

7-2014

Leading the Leaders: Embedded Educational Leadership Initiatives at the University of Windsor

Alan W. Wright

University of Windsor, awright@uwindsor.ca

Beverley Hamilton

University of Windsor, beverley@uwindsor.ca

Jessica Raffoul

University of Windsor, jraffoul@uwindsor.ca

Peter Marval

University of Windsor, pmarval@uwindsor.ca

Follow this and additional works at: <http://scholar.uwindsor.ca/ctlreports>



Part of the [Scholarship of Teaching and Learning Commons](#)

Recommended Citation

Wright, Alan W.; Hamilton, Beverley; Raffoul, Jessica; and Marval, Peter, "Leading the Leaders: Embedded Educational Leadership Initiatives at the University of Windsor" (2014). *Centre for Teaching and Learning Reports*.

<http://scholar.uwindsor.ca/ctlreports/3>

This Book is brought to you for free and open access by the Centre for Teaching and Learning at Scholarship at UWindsor. It has been accepted for inclusion in Centre for Teaching and Learning Reports by an authorized administrator of Scholarship at UWindsor. For more information, please contact scholarship@uwindsor.ca.



LEADING THE LEADERS:

Embedded Educational Leadership Initiatives at the University of Windsor

A Ministry of Training, Colleges, and Universities Productivity and Innovation Fund Initiative
July 2014



University
of Windsor

- The Teaching Dossier Academy Scheme**
- Monday morning: introductory workshop followed by lunch together
 - Monday afternoon and Tuesday: individual meetings with a mentor
 - Wednesday morning: second workshop to stock
 - Wednesday afternoon and Thursday: second meetings with mentors
 - Friday: complete dossier for submission, reception and certificate ceremony

Project Lead: Alan Wright

Lead Writer: Bev Hamilton

Editor: Jessica Raffoul

Graphic Design: Peter Marval

Photography: Centre for Teaching and Learning

Report Contributors:

Theimann Ackerson

Dave Andrews

Judy Bornais

Jess Dixon

Leonardo Gil

Erika Kustra

Suzanne McMurphy

Michael Potter

Nadia Timperio

The research team gratefully acknowledges the following for their assistance with this project:

Nick Baker

Pierre Boulos

Joe Branget

Joan Craig

Phil Graniero

Abby Nakhaie

Marilyn Powley

Tajana Ristic

Kaitlyn Schilling

Allyson Skene

Jennifer Stefanczyk

Lorna Stolarchuk



University
of Windsor

University of Windsor

401 Sunset Ave.

Windsor, ON

N9B 3P4

519-253-3000

<http://www.uwindsor.ca>

For more information about this project, please contact Alan Wright awright@uwindsor.ca

Contents

Executive Summary.....	5
Project Overview	7
Context.....	7
Project Purpose	8
Project Elements	9
Literature Review and Theoretical Framework	11
Environmental Scan: Initiatives at the University of Windsor	35
Funded Educational Initiatives at the University of Windsor.....	37
Project Reviews	40
Discussion	53
Future Directions	79
Preliminary Performance Indicators	80
Proposed Professional Development for Educational Leaders	91
Approaches to Expanding Embedded Educational Leadership Initiatives.....	92
Opportunities for the Growth of the Distributed Leadership Model in Ontario	100
Opportunities for Collaboration in the International Context.....	101
References.....	103
Appendix A- Internally-Funded Educational Initiatives at the University of Windsor	115
Appendix B - CLIF Impact Study Interview Protocol	139
Appendix C - CLIF Impact Study Network Maps.....	145
Appendix D - Opportunities for Collaboration in the International Context.....	149



Executive Summary

This project explored the impact and scope of embedded educational leadership initiatives (EELIs) at the University of Windsor. EELIs are programs through which individual members of the campus community autonomously and often collaboratively develop and pursue educational improvement projects within their own contexts. Such initiatives are quite common at Canadian universities, and can include, for example, small grants schemes, teaching chairs, and peer observation of teaching networks. They serve many needs at universities, and are widely believed to be an effective approach to improving teaching and learning, driving innovation, building leadership capacity, and communicating the value institutions place on quality teaching. There has been comparatively little empirical research on the outcomes of these programs, and infrastructure for their evaluation for improvement of productivity or strategic alignment tends to be limited. Moreover, despite their strong potential, without a coordinated approach, it is hard to capitalize on the expertise created over time, to bring groups together to address joint concerns through collaborative initiatives, or to establish mechanisms to identify and further support projects whose expansion or duplication would be of benefit to other units on campus.

In order to seek solutions to these challenges and develop a baseline understanding of the EELI context on our campus, the project team undertook a systematic review of a range of EELI-supported project across disciplines, roles, project types, and funding sources at the University of Windsor, a systemic approach that does not appear to be common in the literature. This involved a first-ever comprehensive listing of internally funded educational leadership initiatives across the University, two case studies of major educational leadership initiatives at different stages of their development, a fresh review of the literature on the subject, and the launch of an annual educational leadership forum, which brings together major players with diverse roles from across campus for a detailed exploration of their current activities, contexts, challenges, and views in order to support and better facilitate thriving educational leadership on campus.

Drawing on the research literature to inform our understanding of the data, we identified a model of distributed educational leadership that strongly resonates with the characteristics, strengths, and challenges of our context, and which is emerging as a core approach to understanding university leadership in other jurisdictions. At present, the literature regarding leadership, informal or formal, at Canadian universities is very limited. The distributed leadership model is based on an understanding of universities as complex adaptive systems produced from the interaction of multiple and constantly

evolving networks. Members of the university work through these significant networks to navigate and make meaning across the adaptive system, making the imposition of broad-based policy unpredictable and potentially reducing or even impeding the impact of those policies. Over time, emergent leaders, who lead based on vision, influence, and action, develop within these significant networks whether or not they occupy a role of formal authority within the institution. Because of their influence within these significant networks, distributed leadership can be an effective way to bring about change in complex adaptive systems: however, these leaders operate most effectively in a context of constructive collaboration with the formal leadership of their institutions. Coordination of “top-down” and “bottom-up” perspectives and activities has been identified as a central challenge of institutional leadership. Given this approach, our study has crystallized around how to support EELIs as a form of distributed leadership, and how further to support both EELIs and the expansion of a thriving culture of distributed leadership at the University of Windsor through a coordinated, consultative, and democratic approach.

Our study identified a series of core themes for professional development for EELI participants based on a review of the University of Windsor Centred on Learning Innovation Fund program, consultation with educational leaders from across campus, as well as preliminary indicators to assess the impact of EELIs based on participant data and the conceptual model developed in the study. The broader finding was that the support of distributed leadership, in the form of EELIs, or otherwise, requires a more systemic approach, and the team identified six core objectives to pursue:

- Fostering individual and system capacity for change;
- Addressing structural barriers to educational leadership and innovation;
- Improving communication, knowledge exchange, and circulation;
- Fostering horizontal networks and encouraging egalitarian collaboration;
- Advocating for and supporting improved decision-making; and
- Coordinating and improving data collection.

A well-theorized and researched model of distributed leadership has not yet reached the stage of offering clear guidance regarding how best to proceed, or how to assess distributed leadership, despite the strong resonance of the model with the experience and practices of campus communities. Given this context, we are adopting a cautious and exploratory approach: our findings should not be considered a formal strategic plan, but are offered as possible starting points for dialogue, consideration among instructors, faculty, administration, and leadership regarding the strategic value of distributed leadership. This dialogue must explore how best to foster, support, and to a degree systematize how we approach the development of embedded educational leadership, always with an understanding that its autonomy is critical to its value.

Our core recommendation for the University of Windsor is to use this study as the basis for a detailed exploration of the principles and nature of distributed leadership in universities with the goal of establishing mechanisms and a strategic plan for raising awareness of and further developing distributed leadership campus wide. The report also provides possible strategic directions for the establishment of an educational leadership development and research agenda at the provincial level.

Project Overview

► Context

Since 2006, the University of Windsor has systematically sought to establish and expand embedded educational leadership initiatives (EELIs) across campus. EELIs are programmes that enable individual members of the campus community, occupying a wide range of roles, to develop educational projects within their own contexts, or to pursue various kinds of pedagogical development with a high degree of autonomy, often in collaboration with self-selected peer groups, and always voluntarily. These efforts have included the 2007 establishment of the Centred on Learning Innovation Fund (CLIF), which provides small infusions of funds for teaching and learning initiatives, the Peer Collaboration Network (PCN) (2011), and the recent establishment of the University of Windsor Teaching Leadership Chairs (TLCs) (2013). The Office of the Vice-Provost, Teaching and Learning, and the Centre for Teaching and Learning (CTL) supported the development of each of these initiatives.

Embedded educational leadership initiatives are common at Ontario and Canadian universities. Ten Ontario universities reported programmes comparable to CLIF on a 2010 international survey undertaken at the University of Windsor (Boulos & Wright, 2011). As of 2012, fifteen Canadian universities reported funded teaching leadership chair initiatives (seven in Ontario) (Eansor, 2012). Peer review of teaching programmes are increasingly common, often for formative (development) purposes, but in other mainstream instances such as the University of British Columbia, included in the repertoire of approaches used for summative review (Hubball & Clarke, 2011; Iqbal, 2013). These kinds of inquiry-based or innovation-driven educational leadership initiatives have widespread support from bodies including the Ontario Undergraduate Students' Alliance (OUSA) (Cockburn, 2011), Higher Education Quality Council of Ontario (HEQCO) (Grabove, et al., 2012), and the Council of Ontario Universities (COU) (COU, 2012).

Such programmes are intended to serve many needs. They are intended firstly to foster teaching excellence and improve the quality of the learning experience (for students, and for faculty). They are also often intended to drive grass-roots innovation, to improve productivity, to enable strategic collaboration, to recognize and reward excellent teachers, and to communicate that the institution values teaching. In principle, they demonstrate, in concrete ways, that the university and its diverse

communities are ‘change-capable’ (Fullan & Scott, 2009): that interventions can be effective and result in substantive changes to practice, policies, and values. They enhance the community and provide growth opportunities for mid- to late-career faculty seeking new challenges and opportunities. In political terms, embedded educational leaders are often “insider” advocates for teaching in the faculties, and collaborators who bring sources of information and input from the faculties to educational developers. This allows for interventions by those most likely to understand the territory, the people, and their needs, and creates opportunity and room to manoeuvre in what are often resource-strapped contexts. As Gunn & Fish (2013) put it, such programmes can create “an overall perception and lived experience” that institutional structures have the capacity to produce “teaching excellence through both... *deliberate* intention (expressed in formal policy rhetoric and informally in daily communication activities) and...provision of the practical resources/opportunities/capacity... necessary to act effectively on that intention” (p. 37).

However, for the most part institutions have very little empirical evidence of the effectiveness of these investments, and most lack infrastructure for the evaluation and improvement of programme productivity or strategic alignment (Morris & Fry, 2006). Very few institutions in the University of Windsor’s 2010 survey reported systematic impact evaluation mechanisms.

EELI-supported projects, though apparently cost effective and potentially enormously useful, face the many challenges of any grass-roots approach. They lack, for instance, the large-scale coordination that would extend investment impact, increase initiative sustainability, reduce duplication, and produce mutual awareness and synchrony between leaders in different units. Individuals embark on new EELI-supported projects with little awareness of whether their plans duplicate or overlap with existing projects. As Bolden, Petrov, and Gosling (2008) note, despite the benefits, grass-roots, or distributed, approaches to educational leadership are often challenged by fragmentation, overlap, confusion, and variable success. Further, these grass-roots leaders often have to start from scratch, with little systematic knowledge of the basics of educational change management, the scholarship of teaching and learning (SoTL), impact assessment practice, educational granting opportunities, or the navigation of institutional systems. Developing this expertise independently is both challenging and resource intensive, and can put promising initiatives at risk.

Successful EELI-supported projects tend to remain small-scale: as individuals move on to other ideas, projects, and responsibilities, expertise is often lost, and with it, a portion of the potential value of the project. Many effective projects may never rise to the level of institutional awareness necessary to extend the benefits of the investment made. At the institutional level, EELI organizers are often unaware of the strengths and weaknesses of various approaches to incentivizing and supporting EELIs, as there is limited communication or exchange among units or institutions – in part due to the deliberately decentralized model that is also one of EELIs’ greatest strengths.

► Project Purpose

This project has sought ways to evaluate and improve the return on investments made in EELIs by

developing a shared understanding of their impacts and limitations – understandings that can be used to improve communication, collaboration, and project coordination. Ultimately, the project seeks to enhance leadership opportunities for high-performing faculty without increasing programme cost, to reduce unnecessary project duplication, and help to more systematically align faculty initiatives with institutional strategic priorities where possible. The intent, over time, is to develop tools for gathering the kinds of multi-faceted empirical data universities need in order to make informed decisions as they attempt to prioritize resource allocation for faculty-based initiatives, and to develop more systematically and strategically integrated approaches to inspiring and supporting educational leadership.

► Project Elements

For the first time, the University of Windsor has undertaken a multi-faceted, cross-campus examination of existing and potential EELIs. This review has sought to integrate theoretical models of leadership and understandings of change in complex systems, with a broad-based review of embedded leadership activities on the University campus. This has enabled us to:

- formulate a clearer understanding of models from the research that best apply to our context and the ways leadership appears to be instantiated within it;
- draw from these models and the patterns of practice found in our review of current activities to formulate ways to assess impact and programme effectiveness; and
- establish a multi-faceted set of recommendations including suggested approaches to facilitating and supporting leadership, structural barriers and incentives to be further addressed, and long-term recommendations for professional development planning.

The following elements are included in this project:

- A limited literature review on embedded educational leadership, focusing on common themes, approaches, and challenges;
- A review of the current status and impact of the University of Windsor’s Peer Collaboration Network and CLIF programmes;¹
- Instruments for and approaches to assessing CLIF programme impact, which can be expanded for use on other EELIs;
- An environmental scan of current EELI projects at the University of Windsor, included on a webpage for campus use;
- A report on the outcomes of the inaugural University of Windsor Educational Leadership Forum;

¹ Although the original intent was to conduct an impact study of both PCN and CLIF grant programmes, the external consultant determined that PCN was in too early a stage of development for such a study. We have therefore included a review of the programme’s current status and an exploration of how findings from this study can be applied to PCN as it evolves.

- Recommendations to expand and improve EELI on campus, including EELI programme assessment practices based on perceived effectiveness of performance indicators used in the impact study, and recommendations for the developers of educational leadership modules; and
- Recommendations for the expansion and better support of professional development for embedded educational leaders.

Literature Review and Theoretical Framework

Although there is a substantial body of literature on leadership in higher education, the canon has many limitations. As Lumbly (2012) put it, research into leadership in higher education has “an indistinct concept at heart, generally employs a narrow range of methods, and reflects the perspectives of a skewed group of organisation members with a limited range of roles” (p. 1). This is a question of methodology and approach, but also a function of the complexity, contingency, and contextuality that characterize leadership practice. As Tagg (2003) puts it, “Few words are more frequently misused in discussions of organizational change than ‘leadership.’ [Yet] part of the essential scaffolding for changing institutional structures and processes is leadership. Sometimes what is needed is for formal leaders, persons vested with authority, to use their authority to remove barriers and open new possibilities. Sometimes what is needed is for persons to step up on a particular issue or problem and assume local, temporary leadership. Sometimes what is needed is just for a member of the group to speak up and say what everybody is already thinking or to raise a question that nobody was thinking about” (p. 335-6).

An educational leader effects goal-directed educational change, and can be understood to do so through vision, influence, and action, with the aim of realizing larger ideals connected to teaching and learning.

Kruse (2013) provides a useful definition of organizational leadership as “a process of social influence, which maximizes the efforts of others, towards the achievement of a goal.” Key elements of this definition are that leadership requires specific goals, and stems from social influence, not from authority – influence that is not necessarily determined by direct reporting relationships. Leadership can take many forms, and is not defined by specific personality traits or styles. Finally, it is strategic: this definition refers to “maximizing” the efforts of others in the service of achieving a goal. Thus, while there are many different kinds of leaders, and diverse ways of conceptualizing and classifying them, an educational leader effects goal-directed educational change, and can be understood to do so through vision, influence, and action, with the aim of realizing larger ideals connected to teaching and learning. These goals may vary in scale.

We would like to thank Michael Potter for his contributions to the development of this literature review.

As Lumby (2012) notes, research on the characteristics of effective leadership in higher education tend to suggest that good leaders should basically be good at everything, a finding that is not overly constructive, and probably a result of research methods that elicit opinion, rather than observing and evaluating leadership in situ. At the same time, there is considerable evidence that the effectiveness of a given approach or model of leadership is context-specific, audience-sensitive, and historically contingent (Bolden et al., 2012; Lumby, 2012; Trowler, Saunders, & Knight, 2003). Bolden et al. (2012) and Lumby (2012) both conclude that there may be little to be gained, in terms of understanding how leaders lead, from extending research into generalized opinions of what works in leadership. Understanding its functionality in practice and beyond its formal instantiations may require different approaches and conceptualizations. Although for example, it is common for participants to speak of the need for leaders to provide “vision” in the abstract, the reality may be less satisfactory: stakeholders tend to be critical of the unsatisfactory content of those visions. As Lumby (2012) put it, the research literature appears to “uncover more yearning for vision than examples of its establishment and effect in practice” (p. 8). Similarly, the interpersonal capacities that enable an individual to influence others are, perforce, enacted in a context of others – of an audience with its own culture and history. All leaders exist within a web of social relationships whom they influence, and who influence them. Leadership requires credibility. Others need to value and feel confidence in the leader’s ideas and behaviours, to feel some degree of loyalty to the leader, to feel empowered by the leader’s actions, to see the leader’s experience and expertise as relevant, factors that are only in part within the control of the leader (Bolden et al., 2012; Yuki, 2002). Still, models of effective educational leadership establish some preliminary characteristics from which to operate. We provide three examples below, re-organized to demonstrate their consistency with the categories of vision, influence, and action we posit in our definition.

Gibbs, Knapper, and Picinnin (2008) offer eight categories of leadership activity for department heads (see Table 1):

Table 1: Categories of Leadership Activity of Department Heads (Gibbs, Knapper, and Picinnin (2008))

	VISION	INFLUENCE	ACTION
• Identifying teaching problems and turning them into opportunities	✓		
• Establishing credibility and trust		✓	
• Articulating persuasive rationales for change		✓	
• Supporting change and innovation, and involving students		✓	✓
• Dispersing or distributing leadership opportunities and responsibilities		✓	
• Building a community of practice		✓	✓
• Recognizing and rewarding excellent teaching and learning development efforts			✓
• Marketing the department as a teaching success		✓	✓

Although Bryman's (2007) review of literature on effective leadership in higher education found the field to be problematically lacking in common definitions as well as limited in its actual research base he was able to identify common facets of practice identified with effective leadership in higher education (Table 2):

Table 2: Common Facets of Effective Leadership Identified by Bryman (2007)

	VISION	INFLUENCE	ACTION
• Providing direction	✓		
• Respecting existing culture while seeking to instil values through a vision for the department/institution	✓	✓	
• Establishing trustworthiness as a leader		✓	
• Having personal integrity		✓	✓
• Having credibility to act as a role model		✓	✓
• Representing the department/institution to advance its causes or networking on its behalf		✓	
• Providing communication about developments		✓	✓
• Creating a structure to support the direction			✓
• Fostering a supportive and collaborative environment		✓	✓
• Facilitating participation in decision-making and consistently functioning in a consultative fashion			✓
• Protecting staff autonomy		✓	✓

Bryman (2007) notes the consistency of these skills with Kouzes and Posner's (2003) well-known *Leadership Challenge* model, which emphasizes leading by example, consistency with values, inspiring a shared vision, a critically observant improvement orientation, promoting collaboration and empowering others, and celebrating others' accomplishments.

While the two models above focused on leaders' activities, Scott, Coates, and Anderson's (2008) study of over 500 academic leaders identified effective leadership in terms of competencies (relevant skills and knowledge delivered to a set standard in a given context) and capabilities (the ability to figure out when and when not to deploy competencies and the capacity to refine and update them). Given its less action-oriented approach, this model (Table 3) lends itself less explicitly to articulation across our three posited components of effective practice. Nonetheless, the skills articulated here resonate with the successful enactment of these dimensions of leadership. *Vision* requires the cognitive skills of diagnosis, strategic thinking, and the personal capability of decisiveness. *Influence* requires all of the interpersonal capabilities, the cognitive capability of flexibility of response, and many of the qualities listed under the personal capability of 'commitment'. *Action* requires all of the competencies identified, as well as flexibility of response (cognitive) and decisiveness and commitment (personal): in practice, action is likely to require all of these spheres of capability and competence.

Table 3: Effective Educational Leadership (Scott, Coates, & Anderson, 2008)

	VISION	INFLUENCE	ACTION
Personal Capabilities			
• Self-regulation/ Self-awareness		✓	
• Decisiveness / Making tough decisions	✓		✓
• Commitment (energy, passion, enthusiasm, taking responsibility, perseverance, pitching in)		✓	✓
Interpersonal Capabilities			
• Influencing		✓	
• Empathizing		✓	
• Conflict resolution		✓	
Cognitive Capabilities			
• Diagnosis (pattern recognition, core issue identification, identification of salience)	✓		
• Strategic thinking(seeing and acting on opportunities, goal setting, prioritizing)	✓		
• Flexibility of response (adjusting, refining, tolerating ambiguity and changing circumstances)		✓	✓
Generic Competencies			
• Self-organization skills			✓
• Meeting management			✓
• Time management			✓
• Present			✓
Role-specific Competencies			
• Teaching and learning (curriculum design, programme evaluation, programme launch, pedagogy, identification and dissemination of effective practice)			✓
• University operations (risk management, collective agreements, campus services, legal issues, finance, policies and procedures)			✓

The effective leader might be defined as “one whose organisation achieves more than might be expected in light of the starting point.”

(Lumby, 2012, p. 9)

Evaluating the effectiveness of leadership is extremely complex. For one thing, individuals can establish a strong vision, influence others to pursue that vision, and engage in the necessary actions to make the vision a reality, but act in the service of the wrong vision. Also, as Lumby (2012) points out, the establishment of easy-to-achieve goals, could make a judgement of effectiveness quite straightforward, but inaccurate. As Gibbs, Knapper, and Picinnin (2008) note, the educational leader, whose role is to inspire changes in educational practice, may be viewed by some as non-traditional in academic cultures accustomed to prioritizing research. This stance can alienate educational leaders

from their colleagues: according to Gunn and Fish (2013), it has the potential “to obstruct the necessary demonstration of empathy with local academic motivation” (p. 43). Further, the specific challenges of a

context may impact the relative success of one leader over another. Therefore, the effective leader might be defined as “one whose organisation achieves more than might be expected in light of the starting point” (Lumby, 2012, p. 9): one can readily see the degree of discernment and expertise required to make such an assessment. Nonetheless, the patterns of vision, influence, and action appear foundational to many of these articulations, and may provide a basis for organizing further reflection on leadership in practice.

One well-established research tradition has typologized a variety of leadership styles and approaches. In general it is understood that leaders will shift among these, although they may of course favour certain styles consciously or unconsciously, and may also operate with a relative unawareness of certain aspects of leadership practice (Kouzes & Posner, 2003). The inset (at right) provides an illustrative overview of four common typologies.

► Dialectical Understandings of Leadership

In addition to typologies of leadership style, there is also a long tradition within the literature of dialectical approaches to parsing leadership, where two modes of leadership are set up in opposition to one another. These divisions provide a useful way to understand some of the tensions within leaders’ practices and roles, though in practice they are better understood as ends of a spectrum along which leaders operate, and along which any given leader may shift depending on context, situation and to some extent capacity. Common dialectics proposed in the literature include:

- formal vs. informal leadership,
- transactional vs. transformational leadership, and
- leadership vs. managerialism.

Typologies of Leadership

The traditional *heroic leader* (Juntrasook, Nairn, Bond, & Spronken-Smith, 2013) is confident, bold, self-directed, focused, solitary, and determined. The heroic leader still dominates many discourses about leadership. This is leadership through direct action, “taking charge” of a situation and forcing the world to bend to one’s will. The effectiveness of heroic leaders “is dependent on a relatively high level of a ‘heroic’ sense of personal responsibility” (Gunn & Fish, 2013, p. 43), not to mention a degree of self-efficacy and actual power that few possess. The sort of influence involved in the heroic model tends toward the authoritarian – influence through direction and command, an influence of obvious power over others. Yet there are other forms of leadership that involve different types and combinations of influence and action, less heroic and often neglected. Although the heroic leader tends to be solitary and thus leads others, some heroic leaders are able to lead collaboratively with others.

The *facilitative* (or “*servant*”) leader influences others “from behind,” by acting as a constant support to those struggling to achieve, a resource and consultant who indirectly contributes to the shape of change through guidance and mentoring. The type of influence used by facilitative leaders is gentle and non-coercive (Heifetz, 1994). Facilitative leaders prioritize achievement and recognition for others, rather than for themselves. In a higher education context, facilitative leaders may take the initiative to identify people with good ideas for pedagogical initiatives who may need help learning how to put them into practice, aiding their efforts to navigate the labyrinths of bureaucracy and approval committees, gradually influencing their sense of self-efficacy and self-identity as leaders. Facilitative leaders (Barbuto & Wheeler, 2007) often believe they have a calling to help others, prioritize listening and empathy, and cultivate awareness and foresight, amongst other characteristics. Because they push others into the spotlight, facilitative leaders may not be seen as leaders at all, by themselves or others.

The *symbolic leader* acts consistently according to an ideal or set of ideals, modelling principled behaviour for others who may not even realize their ideas and attitudes are being influenced, changed, by the example set. In the political realm, the Queen of England functions as a symbolic leader. Her role is not to shape policy, but to embody a set of principles and behaviours to which others may aspire. On the other hand, in higher education, symbolic leaders tend to be exemplary colleagues who influence others by means of inspiration, making principled decisions and behaving according to a set of values that, over time, lends them credibility. A subtype of symbolic leader is the *scholarly teacher* (Potter & Kustra, 2011), who holds his or her teaching to the highest standards, adapting pedagogical practice to discoveries in the theoretical and empirical research literature, and critically reflecting on the results of practice.

A *scholarship of teaching and learning leader* takes the initiative to study and disseminate the results of teaching and learning efforts, influencing others through the results of his or her research. Through curriculum reform and other means, both scholarly and SoTL leaders may lead by bringing together research and teaching to effect meaningful change in curricula, pedagogy, assessment, and culture, which requires a “sophisticated understanding of how academics in the different roles perceive teaching and what this means for their orientation towards excellence in teaching” while valuing “different orientations to teaching within a given academic context” (Gunn & Fish, 2013, p. 43). Curriculum reform itself, as a locus of educational leadership, requires leaders to take the initiative to start complex processes and discussions, use their understanding of departmental and faculty culture to motivate others to contribute, rely on the credibility they’ve established not only as disciplinary experts but also as voices to which others ought to attend, and delicately manage the stew of competing priorities, values, and egos involved (Blakemore & Kandiko, 2012).

