to the nature of a college student population, many students cannot relocate because of family and job commitments, or financial constraints. (Derks, 2000)
- There is a minimal cost to tax payers because approved programs are built on existing /related diploma programs; the first two years of study are already in place. In addition, the employer and student bear the majority of on-going program costs through the work experience component (Government of Alberta, 2002).

Concerns: There are disadvantages of applied degrees for government.

- Applied degrees may lead other colleges to request degree programs, thus leading to additional issues around the approval mechanism. Such issues are: overall system coordination, duplication of programming, impact on diploma programs, transferability and mobility of the credential, additional costs, market demand, recognition of the credential, assurance of quality, and accountability for the use of public funds (Derks, 2000 p.3).

Employers/Community

Benefits: Community stakeholders, including employers and industry in general, glean numerous advantages from college delivery of applied degrees.

- Applied degrees provide increased advanced knowledge specific fields leading to increased workforce competency. Employers are requesting higher education as competition in the knowledge economy increases. Therefore, they often require a degree for entry-level positions.
- Applied degrees link the advanced education with employer mentoring by providing a work placement. This enhances the workforce competency both for employees and for students, who gain specific job experience in their future field.
- Many companies are demanding a degree as an entry-level credential required for hiring, because of the cognitive and behavioural skills that are attained from graduating with a degree (Carnevale & Desrochers, 2001). Employers such as: IBM Canada, DaimlerChrysler and American green cards often requires a degree (Walker, 2001).
- An applied degree may demonstrate to the employer the commitment the student has to a career choice. With such a commitment, the employer is willing to provide a work placement for students, which often leads to permanent employment.

- Leading - edge advanced knowledge within applied degrees provides new educational information and opportunities to the local employers and community.

Concerns: There are some disadvantages of applied degrees to the employer/community.

- Applied degrees as an entry level to specific field of knowledge may lead some to sense that diplomas and certificates will not be good enough.
- The employer must raise salaries because of the increase in education and the required new/advanced skills. The glass ceiling for salary and advancement in many fields for college graduates is not as restricted for those with applied degrees.
- The cost to the employer for the work experience component of the applied degree.
- Employees with applied degrees will be marketable and consequently, may be more transient.

Conclusion

The evolution of the global market place and focus on knowledgebased economies has influenced the debate about the future of vocation based education. As workforce demands require higher levels of skill and education, it will be incumbent upon Canadian colleges to carry their legitimate weight of this educational responsibility. One of the primary roles of colleges, traditionally, has been to prepare students for work and to accommodate the changing needs of the local, regional and, now, global labour market. In moving towards applied degrees, colleges are not divesting themselves of this critical social service but are expanding their role to provide legitimate career specific advancement options. Although there are challenges in the development of such programs, applied degrees have the potential to serve all stakeholders well.

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