

INTERDISCIPLINARY COLLEGE PROGRAMMING IN THE TRADES FOR THE 21ST CENTURY: THE ROLE OF LEADERS IN HIGHER EDUCATION

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ABSTRACT

Pan-Canadian public post-secondary trades programming has traditionally encompassed foundation and apprenticeship training. Canadian based trades programming encompasses training designed to meet the needs of industry while achieving the technical competencies required to realize the esteemed Red Seal credential as articulated by industry and government. As industries continue to diversify and small business continues to expand globally, an opportunity exists to enhance traditional College based trades programs, to prepare graduates for opportunities within the small business sector. The enhancement of traditional programming in the form of diversification through an interdisciplinarity trades training model is under consideration. Interdisciplinary programming which moves beyond the trades and encompasses relevant business and entrepreneurship skills.

Over the years the correlation between educational achievements, income levels, and regional economic well-being has been a common topic. The acknowledgement that education, workforce development and related policy should ideally work in sync has prompted discussion and contemplation as to how best to advance with innovative educational programming, while strengthening engagement with industry and commerce. The increasing need for education to align with workforce considerations is the genesis behind the research study. An opportunity exists to inform the evolution of an educational framework which will formalize a state-of-the-art interdisciplinary trades training model aligned with small business development and entrepreneurship.

From a systems perspective the researcher is identifying internal and external variables and necessary mechanisms to support interdisciplinary trades programming within a public post-secondary college setting. Given the changing landscape in academia, the researcher is exploring the practicality of an interdisciplinary programming framework, while promoting the role of leaders in higher education in the advancement of programming to meet the labour market needs of the 21st Century. Although the research is in progress, the framework will prompt thoughtful and provoking discussion, while informing and challenging the opportunities and preconceptions.

INTRODUCTION

Across Canada, trades programming encompasses training designed to meet the needs of industry while providing learners with the opportunity to gain the technical competencies required to achieve the Red Seal credential. Across the spectrum of diversified global economies, small business and entrepreneurship ventures are becoming highly valued economic drivers (Acs & Audretsch, 2010; BDBC, 2016; Kelley, Singer, & Herrington, 2016). This presents an opportunity for educational leadership to enhance traditional post-secondary trades programs by preparing graduates for careers within and across the small business sector.

The enhancement of traditional programming through an interdisciplinary trades training model is under consideration. Interdisciplinary programming which moves beyond the specific trades and incorporates business and entrepreneurship skill, which affords graduates the opportunity to become active contributors to the global entrepreneurship ecosystem as a trade's specialist. An interdisciplinary educational framework which honours the needs and realities of rural communities while recognizing the importance and significant of rural social capital (Lyons, 2002).

From a systems perspective the researcher is identifying internal and external variables and necessary mechanisms to support interdisciplinary trades programming within a public post-secondary college setting. Given the rapidly advancing landscape in academia, the researcher is exploring the formalization of an interdisciplinary college programming framework, while articulating the role of leaders in higher education towards the advancement of training directly aligned with the labour market needs of the 21st Century.

CONTEXT

Globally and at a pan-Canadian level, the post-secondary system has been criticized for ultimately failing to prepare graduates for the workforce, failing to ensure applicability and transferability of credentials (Coates, 2015; Coates & Morrison, 2013; Kolm, 2013; Millar, 2014). As the Canadian Chamber of Commerce reports, the nation is on the verge of a grave skills labour shortage with this shortfall being estimated at 1.5 million employees between 2015-2020 (Morgan, 2014). The shifts in the Canadian economy presents an opportunity to strategically enhance the alignment of educational programming with the labour market needs of the 21st Century. Education which provides students with the opportunity to expand their technical core competencies whilst leveraging transferable skills as they pursue small business/entrepreneurship ventures.