Formal vs. informal leadership

Heifetz (1994) defines formal leadership as “leading with authority” (through a formal position), a type of conferred power, and “leading without authority” (through an informal leadership function). This distinction mirrors Tagg’s (2003) distinction between structural leaders who occupy formal positions of leadership within an institution, and functional leaders who assume a leadership role in order to fulfill a purpose, influencing others to participate in the endeavour: “A structural leader leads because it is his or her job to do so. A functional leader leads because it is his mission to do so” (Tagg, 2003, p. 338). In practice, few people operate solely from one or the other of these positions. We use the term “formal leadership” to denote leading with authority, and “informal leadership” to refer to leading without authority. Rather than categories of leadership style, these are forms of institutional recognition. Institutional status functions as an additional dimension for thinking about leadership.

An emerging literature reflects a growing awareness of the roles and nature of informal educational leadership in institutions of higher education. Between 2005 and 2011, the Australian Learning and Teaching Council (ALTC) supported 62 projects exploring educational leadership in higher education through the ALTC Leadership for Excellence in Learning and Teaching Fund. In a review of the programme in 2008, Parker (cited in ALTC, 2011, p. v) noted:

[A]t the outset of the program, “leadership for excellence in learning and teaching” was a tantalisingly elusive goal for Australia higher education. The first round of applications demonstrated that the program was not understood well....Given the relative recency of sector-wide attention specifically to

leadership in learning and teaching, this slow evolution of understandings is not surprising, especially in the context of what has emerged as a deeply entrenched association of leadership with hierarchy and authority.

This is fairly typical: there has been as Burgoyne, Mackness, and Williams (2009) put it, a tendency to focus on leaders rather than leadership in higher education, and in specific an emphasis, both in the research and in the provision of professional development, on those occupying formal leadership roles in universities. However, the research tends to support the existence of ‘vertical’ and ‘horizontal’ power or influence in universities, invested respectively in those with “formal hierarchical power (top-down influence) and those relying predominantly on inter-personal influence (horizontal influence). A third type may well be those with less formalised roles within the university hierarchy but who, nevertheless, exert a great deal of influence by virtue of their control of sought after resources such as resource funding, academic reputation, political/social influence beyond the organization and/or a charismatic presence (bottom-up influence)” (Bolden et al., 2008).

Academic leadership “can be described as a process through which academic values and identities are constructed, promoted, and maintained” in distinction to the work of academic management, the purpose of which is to “organize and allocate academic tasks and processes.”

(Bolden et al., 2012)

In a study involving 350 academics from 23 UK universities, many participants argued that “much of what could be considered ‘academic leadership’ is not provided by people in formal managerial roles” (Bolden et al., 2012, p. 2). Academic leaders were viewed as undertaking three core activities: the provision or protection of an environment that enables productive academic work; the support or development of a sense of shared academic values and identity; and the accomplishment of ‘boundary’ spanning: the ability to create opportunities for external relations or connectedness. Becoming such a leader involved being seen by others to fight for a common cause, inspiring others, and representing exemplary academic or intellectual standards. Macfarlane (2011) identifies six main roles that academics may play as intellectual leaders: role model, mentor, advocate, guardian, acquirer (of grant resources, research students, contracts, etc.), and ambassador. Through these roles, academics acquire the credibility that is critical to their influence as informal academic leaders: as Bolden et al. (2012) put it, it is important that the leaders belong to, and are seen to belong to, an identifiable academic community, and that they undertake the critical and valued roles of those communities. Although true of leaders in both formal and informal roles, those in informal roles are reliant to a greater degree on the strength of their informal networks, relationships, and social capital, a reality that is often ignored in leadership research (Bolden et al., 2008; Flinn & Mowles, 2014). Given these characteristics, academic leadership “can be described as a process through which academic values and identities are constructed, promoted, and maintained” in distinction to the work of academic management, the purpose of which is to “organize and allocate academic tasks and processes” (Bolden et al., 2012).

Informal leadership is necessary but may not be sufficient to transform educational cultures. Ideally,

informal and formal leaders are able to collaborate, or a given individual has the capacity to function effectively as both. Both Collinson and Collinson (2009) and Gronn (2011) argue that such blended, or hybrid, leadership models are likely to be more effective in responding to the multiple contingencies and contexts across which change initiatives must occur. Further, a given individual may also be required to shift among types of role and influence in order to lead, even while occupying a formal role within the university hierarchy (Bolden et al., 2008).

Implicit leadership is a grey category between formal and informal leadership (Murphy & Curtis, 2013). Implicit leaders – programme coordinators, chairs of curriculum committees, educational developers, institutional assessment and accountability officers, and the like – have some form of formal leadership status within a narrow domain, and accordingly some responsibility. However, they typically have very little power and, since they are frequently embedded within their departments, face challenges that formal leaders with both power *and* responsibility may not face. The ambiguity of their roles and authority can create tension when they try to lead educational changes within their departments.

Unsurprisingly, implicit leaders build consensus by focusing on what will benefit the department and discipline, a shared concern that can bring together people with otherwise incompatible priorities. It is not easy for implicit leaders, who often suffer from role confusion and self-doubt, torn between accountability to their programme and accountability to their colleagues. They fear alienation from their peers, and are burdened by bureaucracy and the trap of responsibility without formal power (Murphy & Curtis, 2013).

Transactional vs. transformative leadership

Bass (1990) distinguished between transactional and transformative leadership. Transactional leadership focuses on transactions between a leader and followers; rewards employees for the accomplishment of goals; emphasizes compliance with policy, regulation, and expectation; motivates compliance through external rewards and punishments; and pays reactive attention to ensuring that procedures are followed (Brown & Moshavi, 2002). Transformative leadership, on the other hand, tends to focus on effecting change in individuals. According to Astin and Astin (2000), transformative leadership is ideological in nature, motivated by a desire to bring about fundamental change in the pursuit of a deeply held value or agenda. They propose five characteristics of transformative leaders: self-awareness, authenticity, empathy, commitment and competence. Gardiner (2005) describes transformative leadership as a process and delineates eight steps: developing a sense of urgency for change; constructing leadership teams; creating a vision and a strategy; communicating the vision for change; empowering everyone across the institution for action; engineering short-term successes; and solidifying improvements and embedding innovations in the organizational culture. In recent years, discussions about leadership have tended to favour the notion of transformative leadership (Bryman, 2007), which research has associated with greater effectiveness in teams and organizations (Barling, Weber & Kelloway, 1996; Stewart, 2006). Birnbaum (1992) argued that a constant emphasis on transformative leadership (which he calls “interpretive leadership”) can potentially be disruptive and damaging. He identifies its dialectical partner as “instrumental” leadership, associating it with the maintenance of stability, and arguing that both are necessary: the balance between them must be

determined contextually and situationally. Knight and Trowler (2001, cited in Bryman, 2007) argued that possibly an “interactional” model might be more appropriate to universities, one which showed sensitivity to the unique culture and characteristics of a given department, taking in to account both the need to be a “custodian of organizational culture” and a “cultural change agent” (Bryman, 2007, p. 9).

Managerialism vs. leadership

According to Gardiner (2005), management deals with first-order change, addressing well-understood problems for which solutions exist, while leadership deals with second-order, poorly understood problems that require “adaptation to new realities through changes in people’s values, beliefs and behavior” (p. 9). Management functions related to educational practice include establishing clearly aligned mission statements and criteria for decision-making, the establishment of intended learning outcomes, systematic assessment, research aligned with those outcomes, coherence of curricula, aligned instructional practices, systematic management of campus climate, a commitment to deep learning, emphasis on high-quality advising, and the systematic development of administrative competence.

However, leadership can also be required in order to move institutions towards the acceptance and implementation of these functions. “Effectively,” write Gunn and Fish (2013) “leadership in these cases is dependent on cooperation within collegiality” (p. 43). Thus, although management and leadership are distinct concepts, a manager who arbitrates and delegates fairly, who resolves conflicts and creates an atmosphere in which others thrive and achieve, who develops credibility and influences others to accept and even embrace changes, may also be a leader. The “managerial leader” tends toward stewardship, supporting the status quo to protect what is valuable, and to resist and ward off harmful changes.

Lumby (2012) indicates that research on leadership in university settings reflects a “somewhat polarised” view which positions leadership as a values-based endeavour focused on teaching, research, and enterprise, while management is institution-focused, process-oriented, and concerned with day-to-day operations (p. 6). As Bryman (2007) and Bolden et al. (2012) note, there is a strong sense in which formal management roles in universities are seen as distinct from leadership, connected with a sense of increasing “managerialist” pressures on universities, often seen to stand in conflict with traditional values of collegialism (Dearlove, 1995; Dean, 2008). Dean (2008) is particularly critical of ‘new managerialism,’ defined as the prioritization of management over other functions of an organization, emphasis on increased efficiency and doing more with less, hierarchical decision-making, the monitoring of achievement of targets, and greater cross-institutional competition across all sub-functions. She argues that managerialism has had a negative impact on academic work, subverting its purpose and emphasis across a range of scholarly practices resulting in a degree of overt performance management she describes as “an evaluative state” (p. 20). Hoyle and Wallace (2006) argue that managerialism has created more difficulties than it has solved, resulting in a general distancing of faculty from engagement with organizational change: an overemphasis on rationalizing practice and dismissal of ambiguity as a characteristic of complex organizations are seen as core problems, and also as fundamentally at odds with the perspectives typical of academics. Some research also indicates the existence of a category of “reluctant management” within academia: individuals who occupy formal

roles but who view themselves primarily as academics willing to take on certain administrative tasks on behalf of the department, rather than seeing these roles as leadership-oriented (Bryman, 2007). In recent years (and in particular in the UK), there has been a clear tradition in literature about university leadership suggesting a shift in the balance of formal leadership roles away from leadership and towards a more constrained managerial and administrative role (Bryman, 2007). At the same time, it is clear that in general true leadership tends to involve a balance of activities and characteristics typically situated on both sides of this divide.

► Leadership in Context

There is considerable evidence that the effectiveness of leaders is dependent on context and goals: what works in one instance may not work in another (Gibbs, Knapper, & Picinnin, 2008; Trowler, Saunders, & Knight, 2003). Trowler et al. note that pre-existing situations, history, social and emotional context, sense of personal agency, and individual priorities can all impact the reception of change initiatives (and of the leaders who lead them): for these reasons they recommend numerous small incremental changes, as well as multi-level and cross-functional leadership of change initiatives. Hallinger and Heck (1996) provide a model of leadership impact that reflects the highly indirect nature of some of the influences of leaders, further noting that the response of staff to a leader is a mediating variable, rather than an endpoint (cited in Lumby, 2012).

Leadership practice is not just influenced by context, it is constituted by it: the structures involved in a given situation are as important to how leadership can be instantiated as the personalities, dispositions, or skills of those involved in the situation.

All leaders exist in multiple social contexts simultaneously, and they are unlikely to be a leader in all of them, though they may perform leadership functions in several contexts either concurrently or in different, perhaps overlapping, periods. A leader's sphere of influence may be tightly focused or diffuse (Hultgren, 1989), and context, interacting with role, has an impact here. One's effectiveness as a leader (like one's effectiveness as a teacher) may be a function of the quality of the educational environment or culture as much as it is a function of the quality of the individual (Fanghanel, 2007) – and even then, may have more to do with “agency in a [given] context (and perhaps autonomy) as much as technical frameworks or instrumental structures” (Gunn & Fish, 2013, p. 37). As Spillane, Halverson and Diamond (2004) argue, leadership practice is not just influenced by context, it is constituted by it: the structures involved in a given situation are as important to how leadership can be instantiated as the personalities, dispositions, or skills of those involved in the situation. In the university context, for example, collegial governance, the status of various academic roles, and the nature of the reward structures all have significant implications for how people can and do lead. To understand the nature of educational leadership, it is therefore critical to better understand the contexts in which it is unfolding.

Bryman (2007) sought to identify contextual factors that make leadership in higher education distinct from leadership in other organizational contexts, focusing in part on the kinds of expectations that

typify the university environment. He found that, despite the many claims made for the distinctiveness of the context, expectations in universities overlapped considerably with a number of other settings. Still, he identified four distinctive patterns of faculty expectations for those in leadership positions: a commitment to maintaining and defending autonomy; a high degree of consultation regarding important decisions; the fostering of collegiality (both in terms of democratic decision making and in terms of mutual cooperation and support); and “fighting the department’s corner” with senior management and throughout the university’s administrative structures (p. 28).

Lumby (2012) notes that vulnerability to changing government policy and the challenge of leading highly expert, creative, and independent staff are common enough contextual characteristics in other fields. While the degree of autonomy demanded is distinctive, Lumby finds that feature in other educational sectors, and further argues that faculty autonomy is under considerable pressure, a condition possibly more pronounced in the UK context than ours. However, he concludes that although universities may not be as distinctive a context as is commonly claimed, the particular combination of factors – ambivalent goals, multiple and divergent disciplinary cultures, and the nature of academics and academic work – produces a distinctive environment, particularly in connection with the vigorous defense of autonomy and resistance to “limited and limiting forms of leadership” (Lumby, 2012, p.5), which inform the ways that leadership can be instantiated in universities. Bryman (2007) argues that academics’ need for independence and professional culture will tend to neutralize the impact of leadership behaviours generally. All of these characteristic expectations have serious implications for the ways in which leadership can be instantiated in universities (see also Hoyle & Wallace, 2006).

Astin and Astin (2000) argue that faculty members’ engagement with educational leadership is limited by certain features of academic culture. First, faculty members are often uncertain about who is supposed to take on leadership responsibilities. Definitions of faculty members vary, not only among institutions but within institutions, and so does the range of the formally-recognized rights and responsibilities. Many faculty members do not feel as though they are, or ought to be, educational leaders unless they hold a formal leadership position. Second, as academic culture has shifted to become more research-driven and discipline-focused, leadership opportunities may be perceived as service burdens, resented because they take time away from activities that are rewarded. In recent decades, as the financial situation of academia has become more austere, faculty members may feel as though they are already overburdened by work identified by formal expectations, and thus less inclined to take up leadership roles informally. Third, academic cultures tend to value individuality and autonomy at the expense of community-building and collaboration, which may also discourage faculty members from taking leadership roles. Finally, faculty members often express a sense of resignation or hopelessness about what can realistically be accomplished. The belief that faculty members and administrators cannot collaborate meaningfully is common, as is the belief that administrators do not value faculty expertise. Given these factors, faculty members may approach leadership opportunities with a sense of hopelessness. Although Astin and Astin (2000) argue that it is critical to change these beliefs if faculty members are to function as transformative leaders, and that in many cases, the realities behind these beliefs must also be changed.

Over the course of a series of workshops offered at national meetings and conferences, Diamond (2002)

gathered input separately from faculty and administrators regarding what they perceived to be barriers to change at their institutions. While there was some degree of overlap, as Diamond put it, “each group also perceived the other to be the main obstacle to institutional reform” (Diamond, 2002). Table 4 provides a summary of these perspectives. Although not explicitly identified by either group, the lists as a whole clearly also suggest a lack of effective communication infrastructure.

Table 4: Faculty and Administrator Views of Barriers to Institutional Change (Adapted from Diamond, 2002, Chapter 29)

ADMINISTRATORS’ VIEW OF FACULTY AS BARRIERS TO CHANGE	COMMONLY IDENTIFIED BARRIERS TO CHANGE	FACULTY MEMBERS’ VIEW OF ADMINISTRATION AS BARRIER TO CHANGE
<ul style="list-style-type: none"> • Knee-jerk reactions to change • Siege mentality • Fear of loss of job, tenure, or control • Skeptical/cynical about change • Suspicious of administration and trustees • Lack of concern for external constituencies • Senior faculty lack of interest in getting involved 	<ul style="list-style-type: none"> • Too much change already • Lack of community; territoriality among units • Lack of trust, respect, and openness • Lack of will, inertia, and fear of the unknown • Less risk in maintaining the status quo • Vested interest in maintaining the status quo • Lack of resources 	<ul style="list-style-type: none"> • Lack of courage or vision • Believe change initiatives are the responsibility of faculty • Fear losing control • Suspicious of or skeptical of faculty • Lack knowledge about change models and processes • Poor communicators

Silver (2003) investigated what faculty members and administrators understood to be the “organizational culture” of universities: most identified readily with a culture of research, even in non-research intensive universities. They were more likely to understand themselves in terms of a disciplinary identity than an institutional one, and viewed the university, if they believed it to have a common culture at all, as having a culture that was really only characterized by instability, confusion and conflict, generated within the institution, or by national policies, or the interaction of the two. For them stability lay not in the institution, but in the values of scholarship associated with the discipline and the academic profession. In Silver’s view, faculty identified primarily with a discipline-specific culture, and secondarily with an academic research culture: faculty did not identify with the notion of a centralized organizational culture or see themselves as members of one. It is small wonder, given this sense of university culture, that the academics who took part in Bolden et al.’s 2012 study did not consider leadership in universities to reside within formal managerial roles, but rather to arise from influential engagement among colleagues within their own disciplines or within areas of practice they considered to be salient to their academic identities: leadership development was viewed as a form of identity construction related to growth and maturation as academics, professionals, and members of the academy. The optimal roles for formal leadership may involve setting the tone, and providing positive working environments and opportunities for those in non-formal leadership roles to develop and extend their influence in constructive ways. It is clear from these studies that there is much work to be done in bridge building, establishing dialogue, and establishing trust among constituencies, especially given the kinds of external pressures facing universities and the degree to which so far these constituencies appear willing to blame one another for the outcomes of these pressures.

Given this context, it may be more productive to conceptualize leadership as functioning within and across communities of practice (Lave & Wenger, 1991), or significant networks (Roxå & Mårtensson, 2008). A community of practice is defined as a “group of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly” (Wenger, 2012). Communities of practice are defined by three critical factors: the domain (members are brought together by a learning need, explicit or implicit); the community (collective learning becomes a bond among members); and the practice (their interactions produce resources that affect their practice). It is important to understand this as a community of practitioners: the practice is the root of the formation of the community. This model can be readily seen in research practice, where academics tend to more comfortably view themselves as leaders (Ball, 2007), and where collaboration and the sharing of theory and practice in order to create new knowledge are fundamental to the tradition. However, the model of the learning community, a community of practice focused on a specific aspects of teaching and learning, has become an extremely common element of academic development work (Cox & Richlin, 2004). Communities of practice also form around the pursuit of SoTL (Huber & Hutchings, 2005).

It is clear from these studies that there is much work to be done in bridge building, establishing dialogue, and establishing trust among constituencies, especially given the kinds of external pressures facing universities.

The concept of significant networks (Roxå & Mårtensson, 2008) emerged from research regarding the conversations academics have about teaching, which identified that most instructors rely on a small network of ‘sympathetic others’ for private discussions, which forms the basis of conceptual development and learning. Roxå (2008) sees significant networks as a specific example of the community of practice, involving similar structural components. These conversations are characterized by privacy, trust in conversational partners, and intellectual curiosity. They are what Coffman (cited in Roxå & Mårtensson, 2008) refer to as “backstage” behaviour: contexts in which we believe that, if we are not in private, we at least believe we know who is watching. Roxå and Mårtensson refer to the systems in which these conversations take place as “significant networks:” there are no pre-determined boundaries around them (and they do not conform to disciplinary or departmental boundaries) and the networks are highly individual. These networks appear to be larger and involve more dialogue in contexts where the local culture is perceived to be supportive of dialogue about teaching and learning.

Roxå and Mårtensson (2008) note that the existence of such networks, and the value individuals place on them, provides significant insights into why changes in policy, strategy, or bureaucratic procedure so frequently have such limited impact on teaching practice. Each of these interventions is interpreted and evaluated across numerous “significant conversations” which differentially impact uptake. Seen through the lens of network theory, Roxå, Mårtensson, and Alveteg (2011) note that academic culture is constructed through the negotiation of meaning within these patterns of pathways.

In such networks, individuals have differential status, allowing some greater access to information and greater right to participate in discussions where collectively accepted meanings are negotiated (Hemphälä cited Roxå, Mårtensson, & Alveteg, 2011). These figures function as “hubs” to clusters of

individuals, and can play critical roles in determining the meanings and values ascribed to different behaviours. Becher and Trowler (2001) note two different networks at play in these contexts: a smaller one, in which individuals may test out new ideas and discuss problems, and a broader one used only as reference and orientation. Discussion within the broader context is unlikely to get to the heart of challenging issues.

Roxå, Mårtensson, and Alveteg (2011) go on to explore where the likely levers and traction points within significant networks might be, identifying the possibility of influencing the hubs, clusters, individuals' skills at receiving and sending information, the pathways themselves, and reorganizing to create new roles and pathways. Each possibility involves significant strategic challenges; ultimately, they argue that the likeliest locus for successful influence is across clusters, which are bound by the 'weak ties' of individuals who interact within more than one network. This approach requires the creation of opportunities for interaction among clusters, and environments which foster trust across clusters. This research is also in keeping with the findings of Clark's (1998) research on innovation-producing units in universities, which he describe as their "advanced developmental periphery" that operates on the periphery of universities' traditional organizational structures, and reach across old boundaries to create outside and non-traditional linkages. Clark (1998) argues that these units are critical to the evolution of more entrepreneurial universities. Roxå, Mårtensson, and Alveteg (2011) conclude that, given the enormous complexity of the system producing the culture, repeated, distributed, but coordinated efforts to effect change are more likely to be effective than isolated major change initiatives.

An investigation into the effects of multi-disciplinary networks populated with participants ranging across all levels of experience, with different ideas and interests (a study that was itself funded by a small grant project akin to CLIF) found encouraging results. The participants had previously felt "isolated and unsupported" in their work, as well as torn between the need to develop their own identities and research profiles while also helping others (Morón-Garcia, 2013, p.33). Motivations for joining a network or community of practice focused largely on developing familiarity with new research methods, literatures, designs, and rhetorical techniques – as well as a desire to discuss these topics and share ideas in a 'safe' place (p. 34).

Participants' experiences with the research network were assessed using an online survey. Although the response rate was low, 45% of respondents indicated that participation in the network improved their ability to conduct and evaluate pedagogical research, 65% indicated that it helped them maintain social contact with colleagues, and smaller percentages indicated that it helped them share experiences and get support confidentially, disseminate their work, find new collaborators, and facilitated data collection. To function well and sustain itself over time, the research noted, the network required a shared purpose or goal, a shared vocabulary, and a group culture that valued and encouraged trust and generosity (Morón-Garcia, 2013). Facilitative leadership was critical to the success of the network: "The importance of the network facilitator/coordinator role to the success of the network should not be underestimated" (Morón-Garcia, 2013, p. 36). This role – what Jones and Esnault (2004) call an "animator" and Wenger (2009) calls a "social artist" – is a difficult one: it can be emotionally and psychologically exhausting, requiring constant vigilance, deployment of social influence, and problem-solving.

It is important to keep in mind that while the notion of the community of practice resonates strongly with how academics operate within their institutional contexts, understanding the whole university as a single community of practice is an oversimplification. As Hamilton and Graniero (2013) put it, the notion of a university as a “knowledge community,” seems “too narrow and too homogeneous to capture the experience of the citizens of post-secondary institutions, with their diversity of interests, cultures, and concerns occupying a shared place, creating multiple layers of movement, friction, circulation, transaction, and capital.” They describe universities’ self-regulating and complex relational knowledge networks through the more daunting idea of the “knowledge metropolis”: in effect, a “city” of interdependent and interconnected communities of practice, made up of individuals who may have “homes” across numerous networks.

A university can be seen as multiple “neighbourhoods:” networks of individuals (formal or informal) which operate simultaneously in different ways, for different reasons, to accomplish different goals, in different parts of the university. The broader system is “emergent:” produced through the interaction of these interdependent, mutually responsive, but potentially not mutually visible networks.

Understood in this way, the university reveals itself as a complex system. A university can be seen as multiple “neighbourhoods:” networks of individuals (formal or informal) which operate simultaneously in different ways, for different reasons, to accomplish different goals, in different parts of the university. The broader system is “emergent:” produced through the interaction of these interdependent, mutually responsive, but potentially not mutually visible networks (Hamilton & Graniero, 2013). This is not to say that the networks, or subsystems, are in full co-operation: they are often in competition for scarce resources, and will tend to function in their own best interests, or in the interests of the network with which they most closely identify (Baets, 2006). Sterman (2006) describes the following characteristics of complex systems: they change constantly; everything in a system is connected to (and will react to) everything else; they are governed by feedback loops; they are non-linear, so effect is rarely proportional to cause; they are self-organized, adaptive, and evolving; they are counter-intuitive as cause and effect may be difficult to identify; and finally, they are policy resistant – the complexity of the system overwhelms our ability to understand it, and the networks through which we make meaning from our experience create interpretive differences that impact collective understanding (Roxå, Mårtensson, & Alveteg, 2011). Seemingly obvious solutions fail or make things worse, further contributing to the disconnect between policy and its cultural acceptance (Sterman, 2006). Key characteristics of systems that are of particular interest in thinking about universities are their interdependent structures, ill-defined boundaries, and behaviours that trigger changes to other parts of the system or loop back on themselves in ways one might not expect.

Much of the literature exploring leadership in university systems focuses on the formal roles of the hierarchy, and our awareness of leadership in universities has traditionally been predicated on the basis of the roles within those hierarchies. However the actual day-to-day practice of leadership,

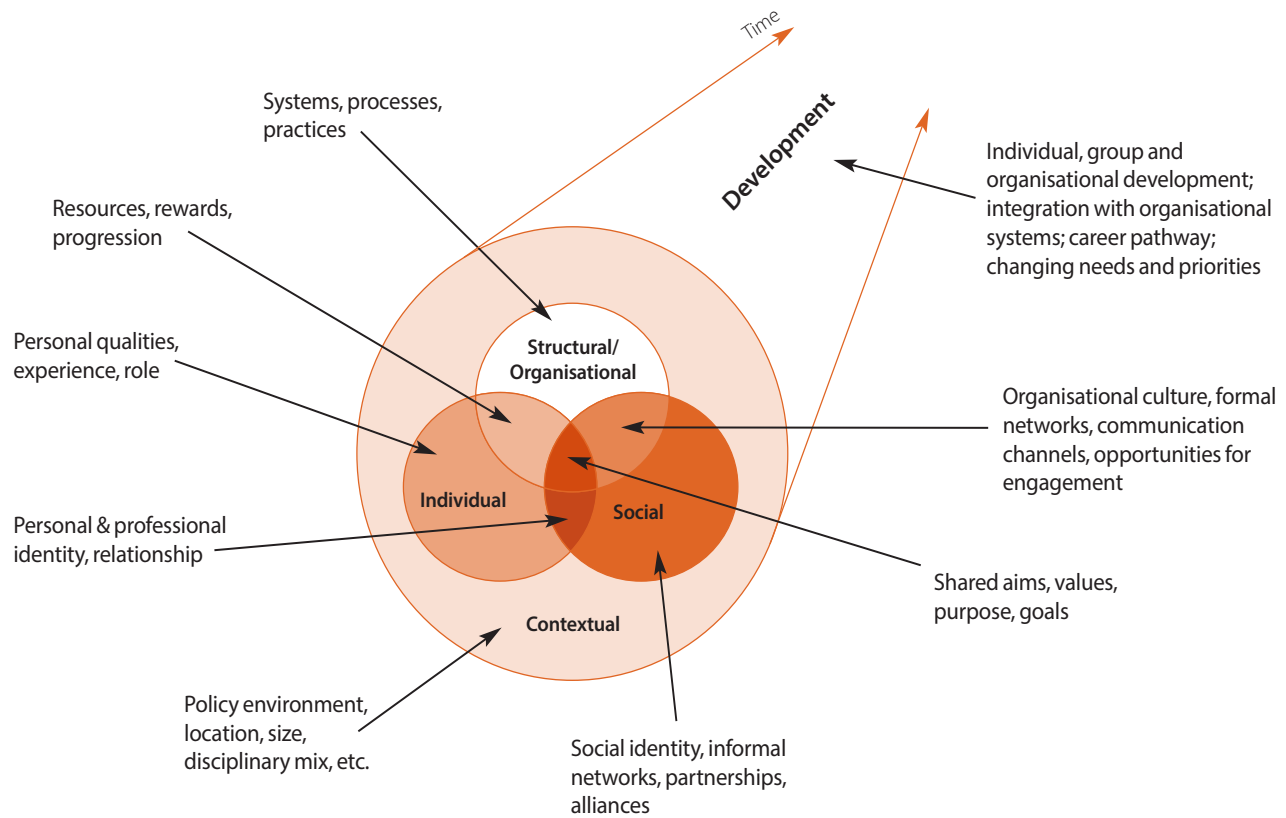


Figure 1: Dimensions of Leadership in Higher Education (Bolden, Petrov, & Gosling, 2008, p. 60)

of influencing and effecting change in universities, takes place within an organic, networked, dynamic, and evolving adaptive system. There is a real and critically problematic mismatch here. As Flinn and Mowles (2014) note, we continue to apply managerial and leadership models predicated on the predictability and controllability of organizational life, while in fact the process of change within complex systems is more contested and considerably less predictable than that. From their perspective, leaders are “particularly powerful players in the game of organisational life. As the game unfolds, so leaders play and are played by the game; influencing while simultaneously being influenced” (p. 1). Sterman (2006) explores the results of this problematic mismatch in the field of health policy. As a starting point, he cites 11 examples of major policy initiatives that failed or exacerbated the original problem, because those leading them failed to take system complexity into account. Leadership in complex systems is highly political, and very challenging – common sense solutions rarely are. As Lumby (2012) notes, the only certainty is that leadership is complex and contingent. It may be that the absence of definitive knowledge about leadership has more to do with its nature than with a failure of research methods.

The actual day-to-day practice of leadership, of influencing and effecting change in universities, takes place within an organic, networked, dynamic, and evolving adaptive system.

Based in a similar understanding of the higher education context as a complex adaptive system,

Bolden, Petrov, and Gosling's 2008 study of the development of collective leadership in higher education provides an exceptional summary of the dynamic interplay among five main groups of factors in leadership in higher education: the individual, social, structural, contextual, and developmental (reflective of how the system is changing over time) (Figure 1). This model effectively synthesizes the findings of other researchers seeking to understand the interactions of context, role, community, personal disposition, and strategy in leadership in higher education (Bolden et al. 2012; Ramsden, 1998; Trowler, Saunders & Knight, 2003), adding to it the dimensions of structure and change over time. In this model, the authors represent structural, individual and social dimensions of leadership as overlapping and interacting. All three are situated within and therefore informed by a specific institutional context. They further identify aspects of practice produced by the interplay between the dimensions. For example, while the "individual dimension" includes personal qualities and experiences, its interaction with the social dimension produces professional and personal identity as well as relationships. Similarly, the model locates organizational culture, formal networks, and communications channels at the interface between the social and the structural dimensions of leadership. The fifth dimension, development, refers to the dynamic nature of the leadership construct, which is constantly evolving and adapting over time. This model significantly enriches our initial premise of leadership as the interaction of "vision, influence and action" by clarifying and articulating the role of context, structure, and development, and by more clearly delineating the function of the social within leadership. This model views leadership through the lens of systems thinking, producing a much clearer understanding of the ways in which the nature, activity, and effects of leadership are produced beyond the individual or personal level.

One critical implication of a systemic approach is that prescriptive "one-size-fits-all" leadership development that are unlikely to be effective, and also unlikely to be well-received by academics (Bolden et al., 2012). It is against these understandings of complex, decentralized and dynamically adaptive institutional contexts, and multi-dimensional, contextual, and contingent leadership practice, that we are seeking to understand how educational leadership functions within universities and how best to support its growth and evolution. Approaches that draw on a more complex understanding of the interplay among these factors are rare, but can be effective in assisting faculty to develop better judgement, capacity to manage ambiguity and uncertainty, and preparedness for the many ways in which the numerous dynamic and interacting elements of such systems can create surprising outcomes (Flinn, 2011; Flinn & Mowles, 2014).

Leadership in Complex Systems: Distributed Models

Given the context explored above, it is not surprising that much of the leadership of educational change in universities takes place through what the literature often describes as "distributed" leadership, which disperses the powers and responsibilities of leadership amongst multiple individuals and groups at multiple levels of the university (see Bolden et al., 2009; Roxå & Mårtensson, 2013; Southwell & Morgan, 2009). Sometimes distributed leadership involves "devolved" power and responsibilities (and opportunities) conferred from a higher level of the hierarchy. Another form of descriptive leadership, described as "emergent" leadership, involves individuals taking on initiatives and influencing others based on their own vision and engagement within specific networks or contexts. Jones, Hadgraft,

Harvey, Lefoe & Ryland (2011) (cited in Jones et al., 2014, p. 13) describe distributed leadership as:

a leadership approach in which individuals who trust and respect each other's contributions collaborate together to achieve identifiable goals. It occurs as a result of an open culture within and across an institution. It is an approach in which reflective practice is an integral part of enabling action to be critiqued, challenged and developed through cycles of planning, action, reflection and re-planning. It happens most effectively when people at all levels engage in action, accepting leadership in their particular area of expertise. It needs resources that support and enable collaborative environments together with flexible approaches to space, time, and finances....Through shared and active engagement, distributed leadership can result in the development of leadership capacity to sustain improvements in teaching and learning.

Dialogue and relationship-building are the critical foundations of distributed leadership, providing emergent leaders with opportunities to share and develop strategies to successfully overcome obstacles. Professional social networks and collegial relationships “provide the opportunity for dialogue about leadership practice and experiences [that] are integral to the development of leadership capacity” (Parrish & Lefoe, 2008, p. 9). Parrish and Lefoe (2008) found it helpful to involve senior administrators and others with formal leadership positions in these discussions, as emergent leaders valued the opportunity to communicate and collaborate with them, and it helped them “forge relationships outside of the [emergent] leader’s sphere of practice” (p. 11). The impact of distributed leadership appears to be enhanced if “leadership roles and responsibilities are negotiated rather than delegated” (p. 2), enabling leaders to leverage their unique skills and knowledge, in keeping with the spirit of empowerment. Distributed leadership can function as a strategy for the development and grooming of leaders for formal leadership roles, and also provides a wider range of leadership options for leaders rotating out of formal leadership roles.

Although distributed leadership is generally viewed as a constructive alternative to managerialism, balancing the tensions between a perceived need for structure and accountability with an equally strongly perceived need for organic, people-focused approaches (Lumby, 2012), it is not without its challenges.

As Lumby (2012) argues, distributed leadership has become “a preferred, and in some cases virtually prescribed” approach to leadership in a variety of educational sectors (p. 6). As one emergent leader articulated it, “With distributive leadership, those people who may not sit in hierarchical positions of leadership have an opportunity to lead both upwards and sideways among their colleagues and through this mechanism have a real opportunity to influence others and more importantly influence those with power that comes from hierarchical positions of leadership” (Parrish & Lefoe, 2008, p. 2).

Many believe that, for academic contexts, distributed leadership is preferable to the more hierarchical

and authoritarian models typical of the corporate world (Gunn & Fish, 2013). Given a context that has traditionally valued collegiality and autonomy, the appeal of distributed leadership is obvious. The characteristics it favours – conversational influence, sociality, reciprocal followership, and the building of long-term relationships and strategies – are those often associated with democratic engagement.

Although distributed leadership is generally viewed as a constructive alternative to managerialism, balancing the tensions between a perceived need for structure and accountability with an equally strongly perceived need for organic, people-focused approaches (Lumby, 2012), it is not without its challenges. Bolden et al.'s (2012) study of individuals in varying roles at 12 institutions found that all institutions reported challenges in “achieving the appropriate balance between top-down, bottom-up and lateral processes of communication and influence. Bolden et al. (2008) identify responsiveness, transparency, convenience, and teamwork as benefits attributed to a distributed leadership approach, but also identify disadvantages including fragmentation, lack of role clarity (with people at different levels or in different parts of the university undertaking the same or congruent tasks), slow decision-making, and the risk of variation in individual capacity impacting outcomes of initiatives. Accounts of how leadership actually unfolds in universities tended to include descriptions of dislocation, disconnection, disengagement, and dysfunction, often related to a sense of lack of central vision and coordination of efforts. In effect, there “remains a dynamic tension between the need for collegiality and managerialism, individual autonomy and collective engagement, leadership of the discipline and the institution, academic versus administrative authority, informality and formality, inclusivity and professionalism, etc.” (Bolden et al., 2008, p. 60).

Ultimately, it may be more constructive to understand hierarchical and distributed models of leadership as complementary, rather than operating from the assumption that distributed models represent some kind of “progress” beyond hierarchical ones. The relationship between the two may be better understood as symbiotic (Bolden et al., 2008). Lumby (2012) argues that distributed leadership sits in the middle of the leadership spectrum, somewhere between “heroic, top-down” leadership at one end, and “organized anarchy” at the other (p. 6). Distributed leadership can be understood to function as part of a system of practice, involving both formal, hierarchical leadership and distributed, horizontal leadership, a model sometimes described as “hybrid” or “blended” leadership (Bolden et al., 2008). As Jones et al. (2014) put it, “Distributed leadership works in concert with traditional leadership to enable more people to participate in the process of leadership, as a means to improving decision making” (p. 14).

As Holt et al. (2010) demonstrate, this alternative perspective, which understands the university as an interdependent system of constantly evolving networks of relations and knowledge circulation, offers rich possibilities for educational and organizational change.

Supporting and Inspiring Distributed Leadership

Distributed leadership models may have significant implications both for leading change at universities and for the development of leaders. As Holt et al. (2010) demonstrate, this alternative perspective, which

understands the university as an interdependent system of constantly evolving networks of relations and knowledge circulation, offers rich possibilities for educational and organizational change: “Through a more purposeful and systematic approach to designing and implementing teaching and learning networks, centres can magnify their impact through the many agents (people and resources) that can be productively drawn into their many and varied relationships. Centres [for Teaching and Learning] can orchestrate resources across, up, and down the organization to best support teaching and learning enhancements, through such networking and the distributed leadership entailed in its operation” (p. 34). This notion of leadership and development has as much to do with creating environments that inspire interconnection and opportunities for mutual learning as it does with more direct interventions into practice. Middlehurst (cited Bryman, 2007) argued that leadership in complex, professional systems may require a minimalist approach, focused primarily on establishing priorities, early warning and communications systems, coordinating and balancing subsystems within the organization, and directing attention towards priority areas. Applied research in this field remains scant: there is much to do to formulate effective models of professional development and change management within complex systems (Trowler, Saunders, & Knight, 2003). What follows provides an illustrative sample of programmes and projects intended to support the growth of distributed leadership capacity.

The potential of distributed leadership is unlikely to be fulfilled if treated haphazardly. Parrish and Lefoe (2008) identified several factors critical to the success of the University of Wollongong’s Leadership Capacity Development Framework, including formal education and training regarding leadership that involved authentic and situated learning experiences, reflective practice, dialogue about leadership practices and experiences, and network-building activities. Throughout the process, emergent leaders benefited from strategic coaching and mentoring. Two key benefits of the programme were identified: 1) an enhanced self-image as a leader able to continue developing his or her leadership abilities; and 2) increased awareness of leadership – its meaning, associated behaviours, potentials, and pathways to develop leadership capacity. But these factors, they caution, would have been insufficient were it not for the individual drive of each “emergent leader” to develop his or her leadership capacity (p. 1). As MacBeath (2005) and Elmore (2000) argued, distributed leadership also depends on the support of university administrators for success, not only to fund initiatives but to implement new recommendations for policy and practice that emerge from informal leaders, and to empower them to engage in the long-term work involved in meaningful change.

An unusual model of educational leadership development emanating from the University of Hertfordshire resonates well with the theoretical framework we have established (Flinn, 2011; Flinn & Mowles, 2014). The University of Hertfordshire’s internal leadership development programme, called “Making Sense of Leading,” focuses on supporting leaders as they develop critical acumen and a self-questioning approach to the patterns they see in the complex systems in which they work. The programme actively supports their capacity to question assumptions and dominant models of leadership and organizational practice. Flinn (2011) argues that the intention is not to dismiss mainstream models, so much as to give leaders more room to manoeuvre and nuanced ways to parse their experience. The programme aims to provide leaders with the tools and skills to manage “the anxiety of acting in conditions of uncertainty, and to explore the politics of every day life in organizations” (Flinn, 2011), for example by making sense of context and understanding and identifying heuristics that may be limiting leaders’ understanding of

complex situations. As Flinn (2011) put it, the programme encourages

doubt, inquiry and reflexivity as a way of developing the capacity of leader-managers to manage in circumstances of high uncertainty and ideological and political contestation...[without] throwing everything up in the air and risking exclusion. It means learning how to navigate between the poles of absolute certainty and absolute doubt while persisting in seeing the world as more complex than it is portrayed in the dominant discourses (p. 166).

While this programme is a rare exception to standard approaches to leadership development, it bears further examination as we develop and further refine our own programming.

Embedded Educational Leadership Initiatives

Embedded educational leadership initiatives, where emergent leaders, whether in formal or informal leadership roles, are encouraged and supported in the development of teaching and learning improvement projects or research within their own departments or faculties, are a common vehicle for the growth of distributed leadership: those leading EELI-supported projects are working in a context of distributed leadership, even though many universities who run such initiatives may not be familiar with the term.

One model that many universities use to support emergent leaders is the provision of small grants schemes to support scholars in the development of content and context-dependent pedagogical knowledge (Gertler, 2003) and to inspire the growth of leadership capacity. Although there are many such programmes, a recent international survey suggests that most institutions have very little data regarding their actual outcomes (Boulos & Wright, 2011). Small grant programmes, often used to fund modest projects focused on SoTL have been recognized as a useful means “to promote innovation, increase motivation for teaching and provide an alternative to the ‘workshop formula’ for educational development and continuing professional development” (Morris & Fry, 2006, p. 44; see also Gosling, 2001; Gibbs, 2001; Gibbs, Holmes, & Segal, 2002). Small grants supporting pedagogical research projects can convey disproportionate benefits to teaching and learning (Dexter & Seden, 2012). Recently, the Staff and Educational Development Association (SEDA) published a collection of articles written by educational developers who have received small grants about how the grants impacted their work, providing numerous articulations of the benefits small grants may bestow, from multiple perspectives (Deepwell & Buckley, 2013).

Curchod (2014) reviewed the impact of the Teaching Innovation fund at the University of Lausanne, Switzerland. Established in 2007, the programme has two objectives: to help teachers develop applied research projects on teaching and learning and to foster institutional change with regard to teaching and learning. Between 2008 and 2014, 86 projects were undertaken, each funded for one year to a maximum of 30,000 CHF. 82% of the projects undertaken were still in operation. Approximately 35% of researchers indicated that their project had inspired others, noting numerous ways in which projects impacted students’ learning experience and their own skills as educators: the transferability of what was learned from the study to other contexts was less clear to participants. Participants noted the challenges of making projects sustainable as well as a lack of institutional visibility and coordination for the innovations achieved.

Chief among the benefits identified by participants in grant programmes, however, is the opportunity for networking and conversation about teaching and learning that arise from their involvement. As Morris and Fry (2006) report regarding their small grant programme, “Grant-holders are extremely positive about grant-holder meetings, valuing opportunities to hear about other projects, share ideas and information and develop links with staff who have a common interest in educational issues. Staff felt that the meetings had a role in motivating them to continue with work and meet deadlines” (p. 51). Small-grant programmes appear to be most effective when embedded within broader initiatives that connect grant-holders with participants in other development programmes, thus providing “more opportunity to create and to develop a community of practice” in which common expertise is developed, and “learning resources are embedded in the everyday practice of these communities. ‘Newcomers’ become ‘old-timers’ through processes of legitimate peripheral participation” (p. 52).

These findings support the potential of small grants research, given the right conditions, to function as opportunities for building significant networks for emergent educational leaders, and for those within significant networks to interact with one another in productive ways.

Nimmo and Littlejohn (2009) describe a granting scheme which funds thematically coordinated teaching and learning research projects, systematically involving the funded scholars with a multi-disciplinary cohort of colleague-researchers as well as pedagogy experts to create communities of practice. An element of the success of this model has been its treatment of faculty as autonomous learners for whom the salience of new information is critical. The authors use the lens of Paton and McCalman’s (2000) “model for perpetual change” which outlines four interlocking processes beginning with the identification of a trigger for change, the establishment of a vision for the future, a conversion layer which involves persuasion and recruitment, and a maintenance and renewal layer to solidify change. These are not seen as linear, but as interacting. The authors note that distributed leadership results from shared and not delegated experiences, a factor that supports their advocacy for the action-research model employed by the programme. Although research in the area is limited, these findings support the potential of small grants research, given the right conditions, to function as opportunities for building significant networks for emergent educational leaders, and for those within significant networks to interact with one another in productive ways.

Gunn and Fish (2013) identify some of these necessary conditions, including mainstreaming promising initiatives by embedding and expanding them within the institution. This, in turn, requires that four conditions be met: 1) competent leadership and management at all levels, involving clear and explicit goals, a shared vision, consistent leadership, collegiality, and commitment to the project’s success; 2) cultural readiness for change, which involves recognition of a need to change, and the ability to actually implement the change; 3) ongoing access to human, financial, and infrastructure resources; and 4) comprehensive funding, planning, communication and quality assurance systems. A culture of teaching excellence further requires formal support and recognition for scholarly teaching and SoTL initiatives (Brew & Ginns, 2008; Potter & Kustra, 2011); recognized and valued inter-professional support to facilitate teaching excellence (Bluteau & Krumins, 2008); and support for “a range of significant

social networks or communities of practice which interact through enforced intersections within the institution” to encourage development of scholarly, excellent teachers (Potter & Kustra, 2011).

Further evidence of the potential value of embedded educational leadership initiatives emerges from a recent Organization for Economic Cooperation and Development (OECD) study (Hénard & Roseveare, 2012), which identifies policy levers that significantly impact teaching quality in universities, demonstrating numerous critical entry points consistent both with the benefits of distributed leadership, and with the potential of well-designed, co-ordinated, and supported embedded educational leadership initiatives. This study identified the importance of the following to the improvement of teaching quality in universities:

- Encouragement of innovation as a driver for change;
- Systematically scaling up innovations and ensuring that they become common practice that require systematic evaluation and management;
- Understanding institutions as learning organizations;
- Promotion of a climate of continuous reflection;
- Consistently collaborative approach to quality improvements where we can learn from successes and mistakes;
- Encouragement of communication networks across faculty and disciplines;
- Use of formative assessment, and cross-functional involvement in the design and implementation of innovative practice; and
- Integration of support for innovation into institutional policy, including monitoring the consistency between initiatives and the institution’s overall strategic plan, frameworks that foster innovation in teaching while managing risks, the provision of knowledge sharing platforms and dissemination opportunities, the extension of successful practices, and the inclusion of teaching and learning innovation in quality assurance systems and personnel decision-making.

Summary

This review of literature has articulated a model of leadership grounded in the real practices of institutions, demonstrating that to a considerable degree the forms of leadership and influence that drive and limit change in universities extend beyond the formal hierarchies of universities, though the formal hierarchies are also necessary elements of the system. It has further demonstrated that universities are complex adaptive systems and that knowledge circulates within universities through diverse, sometimes interdependent networks of relations through which meanings are created. These networks are not necessarily discipline-specific and are not predictable based on formal organizational structures. Taken together, the interaction of these networks (which in systems parlance are described as “sub-systems”) constitutes the dynamic, complex, and adaptive system that is the university (See Figure 2).

Leadership functions in part as an element of academic identity, with individuals drawing influence from their academic practice, their positions within networks, and their capacity to work across boundaries, but

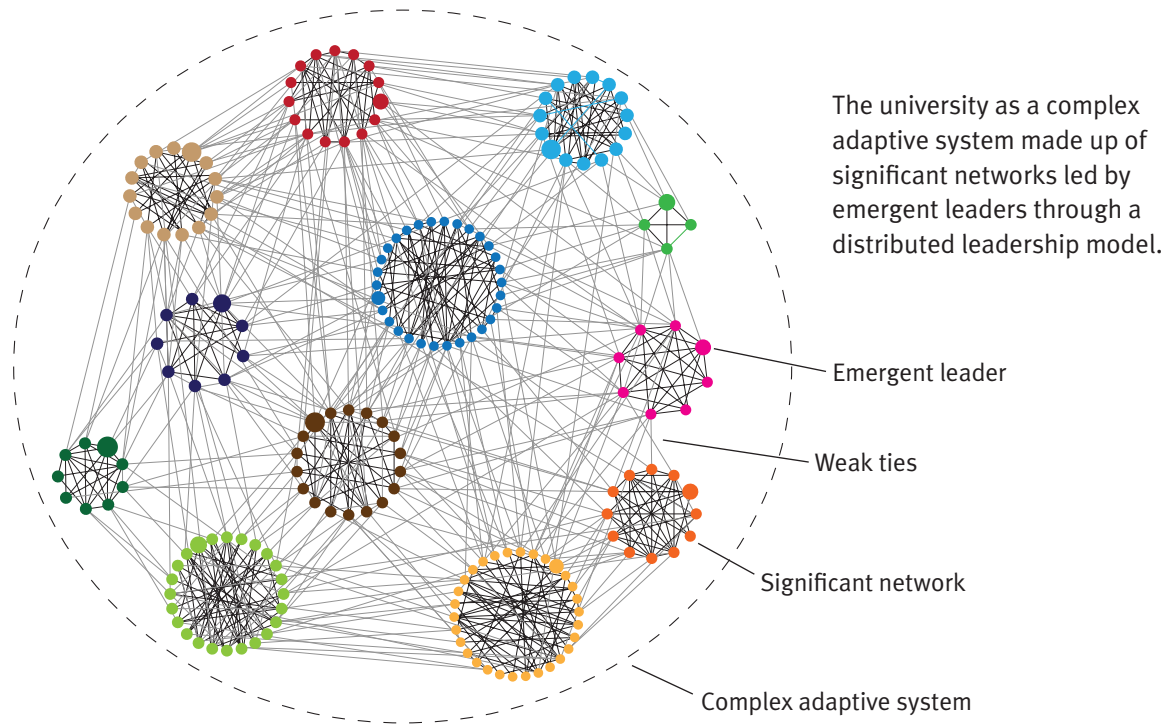


Figure 2: The University as a Complex Adaptive System

also from their capacity to defend academic autonomy and disciplinary and academic values. Leadership is contingent and contextually produced, and leaders operate across a range of tensions, models, and contrasting practices in order to establish a vision, influence others, and enact change. There is a dynamic interplay among five factors, or dimensions, that shape how leadership occurs at any given moment: the individual, the social, the structural, the contextual, and the developmental. It is important to understand that leadership—its instantiations, practice, and effects, are produced systemically, and not solely through the actions or choices of a given individual. The notion of distributed leadership, which understands leadership to function in a dispersed but co-ordinated fashion across many different people in many different roles, has increasingly become a focus among those seeking to understand how effective leadership functions in higher education. However, while distributed leadership is often viewed as a preferred approach, there is considerable evidence that producing, supporting and co-ordinating distributed leadership requires a highly intentional, critically inquiring, and diversity supporting institutional approach.

Leadership support and change management are critical challenges for institutions. Approaches that acknowledge the complex systemic nature of the organization are rare, and ways to support and “lead the leaders” are not yet well understood. There are, however, a number of promising approaches emerging in the UK and Australian contexts: embedded educational leadership initiatives, though requiring a more coordinated and well conceptualized model than is often the case, appear to be consistent with what is known about the fostering of effective distributed leadership in organizations. At the same time, there is evidence that effective management of distributed leadership remains challenging generally, and that finding and maintaining an effective balance between emergent practice and managed coordination within a dynamic and evolving system is not a simple task.

Environmental Scan: Initiatives at the University of Windsor

The purpose of this multi-faceted scan was to evaluate the current operation and outcomes of embedded educational leadership initiatives at the University of Windsor in order to contribute to the establishment of preliminary mechanisms that will help us to (1) identify and track the kinds of specific gains that the faculty-led initiatives are producing; (2) assess whether EELIs are extending leadership capacity at the University; and (3) establish plans for the better support, coordination, and expansion of both EELIs and embedded leadership capacity at the University of Windsor.

The environmental scan included a campus-wide review of current and recent initiatives, extended dialogue with identified educational leaders on campus occupying a variety of roles in a range of areas, and a more in-depth review of one well-established programme, the Centred on Learning Innovation Fund, and one maturing programme, the faculty-led Peer Collaboration Network. It also includes a description of the emerging Teaching Leadership Chairs programme, as next steps will involve the engagement of the inaugural cohort of TLCs with the findings of this study in order to explore their potential roles in further stages of the initiative.

► **Introductory Programme Descriptions**

Centred on Learning Innovation Fund (CLIF)

The purpose of the Centred on Learning Innovation Fund grant is to stimulate the development, implementation, and assessment of innovative teaching and learning. CLIF awards up to \$2,500 to successful applicants annually for novel teaching and learning projects. Since its launch in 2007, the CTL has awarded 52 CLIF grants to faculty members and staff from across campus. Proposal topics have included the development of on-line, hybrid, distance and continuing education courses, curriculum development and innovation, integrated skills development, community building, peer learning, mentoring, learning support, experiential learning, and innovative uses of technologies in teaching.

Peer Collaboration Network (PCN)

In 2011, a team of award-winning instructors at the University of Windsor began to explore ways to

make a serious contribution to enhancing the overall quality of teaching on campus. Their goal was to develop a faculty-driven network of people interested in exploring new ways to foster excellent learning and to improve their teaching. The team successfully launched the first stage of the Peer Collaboration Network in Winter 2012. Participating instructors visit one another's classes, review each other's teaching materials, and help each other to reflect on and improve their teaching. This kind of peer review, or peer consultation, as it is sometimes called, is an internationally recognized and well-established strategy for enhancing the quality of teaching in higher education and fostering collegial dialogue about pedagogy and curriculum (Chism, 2007; Cohen & McKeachie, 1980; DeZure, 1999; Keig & Waggoner, 1994). It is also a great way to get to know other faculty members with a passion for teaching and to explore new and different ways to approach the many challenges of university teaching.