There is a degree of urgency and consequently the responsibility for the public post-secondary system to review and assess the needs and viability of program diversity, as institutions increasingly becoming vital pillars for

social and economic development (Council of Ministers of Education, 1999; Dabson, 2001; Singmaster, 2016).

The model of Canada's community colleges stems back to the 1960's during a time when there was pressing public demand for ease of access to rural-based post-secondary education. This need declared by rural citizens was the beginning of a notable transition for post-secondary rural education and training aligned with regional workforce requirements (Casner-Lotto & Barrington, 2006; Gallagher & Dennison, 1995; Schuetze & Dennison, 2005).

Community colleges like all institutions of higher learning are ideally embedded within each of their regions. Thus have the responsibility to engage with neighbouring industries and organizations as an active contributor to collaborative and cooperative networks aimed at community and economic development (Boyer, 1996; Maurrasse, 2001). As noted by Ostrander (2004), institutions are poised to benefit from active community engagement. The related processes and actions can ultimately inform program advancement, educational pedagogy and student-based civic outreach, fostering and enabling the meaningful application of skills and knowledge across all sectors. Jacoby (2009) encourages the importance of post-secondary institutions embracing and creating models of civic engagement across all levels of the organization, from its fundamental mission statement throughout all levels of program development, curriculum delivery, and day-to-day organizational operations.

The increasing need for education to align with workforce considerations is the genesis behind the research study. There is an opportunity to inform the evolution of an educational framework to advance innovative interdisciplinary trades programming, aligned with small business development and entrepreneurship specific to rural British Columbia. Moreover, the advanced model can potentially be applicable to all nations through collaborative networking.

INTERDISCIPLINARY PROGRAMMING

Although academia has defined interdisciplinary as involving two or more disciplines or specializations, Davis (1995) notes that the term "involving" does not address the degree to which disciplines come together. Kockelmans (1979) presents a more descriptive relationship and outlines that interdisciplinarity involves the coming together of specializations to inform a new discipline. What transpires or evolves from this transdisciplinary connection is obviously influenced by the core subject matter, however it is expected that the process and outcomes are directly influenced by the perspective of those involved and the context of the discussions and development (White, 1981).

De Condillac and Aarsleff (2001) state that the evolution of knowledge is the process of human experiences which are ultimately assessed, applied,

adapted, adopted and informed over time. The relationship of all elements and their relative considerations essentially informs varied combinations of outcomes resulting in expanded or new knowledge.

The researcher intends to pursue this interdisciplinary framework for trades programming as a vehicle for transformation. Through the inclusion of multiple stakeholders and the vision of informing practice to achieve new goals, it is envisioned that an enhanced training framework will evolve preparing graduates for a rewarding career as business owners and/or entrepreneurs within the trades sector.

EDUCATION, ECONOMIC AND SOCIAL DEVELOPMENT

Administrators of higher institutes of learning should be committed to the notion of finding balance between institutional and community needs. Institutions are often criticized for being organizationally centric, primarily focusing on the needs of the university or college, with community considerations lacking precedence in planning or development (Cruz & Giles, 2000). Institutions have the potential, and often the fortitude, to hold a regional leadership role in providing unique and valued contributions to the community in support of advancement and required or related change processes (Hudson, 2013).

You will observe that the mission and vision of most educational institutions embraces the priority of quality education, engagement, and consideration to the social and economic well-being of the region being served. A constant diligence in higher education requires post-secondary institutions to not merely support skills development, but also contribute to progressive community transformation (Hudson, 2013). The role of post-secondary institutions is multifaceted and is best achieved when guided by engaged and progressive leaders who recognize post-secondary education as vital to regional economies fostering capacity building through a holistic formation of networks supporting collaborative and cooperative knowledge dissemination.