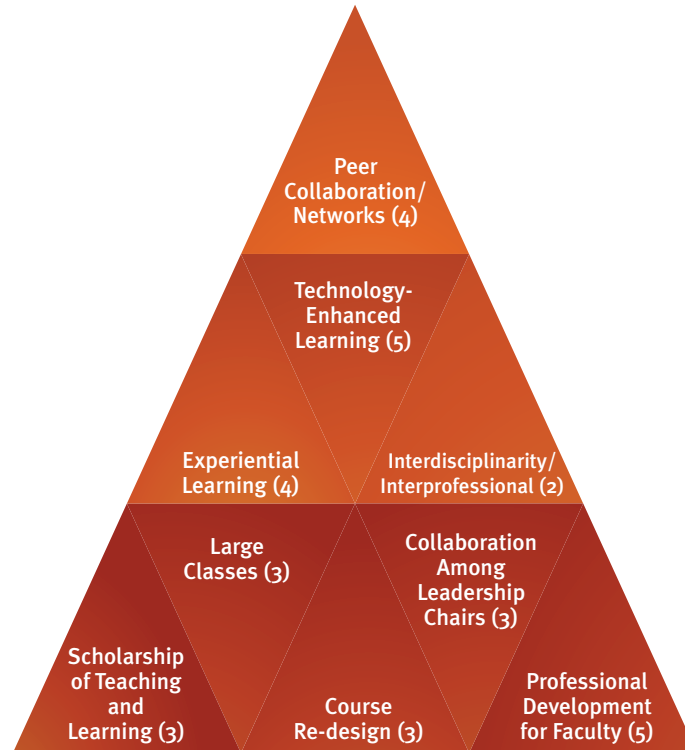
Teaching Leadership Chairs (TLCs)

Teaching Leadership Chairs are full-time faculty members who devote much of their service and, in some cases, elements of their research activities, to leading and supporting teaching and curricular initiatives in their faculties and, at times, across campus. They are typically mid-career and senior faculty members who take up the position for a single term of three or four years. The first cohort of seven TLCs was selected in early 2014. Each oversees an annual budget of \$15,000. Chairs fulfill such roles as:

- expanding the pace of pedagogical innovation;
- collaborating with the Office of Open Learning to develop online methodologies;
- publicizing teaching and learning enhancement opportunities on campus and beyond;
- establishing professional development programme initiatives on campus;
- stimulating teaching improvement among GAs and TAs;
- leading University of Windsor delegations at national and international conferences on teaching and learning in higher education; and
- promoting research and publication projects in the area of SoTL.

Selection was determined through an application process that included a proposed three-year programme of initiatives and research. These submissions identified a strong degree of overlap among the chairs' interests and concerns, as identified in Figure 3. Nine overlapping themes have been identified, with the number of TLCs identifying each theme recorded in brackets after the theme.

Figure 3: Overlapping Project Elements in Successful Teaching Leadership Chair Proposals



► Funded Educational Initiatives at the University of Windsor: An Overview

As part of this project, the team gathered a list of all internally-funded educational initiatives supported between 2007 and 2013 through five key funding schemes at the University of Windsor. These funds were:

- The Strategic Priority Fund (SPF);
- The Centred on Learning Innovation Fund (CLIF);
- The Undergraduate Research Experience Grant;
- Open and Online Learning Strategic Development Grants; and
- The Teaching Leadership Chairs Initiative (TLC).

In all, these granting schemes funded 132 educational projects during this time period, totaling just over \$6 million. The majority of these funds have been distributed through the University's Strategic Priority Fund, whose role is to "support the strategic allocation of resources and to provide dedicated funding to support the delivery of the University's Strategic Plan" in order to "fund initiatives that will allow the University to change and enhance its operations to meet its strategic objectives" (<http://www1.uwindsor.ca/spf/>). Because of this mandate, a portion of SPF projects is not strictly educational in nature, but may pertain, for example, to human resource development or facilities initiatives. Only projects with an educational focus are included in this scan.

The SPF is administered centrally through the office of the Provost and Vice-President, Academic:

applications are ranked by their respective deans upon submission and granting decisions are determined by a committee of faculty and senior administrators. Most projects receive one-time (though often multi-year) funding, though occasionally a highly strategic initiative is supported by base funding. Amounts dispersed vary considerably (ranging from \$13,000 to \$800,000 (over five years)). Two of the granting schemes listed above, the Undergraduate Research Experience Grant and the Teaching Leadership Chairs Initiative, were funded through the SPF. The Undergraduate Research Experience Grant, however, now receives base funding through the Office of the Vice-President, Research and Innovation. CLIF grants and the Open and Online Learning Strategic Development Grants are administered by the CTL and the Office of Open Learning respectively, both using a peer-review decision-making process. TLCs are coordinated through the Office of the Vice-Provost, Teaching and Learning, and also employed a peer-review selection model. Table 5 provides an overview of grant allocations by faculty.

Table 5: Internal Educational Leadership Grant Allocations by Faculty

FACULTY	TOTAL FUNDED INITIATIVES	SPF ESTABLISHED 2010	CLIF ESTABLISHED 2007	UNDERGRADUATE RESEARCH EXPERIENCE GRANT ESTABLISHED 2013	OPEN AND ONLINE LEARNING STRATEGIC DEVELOPMENT GRANTS ESTABLISHED 2013	TLCs ESTABLISHED 2014
Faculty of Arts, Humanities, and Social Sciences	42	13	20	3	5	1
Faculty of Science	19	7	7	2	2	1
Faculty of Engineering	15	9	5			1
Faculty of Education	14	4	8		1	1
Odette School of Business	11	3	4	1	2	1
Faculty of Nursing	7	2	4			1
Faculty of Law	5	2	2		1	
Centre for Interfaculty Programmes	4	4				
Faculty of Human Kinetics	4	3				1
Vice-Provost, Teaching and Learning	4	4				
Faculty of Graduate Studies	2	2				
Leddy Library	3	2	1			

FACULTY	TOTAL FUNDED INITIATIVES	SPF ESTABLISHED 2010	CLIF ESTABLISHED 2007	UNDERGRADUATE RESEARCH EXPERIENCE GRANT ESTABLISHED 2013	OPEN AND ONLINE LEARNING STRATEGIC DEVELOPMENT GRANTS ESTABLISHED 2013	TLCs ESTABLISHED 2014
Vice-Provost, Students	2	1	1			
Total	132	56	52	6	11	7
Total Allocation to Date	\$6.2 million	\$5.8 million	\$168,000	\$20,000	\$125,000	\$105,000

Table 6 provides a summary of the themes of funded projects in each faculty, organized by frequency of theme, with most frequent themes appearing earlier.

Table 6: Themes of Funded Initiatives by Faculty

FACULTY	PROJECT THEMES
Faculty of Arts, Humanities, and Social Sciences	Programme and course development; first-year experience; online learning and e-portfolio use; experiential learning; mentorship; accessibility
Faculty of Science	Student support; online and technology-enhanced learning; first-year experience; course and programme development; experiential learning; materials development, professional development
Engineering	Curriculum and programme development; assessment; community outreach; student engagement
Education	Internationalization; diversity; online and technology enhanced learning; peer mentorship; first-year experience
Odette School of Business	Course and programme development; experiential learning; technology-enhanced learning; first-year experience
Faculty of Nursing	Experiential learning; assessment; programme development including interdisciplinary programmes; online and technology-enhanced learning;
Faculty of Law	Experiential learning; course development; interdisciplinary/inter-professional practice
Centre for Interfaculty Programmes	Programme and course development; experiential learning; technology-enhanced learning, student experience
Faculty of Human Kinetics	Experiential learning; internationalization
Vice-Provost, Teaching and Learning	Educational leadership initiatives; online learning
Faculty of Graduate Studies	Professional development for graduate students
Leddy Library	Technology-enhanced learning; international
Vice-Provost, Students	Experiential learning; international

In Tables 5 and 6, projects were sorted according to the principal proponent faculty. However, 27 of the projects are formally identified as cross-faculty collaborations, or involved formally-named partners from multiple faculties, practices encouraged in particular by the criteria for the CLIF and SPF funding schemes. Many others involved more informal collaborative partnerships. Projects reviewed involved up to six co-operating faculties. Cross-campus units such as offices reporting to the Vice-Provost, Teaching and Learning, and the Vice-Provost, Students, were common collaborating units, though individual faculties such as Faculty of Arts, Humanities and Social Sciences and the Faculty of Education are also very active collaborators. A full listing of all projects reviewed can be found in Appendix A.

► Project Reviews

Leadership Dialogue: The University of Windsor Educational Leadership Forum

As an element of this project, the project team established the University of Windsor's Educational Leadership Forum and hosted the inaugural event, a highly-interactive, day-long event for instructors, faculty, and staff who have taken leadership roles in initiatives or projects – large or small – to enhance teaching or student learning at the University of Windsor. The Forum, which will take place annually, is an opportunity for leaders to meet and discuss their work with others taking on similar challenges, and also for those who support embedded educational leaders on campus to learn more about what these leaders need: what might help to make this kind of leadership easier, more successful, more stimulating, and more sustainable. Materials developed for the event were formulated based on focus groups held with teaching and learning staff regarding the nature of educational leadership as well as research literature. Core goals of the initial Forum were to explore participant:

- views of the characteristics and scope of educational leadership;
- motivators, roles, organizational models, outcomes, and the conditions for success of projects they are undertaking (or have undertaken);
- experience of obstacles and challenges in attempting to move initiatives forward at the University;
- perspectives on the “fit” between existing programmes and services and their needs, and other services that might be of assistance; and
- views of what kinds of professional development would help them to grow as educational leaders.

Forty-five faculty, sessional instructors, educational developers, learning technologists, and staff attended the Forum.

Perceptions of the Characteristics of Educational Leaders

Participants began the day by reflecting on the question, “What are the characteristics of educational leaders you know?” Answers varied, but ultimately clustered around five themes:

1. Interpersonal abilities and predisposition

Interpersonal skills and a consistent awareness of others' needs was the most commonly identified theme in the responses. Roughly 65% of responses identified a skill or attitude related to the ability to work with others, in particular skill in facilitation and collaboration. Educational leaders were described as connectors, good listeners, supportive and generous in helping others reach their goals, able to "help others work together in ways that new ideas come from the group." They were compared to coaches who help others prepare for the game. They are "mindful of others," and "do not use directive power, but suggestive, persuasive power." Bringing people together, "reaching out," and working across boundaries were identified as important outcomes of this skill set, but can also be seen as a question of value: as one individual put it, leaders value "community process and product."

Many of these descriptors focused on "knowing when" to give or take power, to quit, to strike, to stop, or knowing "what comes next." This seems to resonate with ways that leaders negotiate the tensions between types of leadership (transformational/transactional; formal/informal; heroic/servant), shifting roles as necessary across contexts and situations.

2. Capacity to evolve and adapt

The second most common theme to emerge from the responses was the ability to adapt, evolve, or embrace change. Several participants identified educational leaders as "resilient" – capable of bouncing back from setbacks and learning from those setbacks. Leaders are "committed to learning and improving," "able to absorb poor outcomes and minor disappointments," and embrace change: they are "willing to continually improve and engage in self-development. An educational leader evolves in the way he/she sees the world." Identification of scholarliness, and the importance of being knowledgeable and current as a component of educational leadership are included in this category, although it might be viewed, in the context of academic culture, as an element of integrity as well. About 35% of responses identified characteristics consistent with this theme.

3. Integrity

About 28% of responses referred to integrity, honesty, or principles as characteristics of educational leaders. They "set standards for others to follow," act as role models, take responsibility, and function consistently from principles or an evolved theoretical framework. The capacity to act with transparency, and to "explain unpopular decisions" with honesty, reflect the challenges of functioning with integrity in complex systems involving agents with diverse interests. Further, leaders were frequently associated with a capacity for humility or modesty: as one participant put it in describing a specific educational leader: "Ego has been surgically removed!"

4. Strategic acumen

Although they did not necessarily use the word "strategic," participants described a number of skills and abilities consistent with strategic acumen, such as knowing "when to give power and when to take

it back,” grantsmanship, and vision, and capacity to identify new opportunities. Interestingly, many of these descriptors focused on “knowing when” to give or take power, to quit, to strike, to stop, or knowing “what comes next.” This seems to resonate with ways that leaders negotiate the tensions between types of leadership (transformational/transactional; formal/informal; heroic/servant), shifting roles as necessary across contexts and situations. Leaders are able to “step up when needed, and step back when appropriate:” such responses reflect the high degree of judgement required of leaders. Strategic acumen also reflects the necessity of integrating the personal, social, structural, and contextual, without losing sight of the vision. As one participant put it, a leader “accepts and understands the challenge and constraints, but doesn’t let them define or block the work – adapts and accommodates instead.” Roughly 30% of responses related to characteristics connected with this theme.

5. Personal Agency and Passion

Participants described leaders as having an inner drive to act on a vision, but also the capacity to inspire others through their passion. Leaders believe that they can make change happen, and “challenge the status quo.” They “spark interest in others, whether you agree with them or not.” A leader’s “commitment is seen and felt by those around him/her.” They are fearless and bold, and they believe that they can make change occur. Descriptors related to energy and endurance were also categorized here. Approximately 16% of respondents identified a characteristic in this category.

Perceptions of the Scope of Educational Leadership

Participants were also asked to reflect on what “counts” as educational leadership, a question which prompted a number of them to note that this type of leadership often occurs outside of formal, administrative roles, and that it can take forms quite different from charismatic or heroic leadership. Participants identified a range of activities as typical of leaders, such as planning, organizing others, empowering or advocating for others, developing innovation, following through, understanding context, sharing information, building relationships with others, accessing resources, and also, knowing when to step back: to lead by following. A few also noted blind spots leaders could have (the third prompt which many did not reach): many of those who responded identified a lack of self-knowledge – not understanding one’s limitations, not being open to critical feedback, and letting ego guide practice.

Exploring Leaders’ Current Initiatives

Participants were asked to describe their current projects, many of which involved peer mentorship initiatives, undergraduate research initiatives, programme or curriculum renewal, technology-enhanced learning, SoTL, and inclusive practice. The dialogue was focused around four key elements: Motivators, Roles and Organizational Models, Outcomes, and Conditions for Success.

Motivators

Educational leaders frequently **identified students, and student needs**, as critical motivators for their change initiatives. Often there was a sense that students’ ability was undervalued, resulting in a gap in opportunities for them: “It puzzled me for a long time that faculty was not aware of the talented students in the class. They don’t squeal; they’re not squeaky wheels. They do their business and they pass. Later

we see them, 40 A+'s and you had that student in your class, and you never talked to them. So much talent has been wasted here as a student, and the faculty lost it too." In some cases educational leaders connected the need to improve students' experiences or learning with issues of social justice. Ultimately, there was simply a gap between what was happening, and what the educational leader envisioned should be happening for students, and a sense that it was possible to close that gap: a recognition that "no one else is doing what needs to be done – finding what has slipped between the cracks." In many cases, as in these two, it was clear that leaders somehow viewed the situation differently from others who accept the status quo, either because those others do not perceive it as problematic, or perhaps because they do not see it as changeable.

"No one else is doing what needs to be done – finding what has slipped between the cracks."

Forum Participant

Many of the educational leaders are also motivated **by a desire to learn and evolve as teachers**, to keep up with evolving technologies, social practices, or perspectives, to do more, be more, or provide more. As one participant put it "I only learn by teaching so that forces me to learn new things....In terms of personal motivation, I was motivated to keep ahead of the curve of the students." Educational leaders want to be good at what they do, and want the products of what they do to be of high quality: thoughtful course designs, effective programmes, engaging learning. A connected theme in the responses was the attraction of trying new things, being an innovator, and doing things that no one else is doing yet.

Educational leaders often also had **more pragmatic reasons for pursuing innovation**. In one case, while sincerely committed to improving the student learning experience, a particular leader was also hoping that the initiative's success might lead to a permanent position within the organization. In another, tenured faculty began to work more systematically to create strong undergraduate research culture partially to benefit students, but also to address the need for more skilled assistants for labs and to identify and attract top students into the department's graduate programmes. Improving student retention, enhancing scholarship opportunities, and attracting funding were all identified motivators as well.

Finally, many educational leaders **identified culture change and creating a positive network of educational leaders** as elements that motivated their desire to pursue educational innovation. Innovation was seen as an opportunity to "learn from the best practices across campus." This was not necessarily an initial motivation for a project, but appeared to emerge as the innovation evolves: working with others becomes a reason to keep on with projects, expand them, or continue on to new ones.

It is worth noting that no participants identified institutional strategic priorities as an element of the motivation for their leadership initiatives. Generally speaking, the motivations tended to be local or value-based: an identified gap in departmental services, or empathy with student needs, or issues such as access, equity, or social justice.

Roles and organizational models

Participants identified the following roles as important to their initiatives:

- Researcher
- Recruiter
- Administrator
- Supervisor
- Mentor
- Developer
- Consultant
- Facilitator
- Instructor
- Coordinator
- Participant
- Collaborator
- Peer/student mentor
- Students and especially graduate assistants and research assistants
- Leader
- Grant writer
- Team leader
- Experimenter

Overall, the emphasis in the discussion appeared to be on inclusive, organic, collaborative approaches to team organization, with considerable emphasis placed on leaders as learners and on the importance of being guided by and motivated by students as an element of practice. All the same, strong leadership was identified as a critical factor. Interdisciplinarity and working across various boundaries, both of which provide multiple perspectives, as well as the deliberate seeking out of people with skills complementary to one's own, were both perceived as highly beneficial to effective teams. Given that engagement in these initiatives is for the most part voluntary, participants noted that knowing how to engage with people in different roles, and with different concerns, is a critical skill. Many also noted the importance of well-defined roles, and clarity with regard to expectations.

One important "role" identified by participants in many groups was, quite simply, "me."

Participants also noted that there are many who play important roles in initiatives who may not be on the core team: expert consultants (e.g., from information technology, centres for teaching and learning, the office of open learning, the registrar's office); administrators, who provide strategic support in many different ways; and support staff. Some projects also involved collaboration with external organizations, the government, or community members, all of whom played critical roles in terms of material resources, the various ways of formalizing what students are learning or gaining from an initiative, and influence. So, while informal and organic relationship building is prioritized explicitly, the importance of the support of those in more formal roles is also acknowledged.

Participants often demonstrated an awareness that without them, these projects would not occur: one important “role” identified by participants in many groups was, quite simply, “me.” Participants’ sense of agency – and of the dependence of projects on their actions and choices – was palpable. These are, as Bolden, Petrov, and Gosling (2009) would put it, emergent leaders: their responsibilities have evolved from their own sense of mission, of agency, and of the possibilities of the contexts in which they find themselves.

One participant described the students’ experience as profound “cultural learning” where students learned about the world of education and academia – how to negotiate it, what matters in it, and how to thrive in it, in very practical ways.

Outcomes

Not surprisingly, participant descriptions of the outcomes of successful projects often focused on student outcomes. These might be quite concrete evidence of improved student success, higher retention rates, improved grades, or increased enrolment. But often the descriptions were somewhat more difficult to quantify: a sense of increased student leadership or student confidence, and an increase of what one participant described as the “community feel” in the programmes involved. It is worth noting that these less quantifiable outcomes may often be highly motivating for leaders: models of assessment that focus on what is quantifiable alone may be counter-productive in terms of fostering sustained engagement. Improvements might also be seen in terms of programme growth or sustainability: in some cases the initial impetus of a project can be a sense that a programme is faltering, fragile, or drifting from its original goals.

Students are engaged in these kinds of projects at many levels, often as students participating in courses where initiatives are undertaken, and frequently in those cases with an ongoing process of seeking their feedback as the initiative unfolds. However, they may be involved in much deeper ways, as team leaders, peer mentors, research assistants, project coordinators, or graduate assistants. One participant described the students’ experience as profound “cultural learning” where students learned about the world of education and academia – how to negotiate it, what matters in it, and how to thrive in it, in very practical ways. The impact of embedded educational leadership on student learning is, so far, a largely unresearched area, which may be of considerable interest in terms of identifying approaches that optimize student opportunity in conjunction with project success. In any case, participants reported that students developed hirable skills and became stronger, more confident leaders through their involvement with these projects: student input was also often very important to the project success.

Participants also reported that in many cases these projects could result in programming and courses that “made more sense,” where both students and faculty learning and teaching experiences improved. Successful initiatives could lead to increased collaboration, greater mutual agreement, and better rationales for decisions, programmes, and practices within departments. Successful initiatives sometimes also contributed to the growth of more supportive, risk-friendly environments. Success could lead to the “erosion of opposition or resistance.”

Leaders also noted personal and professional growth as outcome of these initiatives. This included growth in confidence, expertise, and influence, as well as the growth of “relationships outside the typical realm.” A number of participants noted that they had published or presented work emerging from these initiatives: for many of these participants, presenting at conferences specifically devoted to teaching and learning in higher education was a boundary-crossing experience that put them in contact with the broader national and international networks of educational leadership in universities. This has been of profound value to many educational leaders, and in some cases has provided them with a national stage for leadership.

A critical factor identified here was breadth of network and knowing who to call for what: getting traction means “knowing the terrain” at the institutional level, beyond the boundaries of their own departments or disciplinary contexts.

Conditions for success

As indicated in the literature review, multiple dimensions – the individual, social, structural, contextual, and developmental -- impact how leadership can and does function (Bolden, Petrov, & Gosling, 2008; see Figure 1). Participant discussion of the conditions that enabled the success of new initiatives reflected the interplay of these dimensions. Leaders described the critical importance of context – but also of knowing how to capitalize on context: it was important to “know what context you can or cannot take a risk” and “how behaviours are appropriate to different contexts.”

The most common responses in this category centred on support and buy-in – material, psychological, social, and ideological. This is not surprising, given the consensus-driven and influence-based nature of distributed leadership. Still, it is a construct that would bear considerably greater investigation. As Mintzberg (1998) put it, the critical role of covert leadership – how leaders bring largely independent and professional people on board beyond the public moments of formal decision-making – is very poorly understood and also fundamental to embedded educational leadership. The notion of support is both broad and multi-faceted: participants identified the critical importance of support from those in formal leadership roles, especially those with budgetary decision-making power; from influential figures in their departments; from students; and from gatekeeper staff such as technical services staff without whom (or with whose reluctant participation) many initiatives simply fail to thrive. A critical factor identified here was breadth of network and knowing who to call for what: getting traction means “knowing the terrain” at the institutional level, beyond the boundaries of their own departments or disciplinary contexts, a factor that many participants identified as one they would like to further develop.

Buy-in depends on a shared vision. Leaders seemed to be aware that shared vision had to be tended to over time. Ongoing feedback was identified as an important condition for success, as well as keeping an open mind. Change had to be viewed as a continuum: strategic approaches that enabled gradual involvement and that demonstrated the importance of initiatives were identified, as was the quite explicit acknowledgment that “trial and error” is part of change, with an emphasis on error. It was

acknowledged that acceptance of change was differential: resistance was to be expected and collegiality was identified as critical to working through those tensions. Structure and organization appeared also to be part of the development of sustainable long-term approaches, gathering feedback, identifying and solving problems, and quite simply, getting things done.

Some internal or individual factors were also seen as critical conditions for success. In particular, flexibility and open-mindedness were regularly identified, although often in balance with the capacity to maintain focus on the larger goals of the project: this is consistent with what is known of how change practice functions in complex systems. Because each intervention in a system results in dynamic change in that system and among the agents in the system, those leading change must constantly re-adjust plans to account for adaptations (Heath & Heath, 2010; Sterman, 2006; Trowler, Saunders, & Knight, 2003). Participants acknowledged that this is a tricky balance: knowing how to be “relentless” and exhibiting “fearlessness” must in some way be balanced with “open-mindedness” and respect for “the dignity of the individual.” As noted in the definitions of strong leaders, a critical factor here appears to be “knowing when:” the capacity to make informed judgements in situations of considerable social, psychological, and structural complexity. Self-awareness and capacity for reflection, both identified by participants, are critical to this ability. As always, understanding the nature of the individual characteristics has also to be seen in context: feedback is important, as is openness to feedback. The willingness to take risks is important, but so is an environment where taking risks seems possible. The individual and the system are symbiotic.

It is not surprising that resources were repeatedly identified as an important condition of success: in particular having enough time, funding, and effective and committed partners, including external support. Time was the resource most frequently sought.








Obstacles and Challenges in Pursuing Educational Leadership

The third segment of the day was devoted to exploring leadership challenges participants have faced, focusing on five core themes:

- Policies, rules, and bureaucracies;
- Resources and support;
- Sustainability and expansion of projects;
- Buy-in and proof of impact; and
- Personal, professional, and political issues.

During discussion, participants were also asked to identify the severity of the challenges they raised by locating them on a continuum from minimal (gnats) to severe (killer bees). The scale is outlined in Table 7, along with the nature and spectrum of participant responses.

Table 7: Participant-Identified Obstacles and Challenges

RESPONSE	NUMBER OF RESPONSES	SPECTRUM OF RESPONSES						
		GNAT 	BLACK FLY 	DEER FLY 	WASP 	FIRE ANT 	BLACK WIDOW 	KILLER BEE 
poor internal communications (too much AND too little)	13							
bureaucracy and policies	12							
negativity, personal agendas, blaming, resentment of educational initiatives	11							
apathy/resistance to change	11							
lack of resources (space, people, funding, time)	11							
lack of reward and recognition for leadership/lack of PTR recognition	10							
technology problems, or lack of technological support	9							
more responsibilities with nothing taken off plate/exploitation	8							
lack of feedback/data/ agreed standards for measuring impact	8							
loss of or lack of decision making power or agency	8							
class structures/ disciplinary silos at universities, which make it hard to form egalitarian collaborative teams and get the most of all, empower people broadly	3							

Many participants noted that the effects were cumulative: one group added a “parasites” section to their chart, defining these as “bugs that eat you, and you don’t feel it,” while a participant in another group noted that “cumulative things are black widows.” Among the identified parasites were bureaucracy

and policy that lacked a sense of the big picture, the ascendancy of managerialism and decline in belief in collegial governance, and a constant sense of reacting from crisis mode – an approach identified as “the silent killer.”

Responses reflected some fundamental tensions identified elsewhere in the literature on distributed leadership (Bolden et al., 2008). While for many there was a deeply held sense of decline in collegial decision making, there was a concomitant sense that faculty are asked to attend too many meetings, that “bureaucracy and the many levels of committees are black widows.” These

are not necessarily contradictory, of course. It may reflect a sense that meaningful decision-making has been deflected from the collegial system, leaving it with committee-heavy structures, but an increasingly limited role in policy making. It may further reflect a culture that needs better capacity for decision making and better information with which to make those decisions: this is an area that requires further study. Overall, however, one participant summed up the situation thus: “I wish I had a pill to put in the water system so that everyone in the institution knew they were part of something bigger than themselves.” While distributed leadership has considerable power to effect important change at the local level, participant statements do reflect the findings of Bolden et al. (2008), which indicated difficulties in achieving an appropriate balance between top-down, bottom-up and lateral processes of communication and influence, as well as tensions between collegiality and managerialism, autonomy and collective engagement, and academic and administrative authority.

“I wish I had a pill to put in the water system so that everyone in the institution knew they were part of something bigger than themselves.”

Forum Participant

Jointly Identified Show Stoppers

In the session debrief, participants were asked to identify ‘show stoppers:’ problems that tended to bring initiatives to a definitive, or cumulative, halt. The following were identified:

- Commodification of education
- Culture being resistant to change
- The teaching and evaluation reward structures
- Individuals acting in bad faith
- Workload and stress resulting from it
- Who decides what we have to do?
- Fragmentation of communication – too much, not enough
- Fragmentation of community and collegiality
- Disconnect between the intent of policy and how it is implemented
- Buy-in and proof of impact

When asked to identify solutions they use to combat these challenges, participants’ responses were instructive. Just over half related to building, extending, and maintaining networks, specifically for the

When asked to identify solutions they use to combat these challenges, participants' responses were instructive. Just over half related to building, extending, and maintaining networks, specifically for the circulation of knowledge, to identify people with common goals or interests, to create opportunities for influence, to share labour, and to create alliances.

circulation of knowledge, to identify people with common goals or interests, to create opportunities for influence, to share labour, and to create alliances. These responses reflected both utility and emotional connections, distinct from the necessary relations of disciplinary proximity: these are communities of trust and common interest: Roxå & Mårtensson's "significant networks" in action. They were described also as nourishing or supportive, involving kindness, empathy, and knowing one another. Participants also identified the development of assertiveness, strategic acumen, and the insight to parse complex situations with varying interests, as important contributions to overcoming the primarily contextual challenges they identified within the University.

Current Programmes

Many participants were very supportive of the CTL and the myriad ways it supports faculty initiatives through consultation and other more flexible and informal approaches. Formalized **existing programme offerings, on the other hand, appeared from the participant point of view not to be a particularly strong match for their current needs.** Many were viewed as possibly helpful to students (undergraduate research initiatives, GATA network), and at times there was a sense that central programmes overlapped or impinged on existing departmental initiatives and so were either not necessary or in competition with grass-roots activities (GATA network). Timing was noted as an important factor in making initiatives work: teaching and learning grants need a long lead time because of research ethics procedures, and also because of the frequent need for curriculum re-design to incorporate a new initiative in to a course. For many of these very busy people, engaging in a formal course or training programme seemed like too great an investment. At the same time, there was some sense that online modules would not provide what appeared to many to be an important opportunity for mutual dialogue, networking, and community building. Finding optimal, multi-layered approaches to meeting professional development needs should be the focus of further research for the University. The Forum also reviewed a number of possible topics for professional development programmes, included in Table 8.

Table 8: Proposed Professional Development Modules for Educational Leaders

TITLE	DESCRIPTION
Seven Tips for Assessing Impact	Demonstrating the success of an initiative is challenging. This resource would provide key strategies for collecting and analyzing useful data to assess the impact of an initiative.

TITLE	DESCRIPTION
The Languages of Institutional Persuasion	Generating “buy-in” and demonstrating the importance of an initiative before the fact (and before any data are available) is often key to the success of an initiative. This resource would develop skills for leveraging institutional resources by sharing effective approaches to persuasion and exploring the key concerns of different campus stakeholder groups.
Teambuilding	Successful initiatives often rely on cohesive and productive teamwork. The proposed resource would provide strategies for building motivation, inspiring, supporting, and managing a team; addressing conflict; and getting the work done on time.
Understanding Change	An effective initiative often requires changes in practice, policy, or attitudes, which may be met with a lot of resistance. This resource would provide an overview of the common obstacles and pathways to creating change in a way that secures acceptance and engagement.
The Many Models of Leadership	Leadership takes many forms and has many dimensions. The objective here would be to both generate awareness of the differing models, and encourage self-reflection and assessment to further develop leadership skills.
Stakeholder Consultation	Initiatives for change will inevitably affect many stakeholders throughout the institution, including students, faculty, administration, and community members. This resource would share strategies for effective consultation across multiple stakeholders to help ensure initiatives consider the needs of all.
Basics of Project Management	Large-scale projects can have many moving parts and involve a wide range of people and resources. This resource would demonstrate useful structures for clarifying roles and purpose, tracking progress, ensuring all resources are in place, and meeting deadlines.
Secrets of the Research Ethics Board	Applying for ethics review can be daunting. This resource would provide key tips for successful research ethics applications related to the typical activities involved in teaching and learning initiatives.
The Basics: Seminal Works in Effective Undergraduate Education	Scholarly approaches require scholarly foundations and scholarly sources. This will be a quick introduction to some of the basic texts of university teaching and learning research and practice, intended as a starting point for situating an instructor’s work within the field.

Participants were asked to rank each module in terms of their perception of its potential helpfulness to them as leaders, and in terms of its priority for them. The results are provided as a ranking with the mean score (out of five, with five being the highest) (Table 9).

Table 9: Participant Rankings of Proposed Modules

TITLE	HELPFULNESS		PRIORITY	
	RANKING	MEAN	RANKING	MEAN
Understanding Change	1	4.2	3	4.0
Seven Tips for Assessing Impact	2	4.1	1	4.2

TITLE	HELPFULNESS		PRIORITY	
	RANKING	MEAN	RANKING	MEAN
The Language of Institutional Persuasion	3	3.6	4	3.96
Teambuilding	4	3.36	7	3.6
Basics of Project Management	4	3.4	2	4.1
Secrets of the Research Ethics Board	6	3.3	5	3.8
The Basics: Seminal Works in Effective Undergraduate Education	7	3.1	5	3.8
Stakeholder Consultation	7	3.1	7	3.6
The Many Models of Leadership	8	2.9	9	3.3

Other topics recurred in the open-ended request for other suggested topics. These included: academic budgeting (the phrase “follow the money” came up three times) and the development of project business plans, teaching and learning grantsmanship, increased awareness of other people’s initiatives for expansion/initiative protection, and designing educational research. Over the course of the day, there was also a recurring sense that the participants felt the need for better institutional knowledge, both in terms of its structures and policies, and in terms of knowing whom to call for more information. To an extent, participants also identified a need for greater knowledge of the university sector more generally.

Systemic and Structural Needs Unrelated to Professional Development

Although the intent of the Forum was, in part, to identify kinds of professional development and support programmes that would be of assistance to embedded educational leaders, it became clear over the course of the day that although participants did identify needs in these areas, the actual challenges they faced were at times more structural than informational. In many cases, it seemed that what they needed was **effective advocacy and problem solving with regard to structural problems**, for example, focused on:

- structural barriers to curricular innovation and barriers to co-teaching, particularly across faculties, mutual visibility of courses for course-trading, and more systematic approach to course sharing across units and faculties;
- improvement of internal institutional communications (all directions), and in particular communications that systematically articulates “the big picture” and helps people to find their place in it, improving institutional decision-making generally, to make it more consistent, more consultative, more aware of local issues, and more sustained across changes of administration;
- improved clarity around who does what on campus – better indexing, directories, and search mechanisms for the website came up repeatedly; and
- the establishment of reward structures and promotion and tenure processes which

better acknowledge educational leadership, SoTL, and educational initiatives as part of serious, scholarly work.

They also sought opportunities to **extend and enrich their lateral networks**, including:

- more active promotion of horizontal connection development so that they can operate outside the hierarchies to optimize everyone’s potential;
- actively teaching and supporting collaboration;
- efforts to coordinate projects, or at least to make them mutually visible – assisting people to see each other’s work, understand how things might fit together, and advocacy for greater openness to adopting and adapting another’s work; and
- more opportunities to connect with people with common concerns, goals, and interests.

They also identified a number of areas where they felt that they had room for personal growth, focused around the fostering of greater personal resilience, for example:

- knowing how to keeping things from getting personal, and managing when they do;
- “thinking bigger sooner” – helping people to develop vision, confidence, and the ability to move towards big picture goals in phases;
- learning how to reduce risk as part of planning, so that it was possible to take risks, but in ways less likely to fail, or identifying contexts where taking risks is relatively safe. A concomitant need for advocacy and support for creating “safe spaces” for innovation in the departments was also voiced;
- learning to say no – decision-making, judgement, assertiveness training;
- learning to ask good questions and learning when to do so; and
- learning to manage and reflect on failures.

In general, these appear to be less amenable to generic programming and modular support: they are more likely to require sustained opportunities for dialogue, reflection, and mentorship, potentially in a context of peer support and growth such as a learning community, whether face-to-face or virtual.

► Discussion

Data from the Forum provided a vivid snapshot of the aspirations, values, perspectives, concerns and strategies of emergent leaders in a variety of roles at the University of Windsor. The picture that emerges resonates well with the five-dimension model espoused by Bolden, Petrov, and Gosling (2008) (Figure 1). While the participants certainly did identify a range of personal qualities and experiences, it was clear that these played out within specific social contexts, and across a range of social contexts, some more constrained than others. Participants clearly functioned within departmental contexts where, at times, engagement with pedagogical change involved personal and professional risk and where the degree

of acceptance of new initiatives could vary considerably. On the other hand, most also appeared to operate across other networks where their identities as educational leaders were more readily accepted and understood, networks upon which they depended for meaning making, emotional support, and knowledge circulation. Establishing and accessing those networks is clearly an important factor in building capacity for embedded educational leadership initiatives on campus. While access to resources is always invariably challenging in embedded leadership initiatives, access to knowledge networks and the kinds of resilience and room to manoeuvre they provide appear to be the more critical requirement. The question of support or “buy-in” is a complex one, involving the interplay of the individual, the social, and the contextual, or, to put it another way, of vision, influence, and action: the issue of access to resources is often also an issue of how these dynamics play out.

Structural factors – tenure and promotion processes, reward structures, registrarial and quality assurance policies, hiring and research policies – have a profound effect on the long-term viability and sustainability of embedded leadership initiatives. Cumulatively, the impact of structural factors also has a profound effect on leaders’ willingness to continue to engage with institutional change. In general structural factors arose in discussion primarily when viewed as barriers: structural factors that supported leaders were perhaps less evident to them, though it was noted that engaging with policies that at first appeared as barriers could yield unexpected benefits. While it is certainly possible to draw the conclusion that bureaucracy is a gradual decimating force when it comes to the motivation and passion to lead change, the picture is more complex, and we have insufficient data to fully identify, let alone draw conclusions, from the patterns here. There are certainly tensions, but the degree to which they are necessary tensions, or fruitful ones, is a subject for further study.

Shared understandings of policy and procedure – and dialogue about the role and nature of regulatory practice at universities – are probably not as developed as they could be. On the other hand, tensions around bureaucracy’s role in the academy are very likely as old as the academy itself. In terms of our goals, there is firstly the need to create greater awareness of structural matters, and possibly to assist people in developing more interpretive skill in parsing policy and procedure, and in understanding their roots and sources. At the same time, there is considerable and necessary scope for working through structural issues, and in particular, a need to address the kinds of reward and programmatic structures that impede innovation and the predisposition for leadership. It is worth noting that policies and procedures do not appear randomly: we have produced them, over time, and collectively. They have been the work of generations of exactly the kinds of emergent leaders who are the focus of this study. In working to support their development, learning, and ongoing capacity for engagement, we are also engaged in structural work. None of these dimensions function in isolation.

What the Forum data provide most compellingly is a sense of what Bolden et al. (2008) describe as the “developmental” dimension of leadership: the degree to which individual leaders change and are changed by the systems in which they operate. This dynamic requires constant learning, adaptation, reflection, negotiation, and meaning making for those seeking to navigate towards specific goals within organizations and networks. It is particularly for this reason that “knowing when” – the necessary parsing of all of these dimensions in order to make decisions or take action – is both so fundamental, and so challenging, in leadership and change management.

Areas for Further Support and Advocacy

A. Fostering individual and system capacity for change

The forum demonstrated the strong base of leadership potential and commitment at the University of Windsor, and a good level of practical expertise regarding the management of change initiatives. That said, it was clear for many that acquiring this expertise involved a lot of pioneering and “trial by fire” – many spoke of a sense of risk involved, of the challenges of undertaking innovative projects without a “safe space” for innovation. Possible approaches:

- Establish a plan to raise awareness of and support for individual and department-level innovation: how do we become a “change-capable” university?
- Develop a greater level of individual awareness of incremental initiative design, and ways to identify the necessary levers and tensions to gain support for initiatives, how to get “early successes” to support those initiatives.
- Work systematically and explicitly to help leaders and innovators conceptualize and develop resilience, and to create opportunities for teams to develop resilience.
- Explore the potential of team-based training/development initiatives. For example, one-week, team-based project development academies focusing on for example grantsmanship, institutional navigation, and skill building for pilot projects that have proven successful.

B. Addressing structural barriers to educational leadership and innovation

Forum dialogue elicited numerous structural impediments both to specific initiatives, and to continued or expanded engagement with change initiatives by emergent leaders. Many of these must be addressed at the institutional level: this is an example of the necessity of hybrid leadership through which formal leaders can create more room for emergent leadership to thrive and vice versa.

- **Curricular and programmatic limitations:** barriers to co-teaching, particularly across faculties; mutual visibility of courses; and more systematic approach to course sharing across units and faculties.
- **Promotion and tenure issues:** the ways in which educational leadership is documented, evaluated, and valued in personnel decision making must be reviewed and standards developed. Opportunities for different tenure streams (as at University of Victoria, University of Alberta, and Mount Royal University) should be explored.
- **Differential access to resources:** many innovators on campus are not tenured or tenure-track faculty. A systematic review of the ways that role impacts leadership in order to identify barriers, opportunities, and support options would make leadership from varied roles more sustainable, and would improve our capacity to fully leverage leadership capacity on campus.

Addressing these structural challenges means engaging with the kinds of policies and agreements that require long-term negotiation among different stakeholders on campus. This dialogue and negotiation

– a real exchange of views and vision – is critical to extending and supporting a vibrant leadership culture on campus. Systematically giving voice to emergent leaders in this dialogue would better inform the debate, and provide useful opportunities for growth across stakeholder groups.

C. Improving communications

The emergent leaders who took part in the Forum strongly reflected the notions of boundary crossing described throughout the literature, and the challenges of attempting to balance the worlds of the disciplines and departments and the world of the institution. Communications must acknowledge and publicize the rich variety of institutional practice, and also consistently help people to understand the “big picture” of the university, to see themselves in the context of the “grand challenges” of the academy and the “current challenges” of the institutional context. While emergent leaders reflected varying degrees of knowledge about institutional practice and context, it was clear that they felt that this kind of information was both valuable and at times elusive. However, the challenge is considerable: faculty receive both too much, and too little, information, in that there appears to be a constant barrage of email and documentation, but the degree to which it is or is made meaningful to faculty appears to be limited. Often the truly meaningful information is circulated through personal networks: however, while knowing who to call is always a valuable asset, it is hardly an equitable approach to knowledge management for an institution. Possible approaches include:

- Multi-layered communications that leverage both hierarchical structures and more complex networks of alliances, collaborators, and interdependencies, must be established. This requires a significant degree of knowledge of campus culture and a constant openness to learning more as it evolves.
- Opportunities for varied significant networks to interact (Roxå, & Mårtensson, 2013) need to be established.
- Communications strategies have to be multi-directional if they are to offer something of benefit to emergent leaders. They may also need to be more sensitive to “just-in-time” and “just-for-me” communications strategies.
- The University’s website and search engine are considered highly problematic by those attempting to use them for internal purposes: the issue of internal communications and the lack of a faculty portal remain an enormous problem for the promise of distributed leadership.
- We should systematically explore the use of social media and other communications technologies, “low-tech” informal events and sessions, and the establishment of learning communities in various areas for educational leaders. It is also wise to keep in mind that highly independent and successful people may not see themselves as candidates for extended courses, and may not view themselves as needing to be ‘educated;’ peer learning, consultation, and task-specific work sessions may provide more effective alternatives. Establishing effective models of support and exchange will require iterative cycles to determine what will work, what kinds of “groups” people see themselves as belonging to, and what makes it “worth” being part of these events.

- We learned a great deal from the Forum participants, and from the insights and “on-the-ground” experience of change at the University. All possible opportunities to engage formal leadership as well as service units at the University in dialogue with emergent leadership should be explored in order to enhance their capacity to innovate together.

D. Specific professional development opportunities

Finding optimal approaches to meeting professional development needs should be the focus of further research for the University. In general, maximizing the permeability of professional development was a recurring theme: there must be many ways to access and engage with learning, and structures of professional development should lend themselves to varied access. It would appear that a wide variety of approaches and models will be necessary: our goal of integrating more effective leadership support into existing funding programmes seems consistent with this need, as would further exploration of learning communities approaches, and potentially the exploration of team-based project planning intensives.

- Participants identified a number of important topics about which they needed to learn more, and these will form the basis of ongoing professional development planning. Many of these topics focused more on the mechanics of change: project management, budgeting, business plans, and grantsmanship. Importantly, though, in many cases this was balanced by a sense that these “nuts and bolts” practices had to be integrated into a larger vision or bigger picture of how institutions function – it was clear that although designing a project budget was important, a wider understanding of how university finance works, or what administrators understand to be the critical challenges facing the University, were fundamental to being able to envision, articulate, “sell” and evaluate new initiatives, and that the participants were seeking greater guidance in these areas. An approach to professional development that draws on cross-institutional expertise would be of real benefit in providing insights for these innovators.
- One trope that came up repeatedly and in a variety of contexts was the idea of “knowing when” – which it became clear was an idea that sits at the heart of leadership practice, where vision, influence, and action function within a given context, and where the individual’s ability to parse and integrate these factors is critical to success. The idea of “knowing when” – or learning to know when – could, in and of itself, form the basis for a highly effective approach to leadership development based on the notions of contingent, contextualized leadership in complex systems.
- If we acknowledge the notion of the university as a complex adaptive system, it follows that professional development should focus on leadership in context, rather than focusing on the isolated development of personality traits or skills in individual leaders, and that approaches that inspire and support organizational and team effectiveness should play a role.

E. Fostering horizontal networks and egalitarian collaboration

Participants identified the hierarchical and bureaucratic governance and disciplinary structures of the University as barriers to greater innovation. There were a number of factors here:

- Firstly, disciplinary silos tended to limit access to information about what is happening in other parts of campus, and to make working across disciplines with people from other departments with similar concerns or interests, more difficult. Working across disciplines was viewed as particularly important in terms of building support networks, as many do not find allies for the work they are doing within their own departments.
- Hierarchical structures tended to shape decision-making that might not be well informed about situations on the ground, which could “blind-side” established projects without awareness of impact. Hierarchical structures were also viewed as limiting the potential sphere of action of various leaders on campus: sessional instructors, staff members, and pre-tenure faculty, for example, were identified as having less potential agency (and security) under the current system than would be optimal. It is unclear precisely where the levers are here, but it was clear from the discussion that in general, a more egalitarian ethos should be followed in decision making and planning for fostering leadership whenever possible.
- A third element here was the profound value participants placed on multi-faceted networks: they were considered to be an essential resource for change management and leadership. Systematic planning for the development of networks supported through a variety of communications and meeting opportunities might be of assistance here. It is worth noting that getting people together for the explicit purpose of networking has historically not been an effective approach on campus: activities that bring people together must have a valued purpose, but also offer the strong opportunity for networking and bridge building.

F. Advocacy and support for improved decision-making

Much of the university leadership literature reviewed notes that academic communities frequently distinguish between formal educational leadership roles, which are often viewed as “management,” and informal educational leadership which functions through vision, influence, and collaborative action. While our findings are consistent to a degree with that conceptualization, these roles and responsibilities cannot really be viewed in isolation: each group is strongly affected by the other, for good or ill. Forum participants identified a lack of consultative decision-making, policy and bureaucracy, rewards and evaluation structures, and departmental climate as critical factors in educational initiatives, factors which could often mean the difference between success and failure. Formal educational leadership plays a critical role in all of these. And of course, though they were not the focus of our study, the effectiveness of leaders in administrative roles rests in part on the work of embedded educational leaders who can be advocates for change, models of change, and key experts in determining effective policy. On the other hand, in less constructive contexts, these two groups can find themselves at odds. Thus while the roles and needs of these two groups are possibly distinct in a number of ways, they are

also interdependent and cross-fertilizing: **leadership support and development must address these two pillars of leadership in concert.**

- A critical factor here is finding ways to agree upon the kinds of data that can be used to evaluate the impact of projects. There was considerable interest in learning more about impact assessment and about designing educational research, which would assist in providing evidence of the outcomes of initiatives. While this is critically important information if we are to systematically identify, sustain, and extend educational initiatives, the benchmarks and indicators used must be accepted on a broad basis: there is no point in innovators gathering evidence of effectiveness if administrative decisions do not take that evidence into account systematically. Again, this challenge is one that lives at the interface between embedded educational leadership and administrative decision-making, and greater dialogue and awareness of a broad nature is critical here.

Programme Review: The Peer Collaboration Network²

Scholars in SoTL generally agree that “engagement with peer observation and review of teaching is a critical aspect of both developing and evidencing engagement in evaluation and reflective practice” (Gunn & Fish, 2013, p. 31), characteristics often associated with educational leadership. According to Gunn and Fish (2013), three common threads link these forms of engagement:

- Engagement in, discussion about, and documentation of the perceptions of students, peers and educational developers regarding one’s teaching (Drew & Klopper, 2014);
- Engagement in peer evaluation, whether reciprocal or one-sided (Kell & Annetts, 2009); and
- Summative assessment of teaching practices as a peer review process (Murphy, MacLaren, & Flynn, 2009).

This review of the Peer Collaboration Network is organized into two parts: Phase 1 focuses on the status of the network in terms of its intent and structure, stakeholders and what their experiences have been, and what factors have contributed to or provided barriers to its initial success; and Phase 2 outlines what the proposed future directions of the network are and how the success of the network will be assessed.

Phase 1

Goals and Approach of the PCN

The overarching goal of the PCN is to provide faculty and staff a means by which they can develop their own teaching practices, which, when considered collectively, will enhance teaching practices

² This section is adapted from the following program review study: Andrews, D., Bornais, J., Dixon, J. (2014). *Status Report: Peer Collaboration Network (PCN)*. Windsor: University of Windsor. We gratefully acknowledge the contributions of the authors.

across all academic units at the University of Windsor. It is also hoped that teachers will benefit from their participation in the network by being able to demonstrate their effectiveness and dedication to teaching in a more sophisticated way than currently available through student evaluations of teaching alone. It is expected that improved teaching practices will provide students with enhanced learning experiences.

The objectives of the PCN are addressed by a model of participation involving peers collaborating during three meetings, the central one being a classroom observation. The primary characteristics of the PCN, which account for its uniqueness and participant appreciation (see below), are that it is driven by the participating instructors, it is voluntary, non-evaluative, confidential, and does not pose a significant time commitment to those involved. The process begins with a short meeting between an observer and an observee, the purpose of which is to discuss specific aspects of teaching that the observer would like feedback on during the classroom observation. These aspects of teaching are provided to the observer in advance of the initial meeting in the form of a list, which includes various items including indications of rapport with students, delivery/presentation of material, and organizational and interactive elements. Following the classroom observation, the observer and observee meet to exchange ideas and discuss the feedback provided. The focus is on the sharing of ideas and experiences related to teaching and learning, and not on evaluation. The observee can request formal feedback, but it is not required. All discussions and information shared between peers is confidential and will not be shared with anyone else. The collaborators are encouraged to switch roles and continue the dialogue through a reciprocal observation, but one-way participation is also valued and supported.

Stakeholders

An initial team of five members of the Provost's Committee on Teaching and Learning proposed and developed the PCN, under the co-ordination of the Vice-Provost, Teaching and Learning. The five members of the team were educational leaders representing four units on campus who had been previously recognized for their teaching excellence within and external to the University of Windsor.

From the original team, a few champions emerged who were trained to conduct observations within their own units on campus. To date, a total of 15 participants from four different academic units have been involved in the PCN, as an observer, observee, or both. Participants have been predominantly full-time faculty members who teach as part of their positions as professors on campus. However, several learning specialists and sessionally-appointed faculty have participated to date. The PCN is open to all teaching members at the University, including those who have tenured, tenure-track, limited-term and sessional appointments.

The network has been facilitated by the establishment of Teaching Leadership Chairs (TLC) on campus, which are funded by the University's Strategic Priority Fund. Two chairs, one in the Faculty of Nursing, and one in the Faculty of Human Kinetics, have tasked themselves with running and expanding the network, and determining its success moving forward.

Feedback From Initial Participants

In order to help guide future network development, participants were asked to provide feedback on the structure and functioning of the PCN by answering several open-ended questions (Table 10).

Table 10: Open-Ended Questions Asked of Initial Network Observers and Observees

OBSERVER QUESTIONS	OBSERVEE QUESTIONS
1. Did the pre-observation meeting serve to identify specific areas the colleague identified for feedback?	1. Did the pre-observation meeting serve to identify specific areas you identified for feedback?
2. Was the instrument listing possible items for observation and feedback useful?	2. Did you feel at ease in the role of the observee during the class?
3. Did you feel at ease in the role of the observer during the class?	3. Did you feel at ease in receiving feedback from your colleague after the observation?
4. Did you feel at ease in supplying feedback to your colleague after the observation?	4. Do you think you gained some useful feedback from the observation follow-up meeting?
5. Do you think your colleague gained some useful feedback from the observation?	5. Have any key issues about teaching and your students learning arisen from this observation?
6. Did you learn any teaching tips or strategies from the observation?	6. Please provide further comments and/or recommendations to improve the Peer Collaboration process at UWindsor.
7. Do you think you will become increasingly confident in the process of providing helpful feedback to colleagues should you choose to observe classes in the future?	
8. Did observing another colleague help prepare you for having your teaching observed in the future?	
9. Please provide further comments and/or recommendations to improve the Peer Collaboration process at UWindsor.	

Overall, early participant feedback has been very positive with respect to the network's design and process. Several themes in the responses were identified. First, participants felt that the non-evaluative approach that focused on sharing teaching experiences, helped to reduce the anxiety that can be associated with the classroom observation. The focus on sharing teaching experiences and approaches also helped to make the participants feel comfortable. Observees indicated that the reciprocal nature of the process, whereby they would have the opportunity to observe their collaborator and provide feedback to them during a classroom observation, helped to reduce the stress associated with being an observee initially. Finally, the most common feedback provided by participants, whether they were observers or observees, was that the focus on sharing teaching experiences resulted in new knowledge they could take back to improve their own practices immediately.

Factors That Facilitated Success

The focus on sharing teaching experiences resulted in new knowledge they could take back to improve their own practices immediately.

There are two main factors that have contributed to the initial success of the network. As indicated above, how the network has been structured and the process followed by the participants has created a safe, informative, and positive learning environment that has stimulated interest and change within the units involved. Secondly, without the support provided by the champions within each unit, the network would not have developed as it has. The planned expansion of the network (Phase 2) will not be possible without establishing champions within other academic units on campus. Observees have indicated that they appreciate

that their collaborators are peers, rather than administrators. They also respect collaborators who have demonstrated that they take teaching and learning seriously in their own classes and have been recognized for doing so.

Developing the PCN beyond its current status has been facilitated to a major extent by the establishment of the Teaching Leadership Chairs on campus, which are supported by the University's Strategic Priority Fund. These positions and funds provide the champions the support they need to pursue the goals of the network and address the factors that challenge its expansion and success.

Challenges to Success

The PCN has already shown that it has some support on campus and has provided a meaningful experience for those involved. However, a few challenges will need to be overcome if the network is to develop as proposed. In order to expand more broadly into all academic areas on campus, champions from each of these units must be recruited. Over 50 educational leaders and teaching award winners have been identified and will be invited to participate shortly. Many of these people are familiar with the PCN and have informally indicated interest in participating. Expansion of the network within each unit will also depend to a great extent on addressing negative perceptions regarding peer review that exist on campus. In particular, informal feedback from people on campus suggests that they would hesitate to be involved because they perceive that they will be evaluated; their performance will be communicated to others, including administration (which may impact their status or progression through the ranks); they do not have time to be involved; and they do not see the value of the process and think that student evaluations of teaching are all that is required when assessing teaching effectiveness. All of these issues are being addressed by the PCN through its inherent structure and mode of delivery. In addition, the network champions are delivering presentations to each academic unit to describe the initiative and answer questions related to the process.