Over the years consideration has been made to the correlation between educational achievements, income levels, and regional economic well-being (Aghion, Boustan, Hoxby, & Vandenbussche, 2009; Holland, Liadze, Rienzo & Wilkinson, 2013). The acknowledgement that education, workforce development and related policy should ideally work in sync has prompted discussion and contemplation as to how best to advance with innovative educational programming while strengthening engagement with industry and commerce (Carree & Thurik, 2010; Goetz, Fleming & Rupasingha, 2012; Vandal, 2009). The increasing demand for progressive education to align with workforce considerations provides a key opportunity for institutions to enhance current educational frameworks in order to formalize innovative interdisciplinary trades programming.

Weerts (2011) articulates that higher education can see advancement by engaging with community while ensuring that the institutional mission and goals are aligned with regional social and economic priorities. The alignment of post-secondary education and labour force considerations is strategic and prudent and quite candidly bodes well for all levels of institutional development and potentially the acquisition of required resources. The institution evolves as a central organization which fosters capacity building and as noted by Cantor (2009, p.9), becomes an anchor institution fostering collaboration in a democratic manner whilst creating a "pipeline of inclusive human capital for the future". Axelroth and Dubb (2010, p.3) note that anchor institutions can "consciously apply their long-term, place-based economic power in combination with their human and intellectual resources, to better the long-term welfare of the communities in which they reside". They present that institutions hold a multifaceted role and can benefit from the sharing of their expertise and capacity in support of community social and economic development (Axelroth & Dubb, 2010).

ROLE OF ADMINISTRATORS

The role of administrators in higher education with consideration to interdisciplinary College based trades programming in the 21st Century is quite complex and thus multidimensional. As community leaders, College administrators within Canada, hold portfolios which are typically expansive and dynamic. This submission places emphasis on the role of the Dean as a vital administrator who supports the Vice President and thus ultimately the Office of the President. The office of College Deans especially in rural community colleges, involves a vital leadership role in motivating, influencing, collaborating, negotiating and ultimately forward planning. Working with faculty, college staff, students, community, funders, industry and government, to advance meaningful education to meet the needs of the current and future workforce.

The typical trades' training portfolio within the context of a community college is required to be responsive, while being influenced by many variables such as labour market, industry, community, and government. When considering the role of College Administrators in the advancement of interdisciplinary trades programming, the Dean responsible for programming is essentially the nucleus for development, and guides what direction and priorities are set and supported through institutional mechanisms and processes which inform and support the overall academy in a systematic manner.

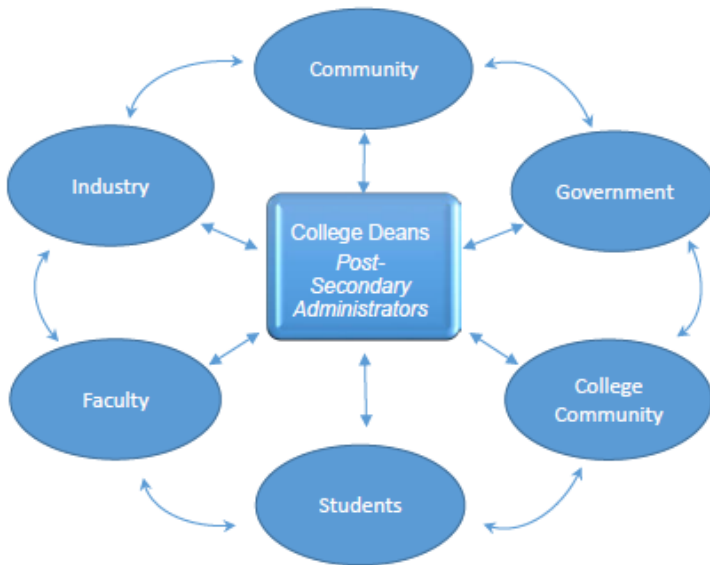
The Dean capitalizes on the opportunity to initiate, advance and facilitate engagement with multiple stakeholders in a leadership role which is especially critical during program planning and development. Through formal and informal networks of consultation, the Dean has the ability to inspire associations between faculty, industry, business, employers, funders, government and students, with the common goal of supporting a

community of stakeholders to advance programming aligned with regional economies. The administrator's role in the advancement and sustained delivery of post-secondary programming encompasses consideration to multidimensional and multifaceted stakeholder engagements. These are both internal and external stakeholder engagements with the administrator being the catalyst in fostering cooperation, mentoring and advancing discussions which generates linkages and synergies of collaboration, efficiency, innovation and excellence.