Phase 2

Future Directions

Network development will be focused in two areas in the second phase of the project: network expansion within and among academic units on campus, and documenting the success of the network, in terms of specific outcomes or indicators.

Indicators of Success

Given the initial very positive feedback regarding the structure and functioning of the PCN in Phase 1 of this project, it is clear that the network has already been successful in expanding to a limited extent, developing interest, and establishing key stakeholders in several academic units in the University. The intent is to expand the network to include at least 75 different participants across all Faculties within the next two years.

The planned expansion of the network (Phase 2) will not be possible without establishing champions within other academic units on campus.

To establish the success of the network moving forward, it is proposed that indicators of success, such as those summarized in Table 11, will be documented and analyzed. New participants (both observers and observees) to the network will continue to be asked to provide feedback regarding the structure and functioning of the network in order to guide future development and effect any necessary changes.

Table 11: Proposed Indicators to Track Network Expansion and Success

INDICATORS OF SUCCESS	DESCRIPTION
1. Participants	number of different participants (observers and observees) in the PCN, across all academic units
2. Academic units	number of different academic units represented by the participants in the network
3. Repeat participants	number of participants who have participated as observers and/or observees on more than one occasion
4. Referral participants	number of participants who have been referred to the network
5. Transitioning participants	number of participants who transitioned between roles (observer, observee) within the network

► An Evaluation of the Centred on Learning Innovation Fund³

Introduction

The Centred on Learning Innovation Fund (CLIF) provides seed grants for full-time instructors to develop, implement, and assess creative and novel ways of approaching teaching and learning. The small grants, ranging from \$2500 to \$3000, have been competitively awarded since 2007 through the University of Windsor's CTL. This report provides a summary of an evaluation of the CLIF grant programme, conducted from January to June 2014, which assessed the capacity of these funding awards to foster innovative teaching and learning as well as promote the development of educational leadership among the grantees.

³ This section is adapted from the following program impact study: McMurphy, S., Gil, L., Ackerson, T., Skene, A., Potter, M. (2014). *An Evaluation of the Contribution of the Centred on Learning Innovation Fund Grant Projects for Enhancing Teaching and Learning and Promoting Educational Leadership at the University of Windsor*. Windsor: University of Windsor. We gratefully acknowledge the contributions of the authors.

Methodology

The evaluation included an examination of the process and impact of the grant programme focusing on successfully awarded projects between 2007 and 2012. The process evaluation concentrated on the grantees' experience in applying for and managing their CLIF grants and elicited suggestions for improvement of the programme and grantee support that would aid in promoting successful projects (Guerra-López, 2008). The process evaluation also focused on the variation in intent and content across the grants as well as the types of scholarly products and pedagogical innovations that resulted from the individual projects (Bamberger, Rugh, & Mabry, 2012). The impact analysis focused on the influence and contribution of the CLIF grant programme for enhancing the quality of teaching and learning as well as promoting educational leadership and engagement in leadership activities among the project members (Gentle, 2014; Posovac & Carey, 2007).

To carry out these two forms of evaluation, four analytical methods were used. Qualitative thematic analysis of the grant application narratives was conducted to examine the type of innovation and content scope of projects that were successful in obtaining funding. Utilizing a grounded theory approach, this type of analysis is useful for the extraction of latent thematic content across multiple sources (Braun & Clarke, 2006). Quantitative content analysis was employed to assess the range and representation of different categories of teaching and learning projects, the quantity of types of scholarly products, and outputs and outcomes as described in the final reports. This method of content analysis method is considered reliable and valid as a technique for measuring manifest content (Riffe, Lacy, & Fico, 2014; Rourke & Anderson, 2004). A network analysis was conducted to illustrate the distribution of the grant funds across the University and the interdisciplinary collaborations formed through the grant projects. In-person interviews were conducted with PIs and an on-line survey was disseminated to all co-PIs inquiring about the application process, factors related to the success of their grant project, results and impact of their projects and how the grant programme contributed to their identities as educational leaders and innovative teachers.

Indicators used to measure impact and educational leadership were identified through a Delphi process with teaching and learning experts at the University of Windsor (Hsu & Sandford, 2007). The indicators identified through the facilitated interactive process were converted into questions for the principal investigator (PI) interviews and co-PI survey (Appendix B).

Results

Part I: Award Diversity and Network Development

Between 2007 and 2012, 52 grants were awarded to 45 PIs and 66 co-PIs. At the time of this final report, eight additional grant awards for the academic year 2013-2014 were in the process of being finalized; these new grants were not included in the evaluation summarized in this report.

Each Faculty at the University of Windsor had at least one CLIF grant awarded to a PI in one of their Departments. Table 12 illustrates the reach of the CLIF grants across disciplinary areas.

Table 12: CLIF Grants Awarded Across Disciplinary Areas

UNIVERSITY FACULTY	NUMBER / %
Faculty of Arts, Humanities and Social Sciences (FAHSS)	20 (38%)
Faculty of Education	8 (15%)
Faculty of Science	7 (13%)
Faculty of Engineering	5 (10%)
Faculty of Nursing	4 (8%)
Faculty of Business	4 (8%)
Faculty of Law	2 (4%)
Administration (Library, Student services)	2(4%)

Of the 52 grants awarded between 2007 and 2012, 45 (87%) were given to unique PIs, while 7 (13%) of these grants were given to repeat PIs, meaning individuals who were PIs on more than one CLIF grant over the 5-year period. Of the 66 co-investigators, 11 (17%) were co-PIs on more than one grant and 4 of the 11 (36%) subsequently became a PI of their own CLIF grant. The number of unique individuals and the distribution of grants across each Faculty at the University of Windsor address two of the criticisms of small grant programmes, namely that only a small number of instructors apply to the grant programme and as a result, the funds have a narrow reach and little depth across the disciplines. This does not appear to be the case with the CLIF grant programme; the process of soliciting applications and selecting grant awards successfully achieved a broad representation of faculty and disciplinary areas across the University of Windsor.

Application process and reason for applying for a CLIF grant

PIs and co-PIs all noted that the opportunity to apply for a CLIF grant allowed them to respond to a specific interest or need, such as to enhance their own development, pilot test a new teaching and learning method, explore a new teaching area, or expand an existing project. For example, several PIs and co-PIs said that, as new faculty, the opportunity to apply for a CLIF grant was critical in helping them to build collaborative relationships with colleagues in their departments and to develop their teaching agenda. Other more established faculty members, indicated that the CLIF grants gave them the opportunity to shift their focus in teaching and learning and pilot test new methods and techniques that they had heard about, but did not have the means to explore. Finally, several PIs said that the reason they applied for a CLIF grant was to expand an existing project into other curriculum areas within their Department, or test an idea with colleagues in different Faculty disciplines.

All of the PIs and co-PIs specifically noted the helpfulness of the staff at the CTL and the support they received in applying for their CLIF grant. Almost all of the respondents indicated that the application guidelines were clear, the process for applying was straightforward and the forms were easy to use. Several PIs noted that they felt the CLIF grant application process was the easiest of all the internal grant

applications at the University of Windsor. The two negative comments regarding the application process concerned the difficulty in meeting a specific deadline date and requests by the review committee to provide additional information to clarify parts of their application.

Faculty collaboration and network development through CLIF grant project teams

The development of networks and collaboration both within and across faculty has been identified as an important factor for promoting educational leaders both in the literature (Gentle, 2014) and by teaching and learning experts at the University of Windsor through the Delphi process noted previously. Of the 52 CLIF grant projects funded between 2007 and 2012, 73% of the grant awards were given to project teams, while 27% of the grants were awarded to projects led by a single investigator. Among the team projects, 75% were made up of intra-departmental members and 25% were cross-Faculty teams. None of the CLIF grant teams were made up of inter-departmental members, i.e. between members of different departments within a specific faculty. To assess the collaboration developed across the CLIF grants, a network analysis was conducted to illustrate the composition of the project teams.

The network maps, formed around the PI as the origination point, utilize five features to illustrate the project teams (Appendix C, Figures a, b, and c). These features include the node, node size, colour, lines, and line weight. The varying circles on the map are nodes, which provide different types of information depending upon their size. The largest node, or circle, represents the specific faculty at the University of Windsor with which the PI is associated. The medium size node, or circle, represents a department within each of the Faculties. There are 13 unique departments represented in the network maps: five from the Faculty of Arts, Humanities and Social Sciences – Communications, Media and Film, English Literature, Language and Creative Writing, Psychology, Social Work and Visual Arts; three from the Faculty of Science – Biological Sciences, Computer Science and Physics; and one each within Business, Education, Engineering, Law, and Nursing.⁴ Finally, the smallest circles represent the individual project type classified as one of five primary categories (assessment, curriculum, open/e-learning, student experience, and pedagogy) and 4 sub-type stratifications for the pedagogy study type (methods, principles, skills and tools).

The maps are constructed using a hierarchical approach to represent each individual project starting with the faculty (the largest node) connecting to their corresponding departments (medium-sized nodes) and finally to the project type (the smallest nodes). To further illustrate the hierarchies, the network map uses colour to identify each individual faculty and corresponding department, as well as each individual project type.

Each line on the network map represents a connection between nodes. The arrows indicate the direction of the connection: from PI to co-PIs team members. To represent a unique study, an arrow originating from the largest node will lead to a smaller node. Lines with multiple arrows indicate team members in different faculties representing cross-faculty collaboration, as illustrated in the smaller network map

⁴ The latter are all non-departmentalized faculties and therefore are portrayed as “departments” for the purpose of the network maps.

of projects in the Faculty of Science (Appendix C, Figure b). The line weight or thickness represents the number of projects that connect each node. Thicker line weights are only seen between faculties and department connections. For example, illustrated in the Faculty of Science map (Appendix C, Figure b), the three lines between corresponding departments (Biological Sciences, Physics and Computer Science) range in thickness. The thickest line—connecting the Faculty of Science with the biology department—indicates that the Biological Sciences department has had the highest number of CLIF grant projects within the Faculty of Science between the years 2007 and 2012. In addition, the Faculty of Science engaged in five cross-faculty team projects, one project as the PI and the rest as co-PI team members with projects in the Faculty of Engineering, Education and Faculty of Arts, Humanities and Social Sciences.

The results reveal the breadth of the collaborative projects supported through the CLIF grants, illustrating the extent that the CLIF funding has supported projects across the entire University.

The third map illustrates CLIF grant projects in the Faculty of Engineering (Appendix C, Figure c). Here five projects containing cross-faculty collaborations can be seen, four of which had PIs from the Faculties of Engineering collaborating with co-investigators from the Faculty of Science, Faculty of Education, and Administration. In the fifth project, an Engineering faculty member was a co-PI with a PI from the Faculty of Arts, Humanities and Social Sciences.

The results reveal the breadth of the collaborative projects supported through the CLIF grants, illustrating the extent that the CLIF funding has supported projects across the entire University. The maps also illustrate the type of collaboration that has been supported through these grants, particularly within cross-faculty teams. The collaboration across the disciplines, for example between Engineering and the Faculty of Arts, Humanities and Social Sciences and between the Faculties of Science and Education, are critical examples of the capacity of the CLIF grant programme to support the dissemination of innovative teaching and learning strategies as well as strengthen the collegial climate across the University generally. However, the maps also illustrate an interesting gap, in that no project teams were comprised of members from departments within a faculty, such as between Psychology and Social Work, even though they each had multiple grants with project teams. Moreover, the intra-departmental team grants were often lead by a PI that was a new faculty member (in pre-tenure probationary period) or by sessional instructors, while the cross-faculty grants were led by PIs that were more established, such as having tenure or permanency. As noted above, new faculty indicated that the CLIF grants provided them the opportunity to develop collaborative relationships with their departmental colleagues, while established faculty reported that the grants allowed them to explore and test ideas with colleagues across the University. The network analysis confirms and illustrates these responses.

Part II: Impact of CLIF Grant Projects

Using the results from the qualitative content analysis, the CLIF projects were classified into the following categories: assessment, curriculum, open/e-learning, student experience, and pedagogy. Based on the number of grants that were classified in the pedagogy category, four sub-categories were created to

further stratify these projects by principles, skills, tools, and methods. Table 13 shows the representation of these categories across the CLIF grant projects.

Table 13: CLIF Qualitative Context Analysis Breakdown by Category

PROJECT TYPE	NUMBER OF CLIF GRANT PROJECTS / PERCENT OF TOTAL	
Assessment	4 projects	7.7%
Curriculum	7 projects	13.5%
Open/e-learning	9 projects	17.3%
Student experience	12 projects	23.1%
Pedagogy	20 projects	38.5%
Principles	4 of 20 projects	
Skills	1 of 20 projects	
Tools	5 of 20 projects	
Methods	10 of 20 projects	

Assessment

Grants within the Assessment category supported projects testing innovative assessment procedures that complement experiential learning methods, or the development of student participatory practices in assessing student achievements of learning outcomes. Professional programmes, such as clinical nursing or law clinic training, explored assessment techniques that would test students' ability to apply course material and demonstrate that they had met professional competencies in real-world settings. For example, several CLIF grant projects tested student independence in addressing ethical dilemmas and the ability to make difficult decisions related to care or treatment using live actors as simulations or real-life vignettes.

Examples from two projects illustrate the use of student-led participatory exercises as alternatives to traditional exams. In a business communications course, students engaged in group exercises in which students presented various perspectives on business communications issues using a formal debate process. The content of the exercise was supported through the collaboration of instructors from the Faculty of Business and the Faculty of Education. An evaluation of the new assignment showed that 82% of students preferred this method of assessment as they felt it improved their public speaking and communication skills, which was the focus of the course.

A second example is from a CLIF project involving a social work graduate-level programme evaluation course. In this course, the traditional mid-term exam was replaced with a group exercise where students identified a social problem and designed an intervention using an on-line software package called "Theory of Change On-line." This software package, typically used by non-profit organizations, allowed

students to illustrate their programme structure and corresponding intervention assumptions through a “change map.” The student maps were then exchanged anonymously with other student groups who provided peer feedback on the persuasiveness of the intervention design and corresponding Theory of Change. A two-year evaluation of this assessment technique, using a quasi-experimental design, found that 90% of the students in sections of the course using the new assessment technique were more satisfied and confident in their ability to design an intervention than in the comparison sections that used the traditional exam assessment method. The PI also reported that several community non-profit agencies had mentioned that they found the concept and mapping of Theory of Change useful for assessing their own programmes and had learned about the concept based on discussion with students interns or new hires that had been trained in the technique. This CLIF grant project is an example of an impact that extends beyond the University context.

Curriculum

Within the Curriculum category, projects in this area also focused on experiential learning, but as a technique for knowledge discovery and student engagement in the learning process. CLIF grant projects described using “critical participation methods” to include students in developing curriculum content and incorporating learning activities based on iterative, flexible methods that could be responsive to student educational needs. One example of a CLIF grant project within this category was a new course designed through a collaborative CLIF grant project between the FAHSS Visual Arts Department and Faculty of Science Biological Sciences Department. In this course, both fine arts and biology students explored the illustration of new biological technologies, such as DNA extraction and genetic modification, while also engaging in a deeper understanding of the contemporary ethical and accountability issues, and the historical connection between fine art and biology.

A second example of a CLIF curriculum project involved a collaborative project among instructors within the Department of Biological Sciences, which engaged students in designing new laboratory content for an existing Biological Diversity course. Student volunteers worked together for eight months to design and implement novel assignments and content for lab exercises, including areas that had not been covered in the lab components previously. Students were also tasked with designing an evaluation of their new curriculum, which they carried out with the new lab content over two years. The evaluation findings, based on surveys with a sample of over 500 biology students, found that the student created labs were consistently ranked higher than the traditional labs. Furthermore, the 100 students who were engaged in developing and testing the labs were highly satisfied with the process, rating their satisfaction with the project as a 4.6 out of 5. A subsequent evaluation found that a number of students continued to pursue research opportunities and attributed their interest to their initial experience in these participatory lab settings. This project is an illustration of the capacity of the CLIF projects to promote novel curriculum content as well as innovative teaching and learning experiences for students.

Open/e-learning

CLIF grant projects related to open/e-learning focused on integrating teaching technologies to improve accessibility, stimulate creativity, and provide multiple pathways into the curriculum. The integration

of technology into the classroom to improve technological literacy was a theme addressed by several of the grant projects. For example, two introductory physics courses created a set of on-line resources which presented material using animation and other novel illustrations of course concepts that could be utilized by students and teaching assistants throughout the term. A similar CLIF grant project evaluated the use of on-line learning modules and self-assessments that students could use in addition to course assignments to improve their mastery of course material and assess their progress. A subsequent evaluation of these on-line modules found that students who used these materials had greater mastery of the subject material and were able to maintain their grasp of critical concepts over a longer period of time than those students that had engaged in traditional assignments and tests.

CLIF grant projects in this category also focused on the use of technology to support instructors, for example, through teaching websites, availability of resources and mutual learning opportunities. For example, a website for associate teachers in Education enabled new teachers to interact with faculty at the University of Windsor who provided mentoring, information and resources. New teachers could engage with mentors through the site as well as download training vignettes and other modules for addressing professional issues in a timely and iterative manner.

Student experience

Student-experience CLIF grant projects focused on mitigating potential barriers and challenges to student engagement in education, such as introducing the use of universal design to address student needs or acculturation issues for first-generation and international students. CLIF grant projects in this category employed novel ways to address student inclusion and first-year experiences through mentorship programmes, civic engagement opportunities, and activities to raise student self-efficacy and empowerment. For example, two CLIF grant projects engaged international students in focus groups, surveys and community events to assess their initial experiences at the University of Windsor. The results from these projects contributed to the development of support services specific to the challenges expressed by the students. As the number of international students has increased on campus, the PIs from these projects noted that the findings have been critical in the development of effective services as well as subsequent research projects to support international exchange programmes.

Another CLIF project team focused on students with disabilities, which contributed to a re-structuring of their programme's undergraduate curriculum to incorporate universal design, and also contributed to the development of a programme on disability studies within the Faculty of Arts, Humanities and Social Science. Faculty and students worked together to create a new curriculum structure and the design of several new courses, supported through the CLIF grant project. This project also created a new area of research focus for the project team, who expanded their work into an international context and have surveyed other countries regarding educational supports for students with disabilities. At the time of this report, faculty in this project have published three papers and conducted five international presentations on projects that built upon the original CLIF grant project.

Pedagogy

The largest category of CLIF grant projects focused on pedagogical enhancements, which were

represented in each of the Faculties and in cross-Faculty collaborations. The development of ethical decision-making and ethical practices was one theme common to several grants, exploring the use of novel approaches to ethical dilemmas and methods of engagement for students and instructors. For example, a series of teaching vignettes were created to support the training of teacher candidates in meeting the Ontario College of Teachers' professional standards certification. The vignettes included issues of social justice and diversity, student empowerment and becoming agents of change offering pedagogical guidance for addressing sensitive material and ethical dilemmas within these disciplinary areas and as issues related to professional conduct.

Projects within this category also focused on the integration of theory and practice using narrative, visual aids, voice and art in novel ways for students and instructors to explore the manifestation of contemporary issues, such as biotechnology, urban decay and transition, cultural evolution, moral literacy and managing rapid technological advancements. For example, one CLIF grant project explored ethical issues related to biotechnology in which students created an art installation of exhibits representing contemporary dilemmas, such as a series of photographs illustrating the scientific process of cloning, artistic renderings juxtaposing animal and humans to challenge issues of differentiation, and the contrast of food ideas and food origins. Another CLIF grant project explored issues of ethics related to technology through the creation of a series of vignettes addressing free speech, spam, privacy and security that could be used in interdisciplinary settings. This CLIF project formed the basis for a subsequent book contract for the PI. Finally, another example of the impact of a CLIF grant project in this category was the enhancement of the forensic science programme through the use of a series of workshops using professionals in the field to create a 'CSI' atmosphere to explore elements of a crime scene. Students who participated in a subsequent evaluation of the workshops were very satisfied with their experience and highly motivated to continue with their studies in the programme.

Themes in these grants also focused on the instructor experience, for example, developing communities of practice to support faculty development and addressing challenges and enhancement to inter-professional and interdisciplinary teaching and learning. For example, one CLIF grant project explored the pedagogical and curriculum challenges involved in creating a cross-professional interdisciplinary programme. The grant award supported gathering data from other similar programmes throughout North America to examine curriculum content, pedagogical practices, assessment tools and innovative teaching and learning strategies used in other programmes. The result of this CLIF grant project contributed directly to the content and development of a programme at the University of Windsor.

Scholarly products

Scholarly outputs from the CLIF grant projects ranged from conference presentations at national and international conferences, scholarly paper publications and submissions, the development and content of teaching and learning websites and CD-Roms for training and distribution. Almost all of the projects (98%) reported presenting the findings from their CLIF grant projects at one or more national or international conferences. These venues included teaching and learning specific conferences such as the Society for Teaching and Learning in Higher Education (STLHE), the International Society for the Scholarship of Teaching and Learning (ISSoTL), the Professional and Organizational Development Network in Higher Education (POD), as well as discipline-specific conferences such as the Congress

of the Social Science and Humanities, Canadian Disabilities Studies Association, and the Canadian Association of Social Work Education.

Approximately 35% of the CLIF grant projects resulted in the development and submission of a scholarly publication and at least 5 of those submissions had been accepted for publication at the time of the final reports. Three of these published articles were in teaching and learning journals and two were in discipline-specific journals. All of the PIs interviewed indicated that they were either working on a publication or had plans for a scholarly product from their CLIF grant project.

Curriculum contributions beyond the University of Windsor

Seven of the projects reported developing workshop content and materials, such as CD-Roms, workbooks, video-taped vignettes, and lesson-packs that have been distributed to other institutions and are made available on-line. For example, a series of recordings created through a collaboration between Education and Faculty of Arts, Humanities and Social Sciences explored professional identity development and ethical dilemmas. A set of CD-Rom workbooks provide examples of Universal Design techniques that are primarily used to support students with disabilities, but are widely applicable across faculty settings, were created through a project team in social work. Lesson-packs in physics were created through a single investigator grant and are currently distributed on-line for instructors teaching introductory physics courses.

Project category collaboration illustrated in network maps

Classifications of the projects were also noted on the network maps, which illustrate the type of projects within departments and cross-faculty collaboration as described earlier. The grant type is indicated by the smallest nodes on the map and the title of the corresponding project category is indicated near the node circle (See Appendix C, Figures a, b, and c). CLIF grants projects focusing on assessment can be found primarily in Law, Nursing and Engineering. Curriculum focused CLIF grant projects are located mainly within department teams and among single investigator projects. The majority of these projects are found within the Faculty of Arts, Humanities and Social Sciences. Similarly, CLIF grant projects focused on Student Experience are found primarily within department teams or cross-faculty and administration teams. These projects are located within psychology and social work with individual grants in business, education and biological sciences. Open/e-learning is represented across the faculties, but either as a single department project or in collaborative teams primarily between Faculty of Science and the Faculty of Education. CLIF grant projects focusing on aspects of pedagogical innovation were primarily represented in cross-faculty teams and located within all of the University faculties.

Factors that promoted or hindered successful implementation of grant projects

The majority of PIs and Co-PIs reported that they did not need to make any modifications in their projects after receiving their grant award. The few that did report making changes in their projects after receiving funding indicated either that the magnitude of what they wanted to accomplish needed to be scaled back or that research ethics issues raised by the REB required modifications in their projects, such as sample selection criteria, consulting other REB/IRB boards or confidentiality concerns with evaluation data collection procedures. Several of the grant projects reported having difficulty hiring

students or making the timing of the grant work with the academic calendar year; for example student availability was limited during certain times of the year and over the summer, which either prolonged the initiation of the project or expanded the time needed to complete the project.

Several of the PIs and co-PIs mentioned that recruitment of participants for their projects and/or evaluation components of their grants created difficulties that they had not anticipated. At least three of the projects that involved focus groups reported having difficulty recruiting sufficient participants. Two other projects

conducting interviews with individuals outside of the University setting had difficulty recruiting participants in the time-frame of the grant. Both projects reported cutting back on their expectations and modifying their approach, but that they were still able to meet their project outcomes.

Approximately 60% of the respondents indicated that the CLIF grant project had ‘contributed substantially’ to their identity as an educational leader, while 30% indicated that the project had ‘contributed moderately’ to an educational leadership identity.

Part III: Promotion of Educational Leadership and Teaching Identity

Contribution of the CLIF grant projects for developing a teaching identity

Recipients of the CLIF grants were unanimous in their assessment that the CLIF grant funding programme had provided them with the opportunity to pilot-test enhancements in the content of their courses and instructional approaches that they would not have been able to engage in without the support of the funds. They were less unanimous in determining that the grant had changed their teaching identity; approximately 30% of the respondents reported that the CLIF grant project had ‘contributed substantially’ to their teaching identity while the same proportion indicated that the CLIF grant had only ‘contributed slightly’ to their identity as an instructor. The influence of the CLIF grant project for influencing the grantees’ teaching identity was expressed differently among faculty at various stages of their careers. For example, junior faculty who had received CLIF grants in their pre-tenure stage found the grants to contribute to the development of their teaching portfolio, assist them in enhancing their teaching techniques and approach to student learning, as well as solidifying their teaching identity. For established faculty, the grants provided them with an opportunity to test new approaches in their classrooms and revitalized their engagement in teaching and learning, while not having as great an impact on their teaching identity.

On the other hand, the majority of respondents did feel that the CLIF grant project had enhanced their identity as someone engaged in teaching-related research and as an educational leader. Over 30% of the respondents indicated that the CLIF grant ‘was essential’ to changing their identity as someone engaged in teaching-related research, an additional 40% said that the CLIF grant project had ‘contributed substantially’ and 25% indicated had ‘contributed moderately’ to a change in their view. Only two of the respondents felt that the CLIF grant project had not contributed to their view as someone engaged in teaching-related research; this difference corresponded to the administrative and management focus of these two CLIF grant projects.

Over half of the respondents indicated that additional “buy-in” from their Chairs or Deans during the project and after, would have also been beneficial for their project, both in implementing their projects as well as utilizing the results.

The contribution of the CLIF grant programme for promoting an educational leadership identity was also substantial. Approximately 60% of the respondents indicated that the CLIF grant project had ‘contributed substantially’ to their identity as an educational leader, while 30% indicated that the project had ‘contributed moderately’ to an educational leadership identity. Only two people indicated that it had ‘contributed slightly’ to a change in their identity, but both also noted that they felt they were in positions of leadership already and that while the grant had influenced their work, it did not make as much of a change in their identity as a leader.

The majority of the PIs and co-PIs described becoming more engaged in discussions regarding pedagogical changes within their Department and in some cases within their Faculties as examples of their educational leadership. For example, several

respondents said that they had been invited to participate in discussions with Administration on changes they had made to the curriculum or results from their project. In one case, the results from a CLIF grant project formed the basis for a successful application for an award on community-university partnerships. However, many also noted that their ability to engage in more leadership activities related to teaching and learning was limited based upon the research expectations of faculty and the competing priorities of their time. Several mentioned that they had begun advocating for more research on teaching and learning and to have greater acceptance of this area of research as a legitimate focus for faculty research agendas as a way to integrate administration’s expectations of faculty and their desire to focus on the scholarship of teaching and learning.

Part IV: Areas for Further Enhancement of the CLIF Grant Programme and On-going Evaluation

Project management and continuation support

The PIs and co-PIs were unanimous in their appreciation for the support they received from CTL in applying for the CLIF grants. Several mentioned that support during their projects would have been helpful, such as a workshop on project management, supervision, and research-related activities, applying to the REB and recruitment of participants. Over half of the respondents indicated that additional “buy-in” from their Chairs or Deans during the project and after, would have also been beneficial for their project, both in implementing their projects as well as utilizing the results. Several mentioned the possibility of applying for additional money to continue with their projects, or the opportunity to apply for smaller add-on funds to support activities that were not anticipated when the grants were written. Several respondents also suggested providing assistance for finding and applying for larger grants that would support the continuation of their projects or expand the focus of their projects across the University or within the community.

Impact on student research assistants

Interviews with the PIs revealed another area of impact that we had not identified when we designed

the evaluation summarized here. Most of the CLIF project grant funds were allocated to students to work as research assistants, and their efforts were integral to the implementation of the grant project. Ninety percent of the CLIF grant projects reported having some form of scholarly outputs, such as conference presentations and publications, included students as co-authors in these products. Additionally, many of the PIs interviewed noted mentoring relationships that had developed between the PI and students, and the increased exposure of students to teaching and learning methods that they would later utilize as graduate students or teaching assistants. Capturing the impact of the CLIF grant projects on students and how their involvement contributed to their own educational development and leadership would be critical for future evaluations. For example, an additional requirement could be added to the evaluation component of each CLIF grant project to include an assessment of the experience of any students involved in the project and impact of the grant project on their educational development. These results could be included in the final grant report and in subsequent evaluations.

Ninety percent of the CLIF grant projects reported having some form of scholarly outputs, such as conference presentations and publications, included students as co-authors in these products.

Disseminating and sharing expertise

Over 90% of the respondents indicated that having a venue to share expertise or disseminate their findings in a collegial way would benefit their project. Several suggested developing learning communities around similar projects or creating additional mentoring possibilities that would support the dissemination of the results from their projects. Related to the comments on increased “buy-in” from colleagues and administration, PIs and co-PIs mentioned that the opportunity to meet collegially and present their projects to colleagues and administration might lead to improved support for subsequent incorporation and utilization of CLIF grant project results.

Over 90% of the respondents indicated that having a venue to share expertise or disseminate their findings in a collegial way would benefit their project.

The scope of the grant projects, as illustrated through the content analyses, demonstrates that the CLIF grant programme has resulted in the development of specific expertise among project teams and within certain departments or faculties. However, there are few structural opportunities to disseminate successful results and no mechanism within the CLIF grant fund programme to share this expertise. Grantees are encouraged to present their results at an annual teaching and learning conference hosted collaboratively between the University of Windsor and Oakland University, at which the majority of grant recipients reported that they had presented a poster or formal paper. This is a well-attended conference and includes a broad range of peer-reviewed presentations from instructors, learning specialists and students from the two Universities, but does not specifically promote the collaboration or sharing of knowledge from the CLIF-supported projects. Almost all of the respondents suggested that the CLIF grant programme and recipients would benefit from an opportunity to connect CLIF

project teams who could benefit from specific expertise that is being developed through the CLIF grant projects, particularly those that may be in the process of developing their projects or exploring the use of methods or evaluation measurements and indicators, which may not be in a place in the project implementation to present at a conference, but could benefit from the expertise and knowledge from other CLIF grantees.

Changing the culture of teaching and learning on campus

Approximately 85% of the PIs and co-PIs indicated that they would be interested in applying for additional CLIF grants; others qualified their interest in specifying that they would apply if they had a project that was appropriate for the funding. However most PIs indicated that the competing priorities for faculty time and the limited recognition given to enhancements in teaching were disincentives for continuing to explore and engage in innovative or new teaching and learning projects. While changing the culture of the University is a broader goal than the scope of the CLIF grant programme, the grant recipients create a cohort of committed instructors who could be organized through subsequent activities to work toward changing the culture of teaching and learning across the University. As many of the PIs and co-PIs attribute their identity as an educational leader and researcher in teaching and learning to their involvement with the CLIF grant programme, building in subsequent activities may provide a natural progression for engaging recipients in further promotion of teaching and learning at the University of Windsor.

Measures for assessing programme impact of small grant programmes such as the CLIF grants

Often used as mechanisms for pilot testing new ideas and promoting innovation, small grant funds programmes are subject to several critiques. First, because the monetary award is very limited, these grants may be of interest to only a small group of committed instructors and therefore may have a limited influence across academic disciplines. Second, the scope of the grant projects may be narrow as a result of the specific interests of the faculty who apply for the funds, limiting the pedagogical contribution to the broader institution. Alternatively, these funds may support such a broad range of topics that they are spread too thinly to promote meaningful development in any specific area. Finally, the limited funding may be too small or insufficient to support projects that result in effective and sustainable innovation. Another lens through which to examine these small grant programmes is whether they are sufficient in fostering a leadership identity among the grantees that engages them in committing to the enhancement of teaching and learning across the University environment.

To address these potential limitations of small grants, and to further evaluate impact of similar programmes, evaluation designs should include measures that will assess the reach and distribution of the grants across the University environment. For example, our network analysis provided a visual assessment of the distribution of the grant projects; additional measures could include an assessment of the grant teams and the specific involvement of the team members in the actual project as well as how the results were used within their specific disciplines. Cross-faculty collaborations provide the potential for interdisciplinary impact, however, the types of modifications that might be necessary to support the integration of the project components within specific disciplines would be important to document for further replication and impact.

Similarly, the ability to create sustainable outcomes that continue beyond the end of the project would enhance the impact of the grant award and contribute to the ability of the projects to make substantive change in teaching and learning environments. Measuring the factors that contribute to or hinder successful grant project outcomes is one part of the sustainability continuum; however, additional evaluation points after the grant projects are completed are important. These later evaluation points should include measures of whether the project products are still being used, if they have been modified, what barriers have arisen in using the products and what factors have promoted on-going implementation. Our findings from this evaluation suggest that encouraging buy-in from higher administration could assist in further incorporation of project results, which would increase the impact of the grant projects. Incorporating a series of evaluation points after the completion of projects, such as an annual evaluation for two years subsequent to the grant award, would assist in identifying the factors which have supported or prohibited the sustainable impact of the projects.

Measures of educational leadership and change in teaching identity could benefit from a pre-post cohort design, where grant applicants are informed of the intent of the projects to contribute to their development and identity as educational leaders. Recipients could be asked to self-identify the areas that they feel the project will contribute to regarding their own development, as well as completing standardized instruments that measure indicators of leadership development identified within the grant programmes own outcomes. This would entail the development of programmatic leadership outcomes with corresponding indicators that could be measured with either new or existing tools that would be administered to all grant applicants at the point of submission. Gathering data from all applicants can create comparison cohorts of both successful and unsuccessful grant applicants who can later be assessed according to the different forms of teaching and learning enhancements they seek. The specific areas of personal development identified by successful grantees could be assessed at the point of the final grant report and later be used as measures for improvement in the CLIF grant programme. Unsuccessful applicants form a cohort that could inform changes to the support and process of the grant application and could be surveyed to identify what other development opportunities and funding options they pursued subsequent to their grant application.

Finally, measuring the trajectory of CLIF grantees in further engagement in teaching and learning opportunities would provide another measure of the impact of the grants on developing educational leaders. For example, in this evaluation, grant recipients were in varying stages of their academic careers and sought CLIF grant funding for different personal purposes, while maintaining the intent to engage in enhancing teaching and learning at the University. Measures that capture the timing of the grant award and subsequent development of the grantees in taking on educational leadership opportunities would inform the capacity of the grant programme in developing leadership identities. These measures could be incorporated into an annual survey of grantees that would gather data both on the subsequent outcomes of their grant projects and individual leadership development, as described above, but also continue beyond the data points related to the project outcomes to include other measures of educational leadership activities such as mentoring, collaboration and development of networks outside of their departments and/or university setting, specific contributions to teaching and learning such as local committee involvement, agency and community involvement/civic engagement related to education, professional accreditation opportunities, provincial, national and international teaching and learning.

Ongoing review of the definition of innovation, impact and educational leadership to continually incorporate and expand ways that these may manifest among grant applicants and recipients will keep the measures current and relevant for on-going evaluation of impact of these CLIF grants and similar programmes.



Future Directions

Preliminary Observations

Given a provincial landscape that increasingly requires agile decision-making and a capacity for project-based initiatives and change management (HEQCO, 2013), the growth of effective approaches to fostering, supporting, and coordinating the efforts of decentralized leadership becomes a critical requirement for university management. As De Geus (1988) put it, the only true advantage a company has is its employees' ability to learn faster than the competition: effective management of distributed leadership is critical to formulating that advantage.

That said, it is clear that a well theorized and researched model of distributed leadership, although emerging, has not yet reached the stage of offering clear guidance or evaluation regarding how best to proceed, even in contexts such as the UK and Australia where such models have been considerably more evident and better supported for more than a decade. In Ontario, and even in Canada, there appears to be a dearth of research on educational leadership and educational policy in higher education, a very serious gap in our understanding and knowledge as we move forward (Clark & Norrie, 2013; Jones, 2013). Given this context, we are adopting a cautious and exploratory approach: the recommendations and indicators below are not at all to be considered a formal strategic plan, but are offered as possible starting points for dialogue, consideration, and reflection among instructors, faculty, administration, and leadership-supporting units on campus regarding the strategic value of distributed leadership, and how best to foster, support, and to a degree, systematize how we approach it, though always with the understanding that its autonomy is critical to its value to the campus.

A core recommendation, therefore, is to explore, with senior management, the principles and nature of distributed leadership in universities, and the potential establishment of mechanisms and a strategic plan for raising awareness and development of distributed leadership campus wide. What follows are possible elements of such an exploratory plan, all of which must be considered across multiple-stakeholder groups and through a variety of lenses. In general, they would require iterative cycles of preliminary review, pilot implementation, evaluation, and improvement in order to ensure their fit with the campus culture and needs.

► Preliminary Performance Indicators

EELI Indicators

As one of its intended outcomes, this project sought to develop a preliminary set of tools to measure the impact of embedded educational leadership initiatives. Overall, the major questions we were seeking to better understand included:

1. What is the impact of EELIs at the University of Windsor?
2. How do the actual impacts of EELI initiatives compare to their intended and desired impacts?
3. How can we identify EELI-supported projects for further investment, enhancement, upscaling, and perhaps mainstreaming?

A common way to examine impact is through indicators, observable signs that allow verification of progress towards a goal. Indicators can help demonstrate progress, provide early warning signals, identify needed changes and facilitate effective evaluation of impact. It is important to note that indicators are imperfect, only providing a proxy for the complexities of change. Importantly indicators cannot explain why a change has occurred. Consequently, additional analysis and judgement are always required in combination with collecting information from appropriate indicators (Chalmers, 2007; Church & Rogers, 2006; UNDP, 2002.). Indicators may be used throughout the processes of planning, implementation, monitoring, reporting, and evaluation for programme improvement (UNDP, 2002).

Types of Indicators

Four types of indicators are often considered. Input and output indicators are generally used for the quantitative measurement of an intended result or change. **Input** indicators signify quantifiable resource allocations for initiatives (human, financial, physical, cultural). **Output** indicators signify quantifiable direct results and consequences of initiatives (Bruke, 1998; Chalmers, 2008; Warglein & Savoia, 2001). Because input and output indicators are measurable, they are the most commonly collected indicators in higher education. However, qualitative indicators can provide deeper interpretation and understanding of the measured variable, more useful for decision-making and enhancement of higher education.

Process and outcome indicators are usually qualitative in nature. **Process** indicators provide information about ongoing practices, programmes and policies that can be used to inform qualitative judgement and decision-making. **Outcome** indicators provide information about the degree to which the results of an initiative achieve their desired outcomes (Bruke, 1998; Chalmers, 2008; Chalmers & Thomson, 2008; Kuh, Pace, & Vesper, 1997). Some literature identifies **situational** indicators as an additional type of indicator; these describe the broader contextual situation of a project (UNDP, 2002). While the national context is beyond the scope of the current project, situational indicators may be useful in a future larger examination of embedded leadership in higher education, provincially or nationally.

To assess the impact of EELI initiatives, we recommend two categories of indicators as simple proxies for impact (Bordon & Bottrill, 1994; Cave, Hanney, Henkel, & Kogan, 1991; Chalmers, 2008; Richardson,

1994): a combination of input/process indicators, and a combination of output/outcome indicators. The amalgamation of results from input and process indicators enables a more nuanced interpretation of output and outcome indicators.

Levels of Impact

Kember (1997) and Rowe (2004) among others have identified the importance of considering levels of potential impact within each of the types of indicators. An indicator may assess impact at the individual level, the larger departmental/programme level, or at the institutional level. For the two combined categories, we have examined possible indicators that might address impact at each of these levels. In future studies, a fourth level examining impact beyond the institutional level or at the provincial or national level could be added to the analysis.

Selecting Indicators

As the authors of the *United Nations Development Program Results-based Management Report* put it, “It is more helpful to have approximate answers to a few important questions than to have exact answers to many unimportant questions” (UNDP, 2002, p. 5). Selecting indicators wisely is critical.

Initial identification of possible indicators generally occurs through brainstorming and research. Then, the indicators must go through iteration loops, where they are assessed for validity and practicality. Using a set of criteria can help users to better evaluate indicators, which is a critical step to gathering the most relevant information. Chalmers’ (2008) “SMART” model suggests that indicators should be:

- *Specific* – able to identify what they mean and what they are measuring.
- *Measurable* – sensitive to what is measured and verifiable.
- *Attainable* – realistic to gather clear and valid information.
- *Relevant* – aligned with either the intended outcome or output.
- *Trackable* – able to follow information back to the source, and monitor credibility of the collected data.

Assessing Impact in Teaching and Learning

The systematic assessment of teaching and learning initiatives in universities has historically been quite limited, but there are increasing pressures to identify impact and outcomes both for accountability and improvement purposes. It is difficult, without good data and analytical methods, to make decisions about how to maximize support for instructors in order to make the greatest contributions possible to student learning (Grabove et al., 2012). While satisfaction surveys conducted directly after workshops are quite common, more substantial, long-term evaluation of a broader range of initiatives is quite rare (Wilson & Enns, 2010). An exploration of approaches to improving impact assessment in the Ontario context occurred at a 2011 HEQCO working session of several dozen experts from Ontario post-secondary institutions regarding college and university teaching and learning centres. Overall, the following themes emerged:

- Assess what matters;
- Connect with institutional and centre goals;

- Develop a cohesive system to collect data;
- Collaborate strategically; and
- Plan for and use the results (Grabove et al., 2012).

A further recommendation involved serious consideration of timelines for assessment: while immediate feedback can provide useful insights into the reception of a given activity or intervention, long-term feedback is critical to understanding outcomes in terms of a clearer understanding of participant self-perception of learning, and of changes to beliefs, action, and culture (Frielick & McLachlan-Smith, 1999, cited Grabove et al., 2012). As noted above, levels of impact are also important. Interventions may impact an individual's practice, but may have more extended direct or "ripple effects" that impact departmental or institutional practice, organizational support and so on (Weston & Winer, 2009). While there appears to be a degree of consensus around these general principles for impact assessment for teaching and learning initiatives, there are few examples of well-developed, implemented, and assessed models focusing on distributed leadership initiatives (Jones, Hadgraft, Harvey, Lefoe, & Ryland, 2014).

Assessing Impact in Contexts of Distributed Leadership

Further, given what we have come to understand about the systemic interactions that produce leadership on our campus and others, and the limits to what is known about the way distributed leadership operates, circulates, and thrives, it is clear that the agenda to assess EELI impact must adopt a multi-faceted, exploratory, and consultative approach. There are a number of reasons for this:

- EELI-supported projects are volitional initiatives driven by emergent leaders who often place a high value on autonomy, and who further are often gradually evolving into academic identities that include understanding themselves as educational leaders, a process that can create a sense of vulnerability and risk as individuals enter into a new discourse (Wright & Hamilton, 2008). A fully coordinated, top-down programmatic approach may function as a disincentive to engagement, and is also not consistent with the self-directed, democratic, and highly contributory values and practices of distributed leadership.
- EELI-supported projects have, by their nature, highly divergent perspectives and goals, so not all indicators will be relevant to every project: there must be a degree of flexibility in the adoption of indicators allowing for what Trowler, Saunders, and Knight (2003) describe as the capacity of initiatives or tools to be "domesticated" by grass-roots leaders.
- Serious engagement with assessment tools and indicators is most likely if the tools provided are generic and locally adaptable, likely to elicit positive responses both intellectually and emotionally, profitable to those on the ground, and appropriate to the evolving needs of the context (Trowler, Saunders, & Knight, 2003). In other words, indicators and assessment tools must be "win-win" and offer EELI participants as well as the centralized sponsoring units something of value: this requires extended consultation and collaboration.
- Distributed and embedded leadership models are not sufficiently theorized or

researched to allow full evidence-based benchmarking, so a more exploratory approach is indicated (Jones et al., 2014). In particular, qualitative approaches, which allow for greater opportunity to explore and explain an incompletely understood phenomenon, remain fundamental at this stage (Creswell, 2002), and, given the nature of the field, are likely to remain an important component of documenting and assessing practice.

- Finally, the impact of measurement and assessment in complex systems must be both carefully considered and factored into iterative development cycles: because systems are adaptive, evaluation can have unexpected consequences, as agents within those systems seek to maximize their access to valued resources. As the authors of the UNDP Research-Based Management Technical Notes (2000) note, impact assessment in complex adaptive systems involves at least three open methodological issues that require ongoing monitoring, vigilance, and adaptation in practice:
 - Distortions: it is well understood that a number of difficult to quantify areas, such as capacity building, advocacy, influence, beliefs, values, and the complexities of experience in learning contexts, may be the most important outcomes of a given EELI. However, results-based approaches to assessment can shift participant emphasis to what is measurable and quantifiable, to the detriment of the real goals and needs of the institutional community. A second type of distortion noted is the problematics of models that emphasize comparison among projects, resulting in an over-emphasis on what projects do that is the same, rather than what projects do that is unique.
 - Attribution: cause-and-effect is difficult to establish in complex systems. Often unknown factors create distal effects, while people tend to look for causes closer to home (Sterman, 2006). While indicators can provide some approximate representations of what is occurring, the evaluative process of determining impact requires a much higher degree of caution, and sustained integration of input from multiple and multi-faceted sources of data.
 - Aggregation: initiative impact in complex systems is differential (Trowler, Saunders & Knight, 2003) and therefore aggregate data may tend to mask significant impact on specific sub-groups within a population. This is a specific example of the broader challenge of fully addressing the limitations of much of the data that can be gathered within complex systems. As Graniero, Hamilton, and Cramer (2014) put it, these data are often best treated as “signposts to broader patterns, trends or potential differences: persuasive, not conclusive evidence. Unfortunately the appearance of numerical precision can be beguiling” (p. 234). In general, a range of both quantitative and qualitative data will provide a better basis for discerning assessment.

Given the understanding of embedded educational leadership initiatives as a vehicle for and subset of

distributed leadership, these factors must be taken into account in the development, implementation, and refinement of EELI indicators. Consequently, we have developed a broad range of preliminary indicators based on the research literature, the findings of our impact studies and educational leader dialogues, and our collective expertise regarding teaching and learning practice, change management, and leadership practice. The intention is for these to be iteratively and collaboratively refined through a series of meetings with EELI leaders, administrators, and teaching and learning experts who will also have strong input into the development of relatively simple feedback instruments for gathering much of the information.

EELI-Supported Project Assessment: Preliminary Indicators⁵

Assessing the impact of individual leadership projects is an important step to enhancing projects, and identifying data that is useful for assessing the larger impact of embedded educational leadership initiatives. Generally, project evaluation tends to be informed by demographic information (input indicators) and initial reaction from participants (immediate output). However, assessment models from Kirkpatrick (1996), Guskey (2011) (adapted by Wolf, 2006, and Wilson, 2010) provide a useful framework in project evaluation (as cited in Grabove, et al., 2012). As indicated by the CLIF analysis (See Environmental Scan, pg. 35), leadership projects have a variety of intended outcomes, including improvements at the level of assessment, curriculum, student experience, open/e-learning, and other forms of pedagogy. Assessment methods and indicators must align with the intended goals and outcomes for the project in order to be effective. The selection the assessment needs to be meaningful for the specific projects. Consequently, there is no single set of impact indicators, but a sample is summarized in Table 14 (drawn from literature including Chalmers, 2007; Grabove, et al, 2012; Wilson 2010). Student outcomes are a critical element of EELI-supported projects: Level 4b in Table 14 includes a range of student performance indicators. Future rounds of CLIF funding competitions will include workshops providing an overview of indicators and an opportunity to explore indicators in the context of proposed projects.

Table 14: Project Level Indicators

LEVEL OF ASSESSMENT INDICATOR	ASSESSMENT MEANS
<p>Level 1: Reaction Initial Reaction to the Project</p>	<ul style="list-style-type: none"> • Number of different units, disciplines and/or roles involved • Frequency of participation or change in participation • Frequency of use of a new educational resource • Participant feedback immediately following the project – satisfaction survey in paper or online
<p>Level 2: Reflection on Learning Immediate Reflection on Learning</p>	<ul style="list-style-type: none"> • Reported comfort level with new practice (students and instructors) • Survey or questionnaire to determine what is remembered (paper, telephone, online) • Pre/post-tests of knowledge or skills before and after project, with reflection

⁵ We would like to thank Erika Kustra and Michael Potter for their guidance and leadership in the development of this section.

LEVEL OF ASSESSMENT INDICATOR	ASSESSMENT MEANS
<p>Level 3: Change Organizational Support and Change</p>	<ul style="list-style-type: none"> • Change in university or departmental response (decreasing negative response, increasing positive reaction as seen in e-mails and testimonials) • Documented change in resource allocation by the institution (e.g., budget, upper administrative positions) • Analysis of micro/meso/macro levels of programmes and services (quantitative and qualitative analysis) • Undergraduate Programme Reviews – relevant comments raised as a result of projects • Changes in policy (qualitative analysis) • Changes in perception of policy implementation • Change in student involvement in committees, teaching and learning projects, and/or decision-making • Change in National Survey of Student Engagement (NSSE)⁶ or other measures of student engagement • Increased community engagement • Change in availability of appropriate student supports
<p>Level 4a: Results Changed Practice for Teachers</p>	<ul style="list-style-type: none"> • Measures comparing baseline and post-project documents: learning plans, assessments, course designs, teaching resources, teaching philosophies, teaching goals, feedback to students • Examination of learning objects or teaching artefacts (syllabus, assessments, teaching dossiers) • Improved alignment in course design (course syllabus analysis) • Change in reported expectation of obstacles and perceived obstacles • Change in awareness, understanding, and use of scholarly teaching and evidence-based practice • Pre/post scores on inventories such as Approach to Teaching Inventory (ATI)⁷, Teaching Self-Efficacy Inventory (Boman)⁸ • Self-report of impact, benefits, knowledge after a longer period of time (paper, online, phone) • Observer reports (such as Teaching Behaviour indexes) • Change in approach to learning and/or teaching problems following a project (observations or focus group reports) • Change in number of instructor/student interactions • Survey of instructor experience • Faculty retention rates • Perceived change in teaching quality (e.g., Student Rating of Instruction, Australian Course Evaluation Questionnaire)

⁶ National Survey of Student Engagement. Retrieved from <http://nsse.iub.edu/html/about.cfm>

⁷ Trigwell, K., Prosser, M., & Ginns, P. (2005). Phenomenographic pedagogy and a revised approaches to teaching inventory. *Higher Education Research and Development*, 24(4), 349-360.

⁸ Boman, J. (2008). Outcomes of a graduate teaching assistant training program. (Unpublished doctoral dissertation). University of Western Ontario, Canada.

LEVEL OF ASSESSMENT INDICATOR	ASSESSMENT MEANS
<p>Level 4b: Results Changed Practice/Experience for Students</p>	<ul style="list-style-type: none"> • Changed practice/experience for students • Thematic analysis of student ratings of instruction or formative feedback for instructors (one time, or change over time) • Pre/post tests of students prior to implementing an initiative • Student focus groups in class and outside of classroom • Change or difference in student grades on specific assessments, on overall course grade, or in future related courses • Changes in student approach to learning (e.g., Approaches to Learning Inventory)⁹ • Changes in students self-efficacy or self-confidence • Student achievement of learning outcomes <ul style="list-style-type: none"> • generic (e.g., Collegiate Learning Assessment¹⁰ of critical thinking, analytical reasoning) • discipline specific • course specific • Student progress rate, programme completion rate, or mean completion time • Number of students enrolling in future similar courses • Surveys of student experience such as: Australia and UK First Year Experience Survey,¹¹ Beginning College National Survey of Student Engagement (BCSSE),¹² Classroom Survey of Student Engagement (CLASSE)¹³ • Change in reported opportunities for interaction with students in class or online • Change in student learning hours/study time • Graduate employment status • Graduate surveys (such as the Australian Graduate Survey) • Increase in participation and success of students from marginalized or under-represented groups • Valuing of diversity and inclusivity • Change in motivation for life-long learning

EELI Programme Assessment: Preliminary Indicators

While the former section provides an overview of possible approaches to assessing individual EELI-supported instructor-led projects, it is also important to establish indicators for assessing the impact of EELI programmes at the programmatic level. As described in the CLIF Programme Impact Study Section (see p. 63), preliminary indicators to measure impact and educational leadership were identified through a facilitated interactive process involving teaching and learning experts at the University. These indicators were then converted into questions employed for a survey and interview procedure (See Appendix B). These indicators provided a foundation for further development, based on literature review; consultations with stakeholders, including faculty members, educational developers and administrators; the findings of the various research projects undertaken over the course of this

⁹ Approaches to Learning Inventory, <http://www.etl.tla.ed.ac.uk/publications.html>

¹⁰ Collegiate Learning Assessment (CLA), <http://cae.org/performance-assessment/category/cla-overview/>

¹¹ Chambers, 2007

¹² Beginning College National Survey of Student Engagement, <http://bcsse.iub.edu/about.cfm>

¹³ Classroom Survey of Student Engagement (CLASSE), http://nsse.iub.edu/_/?cid=211

study; and brainstorming among the project team. They were further refined in response to critique within the project team review based on standard approaches to refining indicators. In future phases of the study, these indicators will be reviewed with EELI leaders, experts in programme impact study, and other members of the campus community, and will undergo ongoing refinement to address validity, usability, and feasibility.

For the purposes of this project the indicators were categorized based on their relevance and specificity to the intended project goals of:

1. Increased self-efficacy and self-perception among educational leaders
2. Enhanced change-agency in terms of vision, influence and action among educational leaders
3. Meaningful educational changes effected as a result of EELI initiatives
4. Growth of distributed leadership on campus

Table 15 delineates proposed EELI programme-level indicators.