McKersie (2012) notes that the Dean of any higher learning institution is a negotiator holding ultimate responsibility of supporting, advancing and achieving educational excellence. Lax and Sebenius (1986, p.263) express a similar perspective in that "the very definitions we use of managerial functions should admit and not hide the fact that much organizational life involves negotiations". This is an important consideration in higher education, as the Dean is a lead administrator and not only a facilitator, who holds a significant responsibility of ensuring educational relevancy and the ethical and sustained operations of the organization, through negotiation and definitive decision making. Of course every organization varies; however, typically the Executive Administrative Office relies on the Dean specific to any discipline area, to have the skills and abilities to work across all arenas with all stakeholder groups, whilst having the capacity to balance the reality of achieving the educational mandate, being fiscally responsible, supporting and informing policy, while ensuring engagement, institutional and student advancement. This process involves stakeholder engagement and thus an innate ability to work with diverse interest groups.

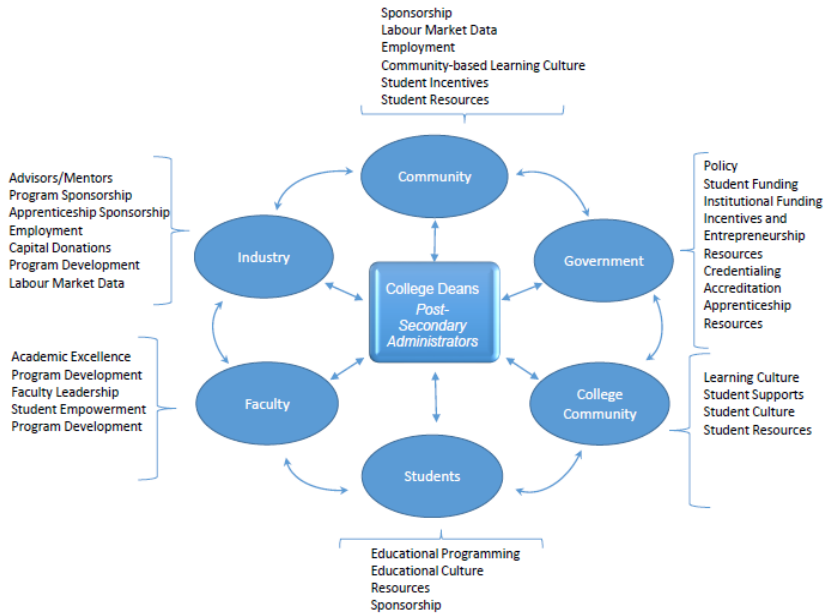
As a Dean, a holistic model for engagement involves encouraging increased awareness of the value and opportunity for collaboration and cooperation lying in the best interest of students and community. The Dean has the opportunity to support and advance programming through stakeholder engagement with the process being complex, including no less than six primary stakeholder groups. For the purpose of advancing an interdisciplinary trades entrepreneurship training framework, the following schematic (A.8) is an outline of the involved key stakeholder groups.

Figure A.8: Interdisciplinary Trades Entrepreneurship Stakeholder Engagement Model



The stakeholder engagement process remains fluid and requires time and commitment to develop and sustain. Within each of these stakeholders groups, there are a multitude of considerations and variables which will inform, potentially hinder, and quite conceivably define all aspects of program advancement. Without a holistic stakeholder engagement process, administrators need to be cautious of advancing with programming that may recruit siloed and counter-intuitive perspectives, which can compromise the institution and region in which it serves. As an administrator in the 21st Century, having the ability to engage innovative collaboration and cooperation among all stakeholders is essential to the advancement of post-secondary education. The progressive development of interdisciplinary programming in the trades requires consideration to a multitude of variables which directly or indirectly aligns with each stakeholder group as demonstrated in Figure B.8.

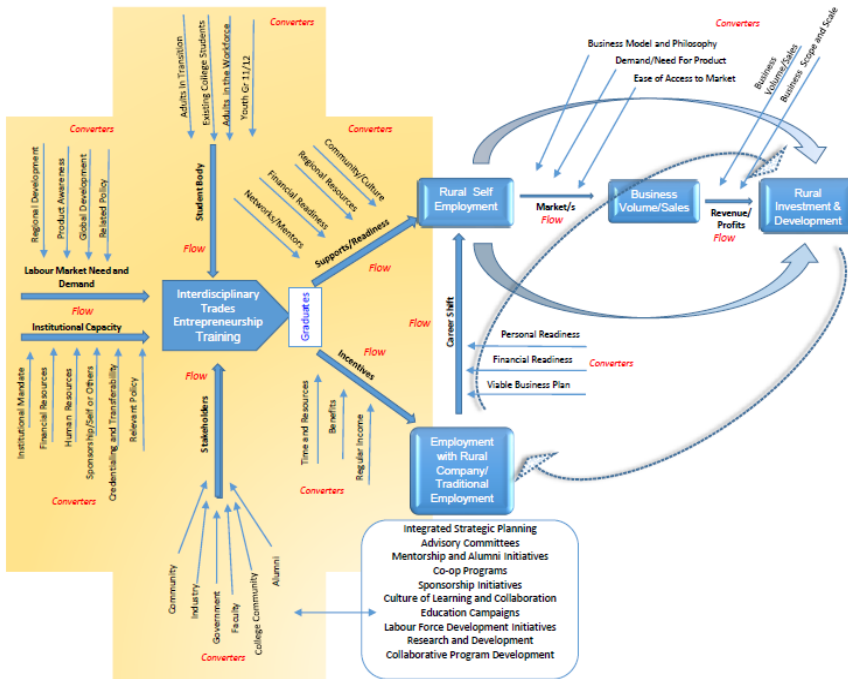
Figure B.8: Interdisciplinary Trades Entrepreneurship Stakeholder Engagement Model: Sample of Influencing Variables



When contemplating the role of administration in higher education, the consideration of academic programming within the overall organizational philosophy and structure is always a primary factor for development. Gibbs' (1993, p.2) notes that entrepreneurship education as it relates to organizational culture should be contemplated as he encourages a drastic shift in post-secondary education while promoting the need and opportunity for entrepreneurial universities where "entrepreneurship becomes part of the fabric". Edelman, Manolova and Brush (2008); Solomon, Duffy, and Tarabishy (2002) also present reviews of entrepreneurship programming and the need for education to align with the real-world context of business start-up, product development, innovation, right through to succession planning. Edelman, Manolova and Brush (2008), observe that limited research has been completed to ascertain whether what is being taught in business and entrepreneurship programs directly transfers to vital operational considerations of business start-up, maintenance and growth. The relevancy of programming is a key consideration when advancing with interdisciplinary programming in the best interest of learners and rural economies. The misnomer that formal training in business administration is ideally suited for any budding entrepreneur will be reviewed and informed by stakeholders, as the core competencies required for venture start-up fundamentally differ from those required to manage daily business operations (Gartner & Vesper, 1994).

This written submission will be supplemented by a presentation delivered at the Conference “Towards excellence in leadership and management in higher education”, whereby the Interdisciplinary Trades Entrepreneurship Training System Map will be presented and contemplated in relation to the role of the College Administrator in advancing interdisciplinary programming.

Figure C.8: Interdisciplinary Trades Entrepreneurship Training System Map



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