Table 15: EELI Indicators

GOALS	INDICATORS	ASSESSMENT MEANS
1. Increased self-efficacy and self-perception among educational leaders	a. Participants self-identify as educational leaders	Survey, interview, questionnaire
	b. Participants believes they are developing as educational leaders	Survey, interview, questionnaire
	c. Participants believe their educational leadership can effect meaningful change through vision, influence, or action	Survey, interview, questionnaire
	d. Participants attribute changes in their self-efficacy and perception as educational leaders to their involvement in EELIs	Survey, interview, questionnaire
2. Enhanced change-agency in terms of vision, influence and action among educational leaders	a. Participants are recognized as educational leaders by colleagues (i.e., recognized by teaching awards, recognized or rewarded by department, asked to lead committees and working groups, etc.)	Survey, interview, questionnaire, scan of websites for committee membership lists, award winners, etc.
	b. Participants engage in educational leadership activities	Survey, interview, questionnaire
	c. Participants have been involved in one or more EELI initiatives (CLIF, TLC, UTC, SPF, Open Learning, PCN, Open Category)	Survey, interview, questionnaire, initiative databases

GOALS	INDICATORS	ASSESSMENT MEANS
2. Enhanced change-agency in terms of initiative, influence, and action among educational leaders	d. Participants are motivated to take part in further EELIs based on their experience	Survey, interview, questionnaire
	e. Participants believes their involvement in EELI initiatives has enhanced influence as educational leaders	Survey, interview, questionnaire
	f. Participants have been invited to lead or take part in educational change initiatives or participate in formal educational committees on the basis of their involvement in EELIs	Survey, interview, questionnaire
	g. Faculty and student experiences with EELI initiatives contributed to perception that their institution values teaching and learning	Survey, interview, questionnaire
	h. Participants identify new educational leadership competencies developed through EELIs (project management, negotiation skills, change management, budgeting, grantsmanship)	Survey, interview, questionnaire
	i. Participants' knowledge of, and ability to use, incremental design and rhetorical strategies for educational leadership has increased since involvement in EELI initiatives	Survey, interview, questionnaire, pre and post tests
	j. Participants identify increased knowledge of governance structures, institutional policy, and formal and informal knowledge and influence networks on campus	Survey, interview, questionnaire
3. Meaningful educational changes effected as a result of EELI initiatives	a. Participants believe their involvement in EELI improved student learning	Survey, interview, questionnaire
	b. Students believe that EELI improved their learning or educational experience	Survey, interview, questionnaire
	c. Colleagues believe that EELI improved student learning	Survey, interview, questionnaire
	d. Participants' involvement in EELI (and/or EELI initiatives themselves) resulted in policies, practices, or publications that improved student outcomes or educational experience	Survey, interview, questionnaire, scan for new policies, practices and publications linked to projects (form websites, CVs, reports), pre and post
	e. EELI projects produced evidence of improved student outcomes (retention, achievement, satisfaction, success rates)	Survey, interview, questionnaire, pre and post retention rates, SETs, graduation rates
	f. EELI resulted in increased student leadership and engagement	Survey, interview, questionnaire
	g. EELI initiatives enhanced change-capacity in department or network	Survey, interview, questionnaire

GOALS	INDICATORS	ASSESSMENT MEANS
4. Growth of Distributed Leadership on Campus	a. EELI teams involved participants with varied roles and statuses	Reports and funding applications, survey, interview, questionnaire
	b. Institutional professional development regarding educational leadership is available to participants with varied roles and statuses	Scan campus programmes (via websites, phone interviews with programme leaders, etc.)
	c. Formal and informal leaders demonstrate Increased awareness and valuing of the systemic nature of leadership, the multiple types and roles of leaders, and of conditions that effectively support the growth of leadership.	Survey, interview, questionnaire
	d. Number of departmental members involved in EELI on campus increased	Reports & database
	e. Conversation about educational leadership and practice is a common feature of department at both the individual and formal level	Survey, interview, questionnaire
	f. Number of interdepartmental strategic collaborations and social networks regarding leadership and/or educational networks increased	Survey, interview, questionnaire, reports
	g. EELI initiatives (i.e. peer review and peer observation, SoTL research, and other forms of educational research) are rooted, supported, extended, and rewarded within the department	Survey, interview, questionnaire, scan of pertinent policies
	h. EELI initiatives have been up-scaled or mainstreamed to extend beyond their original faculty context	Survey, interview, questionnaire, reports
	i. Institution offers granting schemes for embedded initiatives (seed and sustained)	Survey, interview, questionnaire, scan of policies
	j. The institution documents, rewards and incentivizes involvement in educational leadership through such means as promotion and tenure.	Survey, interview, questionnaire, scan of policies, compare success rates of educational leaders to colleagues
	k. The institution's mission statement makes reference to the importance of educational leadership	Website scan
	l. The institution or units within the institution organize and support conferences and other forums for sharing educational leadership strategies	Survey, interview, questionnaire, website scan, public postings about such forums
	m. The institution formally recognizes educational leadership (i.e. leadership chairs, awards)	Website scan, policy scan, survey, interview, questionnaire

GOALS	INDICATORS	ASSESSMENT MEANS
	n. The institution has renewal and transition strategies educational leaders transitioning in to and out of formal leadership roles	Survey, questionnaire, focused interviews with department chairs, deans, and senior administrators
	o. EELI initiatives have been up-scaled to extend beyond the department, and/or beyond the institution	Survey, interview, questionnaire, reports
	p. The department has a renewal strategy for training and supporting emerging educational leaders	Survey, questionnaire, focused interviews with department chairs, deans, and senior administrators
	q. The number of stories about educational leadership n campus media has increased alongside an increase in EELI initiatives	Scan campus media
	r. Information about educational leadership initiatives is provided on campus websites.	Website scan

The multi-stage implementation plan related to indicator refinement includes expanding the existing CLIF and SPF application interfaces to incorporate a final reporting interface, as well as incorporating tools for survey distribution (i.e., Fluid Survey). The intention is to survey EELI participants (leaders, co-investigators, and student team members) at the 6-month, 1-year, and 2-year mark to gather feedback. The system will also incorporate mechanisms for providing information regarding CLIF projects to department-based administrators, and for seeking their feedback regarding the outcomes and effects of CLIF projects at the department level. Functionalities within the existing systems can be customized to our purposes, such as capacity to generate integrated spreadsheets based on user data, the ability to generate and contact specific user groups through the interface, and a final report interface that can be adapted and further developed as needed. This tool was originally built using a rapid-prototyping agile design model that is highly responsive to user needs: the intention is to continue with that method in order to ensure a high degree of user satisfaction with the end result. We will also explore the possibility of integrated reporting, where all interfaces provide data to one centralized educational leadership database. Future studies will help focus and refine the list of most useful indicators for evaluating the impact of embedded leadership initiatives, and to continually enhance the ongoing development of distributed educational leadership at the University.

One challenge that will require further study and careful management over the course of the implementation phase is the establishment of participant support for the overall data gathering and assessment project. One element of this involves early engagement and consultation, but a critical factor will be building in both expectations and incentives for use of the indicators and tools. One approach under discussion is to use these data to create a second stage of potential support for those completing projects based on evaluation of final report data to identify projects for further expansion and support in seeking institution-level funding, etc. More systematic approaches to celebrating and publicizing success stories will be explored. These data will also be used to identify educational leaders with

expertise who can make a valuable contribution to the learning of their leadership peers. Expectations for more extended final reporting and survey completion will also be built into the application process for future rounds of CLIF funding. As well, working sessions on tools for assessing impact of individual EELI-funded projects will be scheduled during the period of the CLIF call to familiarize proponents with the use and potential of these tools, which can improve their ability to establish departmental and institutional buy-in for their planned initiatives. More systematic approaches to celebrating and publicizing success stories based on team reporting will be explored. These are preliminary plans: working to establish a data-oriented culture at the institution and among embedded leaders is an important but moving target that will require ongoing consultation, adaptation, and leadership.

► Proposed Professional Development for Educational Leaders

Approach

If we acknowledge the notion of the university as a complex adaptive system, it follows that professional development should focus on **leadership in context, as well as working on skills and expertise development in individual leaders**. This will likely mean that a core element of leadership support will involve **mentorship, case-based study, and opportunities for collective reflection and growth** through structures such as learning communities.

Where possible, professional development should enable **formal and informal leaders at least at times learn and dialogue together** so that distributed leadership and its implications become a more conceptually salient factor in leadership thinking and planning on campus. **Specific events that bring together formal and informal departmental leaders, as part of a forum for dialogue and learning, should be established.**

For the most part, extended formal programmes appeared not to resonate with all leaders, but neither did a “just-in-time” modular approach, which they worried would not provide sufficient opportunities to network and meet with each other. In general, **maximizing the permeability of professional development was a recurring theme**: there must be many ways to access and engage with learning, and a variety of structures, both formal and informal.

Systematic and timely integration of targeted leadership support into existing funding programmes may be a promising approach to pursue, as would further exploration of **learning communities-based approaches**, and the exploration of intensive models of **team-based project planning** similar to our current week-long teaching dossier academy approach.

Topics

Based on participant demand and our programme reviews, the following topics should be considered priorities:

- Understanding change

- Impact assessment
- Establishing buy-in from a range of stakeholders
- Teambuilding
- Project management
- Research ethics and research methods
- Strategic budgeting
- Grant writing
- University finance
- University operations, policies, and governance

It is worth noting that there is already a wide variety of educational development offerings on campus focused on pedagogical and curricular innovation and practice: these do not appear here, though they clearly inform the work of educational leaders. Many of these topics would benefit from multi-stakeholder facilitation; individuals from both academic and non-academic units should be sought out as collaborators to develop them, and they should be publicized across academic and non-academic units, in order to maximize benefits and bring these groups of leaders (and possible leaders) together. A further topic not identified by participants, but clearly important for awareness raising is distributed leadership itself.

In order to assess campus demand, these should be offered initially in workshop formats and then, if there appears to be sustainable demand for more information or more sessions, the possibility of developing modules that could be used online or in hybrid formats for leadership courses could be explored.

► **Approaches to Expanding Embedded Educational Leadership Initiatives**

This section provides an integrated list of recommendations (Table 16) emerging from all elements of our institutional review of embedded educational leadership: the environmental scan, the CLIF and PCN programme reviews, and the consultation with campus educational leaders undertaken through the University of Windsor Educational Leadership Forum. This review has been a broadly-based scan and the first of its kind at this institution: given the complexity and scope of distributed leadership at a university, however, it cannot be said to be a definitive or exhaustive study of the factors impacting leaders “on the ground.” It has provided us with an improved snapshot of current conditions and a basis for establishing preliminary possibilities for the growth and enhancement of informed, distributed educational leadership on campus. The study identified six core objectives in support of the expansion of embedded educational leadership initiatives on campus:

1. Fostering individual and system capacity for change
2. Addressing structural barriers to educational leadership and innovation
3. Improving communications, knowledge exchange, and circulation
4. Fostering horizontal networks and encouraging egalitarian collaboration

- 5. Advocating for and supporting improved decision-making
- 6. Coordinating and improving data collection

It should be noted that planning for educational and systemic change is always a work of advocacy, persuasion, and influence. This means that while we can identify needs, levers, and opportunities, they are not all within the purview of the research team, who work primarily under the auspices of the Vice-Provost, Teaching and Learning. What we are proposing here is systemic change. It will require significant degrees of administrative support and cross-campus engagement with a vision of enriched leadership that contributes in systemic ways to improving the educational experience of students. As Hénard and Roseveare (2012) put it, fostering quality educational experiences is a multi-level endeavour that takes place at three inter-dependent levels: the individual, the programme, and the institution. In recognition of that, we have included a general indicator of the targeted level of focus of each recommendation, acknowledging that in many cases, these layers inform and interact with one another.

Table 16: Approaches to Expanding EELIs

1. FOSTER INDIVIDUAL AND SYSTEM CAPACITY FOR CHANGE	Focus
In general, this set of recommendations involves the development of the predisposition, sense of agency, and skills to lead change.	
<ul style="list-style-type: none"> • On a broad basis, continue to emphasize inquiry as a fundamental element of practice, and to encourage dialogue about students and student learning that creates aspirational approaches to improving the status quo and to inspiring awareness of the possibility (and evidence) of positive change in student learning on campus. 	Individual
<ul style="list-style-type: none"> • Find ways to capture the student voice. 	Individual
<ul style="list-style-type: none"> • Establish a plan to raise awareness of and support for individual and department-level innovation: how do we limit risk for those who are undertaking initiatives? What are the dimensions of the risk they face? These questions require further exploration if we are to find effective solutions. 	Departmental
<ul style="list-style-type: none"> • Collectively explore the nature of institutional buy-in and share those findings: develop a greater level of individual awareness of how to design initiatives incrementally, how to identify the necessary levers and tensions to gain support for initiatives, and how to get “early successes” to support initiatives. 	Individual/ Departmental/ Institutional
<ul style="list-style-type: none"> • Work systematically and explicitly to help leaders and innovators conceptualize and develop resilience. 	Individual/Team
<ul style="list-style-type: none"> • Explore the potential of intensive, focused team-based training and development initiatives. One approach might be to offer one-week team-based further development of completed pilot projects that have been identified as offering strong potential for expansion, or a higher level of external funding 	Team
<ul style="list-style-type: none"> • Review timelines for all EELI grants to ensure that application processes and project completion deadlines are manageable with regard to institutional structures and high-demand times such as Tri-Council granting deadlines, etc. 	Institutional

2. ADDRESS STRUCTURAL BARRIERS TO EDUCATIONAL LEADERSHIP AND INNOVATION	FOCUS
<p>Although our initial plan focused primarily on the idea of helping embedded educational leaders through the provision of more information and training, our evolving understanding of leadership’s contextual nature has led to a clearer sense that supporting these leaders may also require coordinated advocacy to effect necessary structural change. Firstly, individual educational innovators often do not have the necessary traction (or the time) to pursue change to barriers encoded in policy, procedure, or governance. Secondly, they often do not have the expertise to navigate these systems efficiently or the perspective to see the multiple ways in which a specific policy is intended to solve one problem, but is causing others.</p>	
<ul style="list-style-type: none"> • Seek more efficient cross-faculty ways to gather in these perspectives and create a centralized conduit for these kinds of information and for this kind of problem solving. Current challenges identified included: 	<p>Institutional</p>
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Curricular and programmatic limitations: barriers to co-teaching, particularly across faculties; mutual visibility of courses for course-trading; and more systematic approach to course sharing across units and faculties. 	<p>Departmental/ Institutional</p>
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Reward structures, and promotion and tenure issues: the ways in which educational leadership is documented, evaluated, and valued in personnel decision making must be reviewed and standards developed. Other ways of recognizing and rewarding the contributions of those in informal leadership roles should be explored, for example, an institution-level educational leadership award. Systematic approaches to identifying and supporting initiative expansion may be of assistance here, but this requires piloting and further study. 	<p>Institutional (possibly also Departmental)</p>
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Differential access to resources: many innovators on campus are not tenured or tenure-track faculty. A systematic review of the ways that role impacts leadership in order to identify barriers, opportunities, and support options would make leadership from varied roles more sustainable, and would improve our capacity to fully leverage leadership capacity on campus. 	<p>Institutional (possibly also Departmental)</p>
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Establishing reasonable, efficient, and effective SoTL and administrative research standards in consultation with the Research Ethics Board for course and programme development, and co-developing an institutional guide for efficient scholarship of teaching and learning. 	<p>Institutional</p>
<ul style="list-style-type: none"> • Overall, (and at nearly all universities) there remain many challenges in the degree to which decision making at the University is informed by pedagogical priorities, and with regard to the consistency of the knowledge base about teaching among those making decisions. The University has made considerable strides in the last decade in this area, and it is important that effective advocacy and raising awareness regarding the pedagogical implications of policy decisions continue among formal leadership and governing bodies. 	<p>Individual/ Departmental / Institutional</p>

3. IMPROVE COMMUNICATIONS, KNOWLEDGE EXCHANGE, AND CIRCULATION

FOCUS

One might also understand this area as **developing better knowledge management in institutional practice**: to explore and enact the idea that we need to treat knowledge as a resource that resides in people; cultivate its circulation, transfer, and growth among people; and create cultures and structures that normalize learning as a part of what people do (Nonaka, Toyama, & Hirata, 2008). On a disciplinary and educational basis this is clearly a core mandate of universities: ironically, they have not shown particularly strong leadership in the management of administrative and institutional knowledge (Clark & Norrie, 2013). In order for communications to contribute to knowledge management, it must incorporate greater analysis of the effectiveness of those communications and be based on the idea of systematic knowledge exchange, rather than one-way information distribution.

- **Expand opportunities for those involved in educational initiatives to present their work and to share their expertise with others** who might benefit from their prior experience. This requires more systematic evaluation of project outcomes including skill development among project participants, and a strong strategic awareness of relevance and timeliness for various audiences. **Individual**
- Systematically and collaboratively develop mechanisms for:

 - **Multi-layered and multi-directional communications that leverage both hierarchical structures and more complex networks of alliances, collaborators, and interdependencies** to circulate knowledge among networks and hierarchies: this is not a “one-way” process, and is as much about giving leaders a voice as about making sure they receive information. **Individual/Team/ Departmental/ Institutional**
 - **Increase opportunities for significant networks** (Roxå & Mårtensson, 2008) to **physically and mentally rub shoulders more often**. The expansion of learning communities, **peer learning, consultation, and task-specific work sessions** may provide more effective alternatives. Establishing effective models of support and exchange will require iterative cycles to determine what will work, in what context, and for what purposes. **Individual/Team/ Departmental/ Institutional**
- Advocate for **a review of the university’s website and search engine to find solutions for its usability as a source of current and searchable information for campus constituents**. **Institutional**
- In the meantime, **establish a University of Windsor Educational Leaders website** that showcases educational initiatives, and provides easy access to governance, policy, project-support, grant application, and publication opportunity information for those engaged in educational leadership initiatives, with their ongoing input regarding content. **Institutional**
- Explore the potential use of social media and other communications technologies to support distributed leaders and connect them virtually. **Institutional**
- **All possible opportunities to engage formal leadership as well as service units at the University in dialogue with emergent leadership should be explored in order to enhance their capacity to innovate together**. **Individual/ Departmental/ Institutional**

- In establishing communications models, it is clear that **what we are trying to do is establish shared understandings, not just pass on information**: while we will not always agree, the critical factor here is the meaningfulness of communication and how networks will tend to situate new information. In many cases we are operating in contexts where existing narratives can be quite resistant, and this must be taken into account as a fundamental challenge of improved communications. This may be particularly true in considering how policy is developed, launched and communicated: **effective practices for policy development, implementation, communication, and revision within the context of distributed leadership should be further explored.**

**Individual/
Departmental/
Institutional**

4. FOSTER HORIZONTAL NETWORKS AND ENCOURAGE EGALITARIAN COLLABORATION	Focus
<p>Leaders consulted over the course of this project tended to describe horizontal networks as a source of strength, resilience, and strategic information, and noted various kinds of challenges created by hierarchical structures of universities despite the acknowledgment of the importance and value of disciplinary identities and collectives. Our study reflects the findings of the literature: these two organizing principles are interdependent and often mutually necessary. From the point of view of emergent leaders, however, these horizontal connections tended to be very important, and were often connected with more egalitarian approaches to team development. Support for the expansion of these networks and connections, and advocacy for the agency of individuals occupying a range of roles and status categories, is important to the value system that underpins distributed leadership and therefore to its further development.</p>	
<ul style="list-style-type: none"> • Use CLIF and other project reporting to nurture collaboration by bringing together individuals working on projects with common themes and concerns from across multiple units. 	<p>Individual/Team</p>
<ul style="list-style-type: none"> • Raise awareness of the benefits of horizontal networks among formal leadership in order to improve support for these kinds of collaborations at the departmental and faculty level. 	<p>Institutional</p>
<ul style="list-style-type: none"> • Consider the establishment of leadership dialogue to identify needs and concerns of educational leaders occupying different roles and statuses on campus, e.g., graduate students, sessional instructors, pre-tenure faculty, late career faculty, those transitioning out of formal leadership roles. 	<p>Individual/ Institutional</p>
<ul style="list-style-type: none"> • Host events with a practical focus, but with plenty of opportunity for informal social interaction in order to enhance networking opportunities. Series may provide for more sustained opportunities for interaction, but must be considered valuable in order for informal leaders to devote time to them. This is a common structure for current CTL events, and should be continued and expanded. 	<p>Individual/ Institutional</p>

<ul style="list-style-type: none"> • Roxå, Mårtensson & Alveteg (2011) identify trust as a critical factor in the effectiveness of network crossing to effect change and knowledge circulation: this rather elusive factor is one that requires constant attention in all of our relations. 	Individual
<ul style="list-style-type: none"> • Further explore the use of network mapping as an approach to tracking and assessing network growth should be explored across multiple projects and at multiple levels (individual, by department, by theme, over time, etc.). 	Institutional/ Team
5. ADVOCATE FOR AND SUPPORT IMPROVED DECISION-MAKING	
Focus	
<p>As both the research literature and our study indicate, one of the challenges of blended models of leadership is co-ordination and coherence. Given also the cyclical nature of formal leadership in institutions and its impact on continuity and sense of institutional history, the potential for disconnect, miscommunication, and conflict around ongoing initiatives, expectations, and priorities is considerable despite everyone's best intentions.</p>	
<ul style="list-style-type: none"> • Integrate professional development for formal and informal leadership where possible to improve mutual awareness and discourse. 	Individual/ Institutional
<ul style="list-style-type: none"> • Create systematic approaches to enhancing departmental knowledge of the degree to which educational initiatives are institutionally valued, troubleshoot should challenges arise, and identify how these are “win-win” for departments. 	Departmental
<ul style="list-style-type: none"> • Advocate for further engagement of informed and experienced distributed leadership figures (such as teaching leadership chairs) in policy formation and re-design at the institutional level. 	Institutional
<ul style="list-style-type: none"> • Create advocacy and feedback channels for department heads regarding EELI and other educational initiatives on campus, so that these projects are effectively contextualized for them, and so that those managing EELIs receive input regarding departmental perceptions of such projects. 	Departmental
<ul style="list-style-type: none"> • Use forums and other kinds of dialogue to identify barriers and hot points in policy and procedure that might be effectively addressed through governance sub-committees and keep those communication channels open. 	Departmental/ Institutional
<ul style="list-style-type: none"> • Work proactively with those pursuing educational leadership initiatives on their own communications strategies and messaging. 	Individual
<ul style="list-style-type: none"> • Provide opportunities for those in formal leadership roles to learn more about the role and nature of distributed leadership in universities. 	Individual/ Departmental/ Institutional

6. COORDINATION AND IMPROVED DATA COLLECTION REGARDING EELIS	FOCUS
<p>It is clear that the coordination of distributed leadership activities on campus, no matter how lightly managed, requires a more informed, data-driven sense of what is being accomplished, where the needs are, and where there is potential for further growth. At the moment, those supporting these programmes have a limited and often anecdotal sense of the impact and effectiveness both of individual projects and of the programmes as a whole. Seeking to create a more systematic and cross-campus approach is ground-breaking and will require a sustained period of consultation, experimentation, and iterative cycles of dialogue and improvement. It is critical that the management of the process does not become a burden on the leaders in question or other staff: as their engagement is generally purely voluntary, goodwill is critical, and whatever tools we put in place must be seen as valuable to them (Trowler, Saunders, & Knight, 2003). We are therefore suggesting the exploration of a relatively automated approach, which incentivizes reporting as an element of project identification for potential further development and facilitates data collection through access to and support of common data collection instruments often used in teaching and learning initiatives.</p>	
<ul style="list-style-type: none"> • Establish a more consistent repertoire of data collection tools in order to create more consistent data sets that can be used, optimally at all levels of decision-making, to evaluate the impact of projects. 	<p>Individual/Team/ Department/ Institutional</p>
<ul style="list-style-type: none"> • Develop and pilot models for flexible but coordinated EELI reporting that include indicators chosen by project leaders from a range of possibilities: this will provide a degree of consistency, but also the flexibility to match the indicators more accurately with the type of initiative. 	<p>Individual/Team</p>
<ul style="list-style-type: none"> • Advocate for and support better and more systematic access to student success data through reporting from the Registrar’s Office and Information Technology Services. 	<p>Institutional</p>
<ul style="list-style-type: none"> • Improve reporting on EELI projects through the expansion of the existing application submission interface to include final reporting and information-gathering tools such as six-month, one-year, and two-year surveys of grantees to track outcomes, and information provision and data gathering from department chairs of departments where projects have taken place. Final reporting should include information about outcomes for students, but also outcomes for students involved as RAs or in other capacities on projects. Student input should also be solicited. This information can be to a degree automated and amalgamated across projects and programmes for ease of use. 	<p>Institutional (CTL)</p>
<ul style="list-style-type: none"> • Annual educational leadership forums should be continued as critical information-gathering opportunities: these might be expanded into sub-categories over time. 	<p>Institutional</p>
<ul style="list-style-type: none"> • It may also be of benefit to disaggregate these data to examine patterns with regard to different populations such as pre-tenure, post-tenure, sessional instructors, graduate students, etc. 	<p>Institutional</p>
<ul style="list-style-type: none"> • Dedicate a portion of a CTL staff member’s time specifically to coordinating, tracking and promoting educational leadership initiatives such as CLIF: if necessary, reducing the number of grants slightly to support the hiring of a student to support these efforts should be explored. 	<p>Institutional (CTL)</p>

► Next Steps at the University of Windsor

This report provides an extensive list of future actions and directions based on the research literature and our own investigation and experience at the University of Windsor. However, it would be constructive at this point to identify a modest number of priorities and actions that we can undertake in the short term. These have been selected based on a realistic evaluation of the scope, financial and resource allocations, and administrative mandate involved in bringing the initiative to fruition. Our current objectives:

- Communicate the findings of this study to senior academic administration at the University, and seek to establish an ongoing dialogue regarding strategic planning to support embedded educational leadership development.
- Plan and implement a 2015 Educational Leadership Forum involving leaders from the University of Windsor campus and across Ontario.
- Take steps to identify similar initiatives designed to promote distributed educational leadership at other Ontario universities.
- Convene a strategic planning session of Teaching Leadership Chairs and invite their participation in the further development of embedded educational leadership based on the findings of the study.
- Establish a resource base for the monitoring, tracking, and evaluation of outcomes of CLIF. This initiative will serve as a model for expanded application of performance measures and data gathering regarding embedded educational leadership initiatives more generally.
- Develop an educational leadership website at the University of Windsor with a view to communication of activities, provision of tools for educational leaders, and the publicizing of a variety of opportunities for educational leaders.
- Take steps towards the development and launch of a University of Windsor Educational Leadership Award to complement the many existing teaching excellence awards on campus.
- Disseminate the results of this study and further information gathering and exchange through regional, national, and international conferences such as the Windsor-Oakland Teaching and Learning Conference, the Michigan SoTL Roundtable, the Educational Developers' Caucus, and the annual conference of the Society for Teaching and Learning in Higher Education.

All of these initiatives, as well as other possibilities, will be systematically reviewed as a part of our overall plan to develop a responsive embedded educational leadership network at the University. One element of this consultation will take place at the 2015 University of Windsor Leadership Forum, which will provide us with the opportunity to revisit and prioritize these recommendations in order to better distill and filter these possibilities across a variety of stakeholder groups.

There are a number of important factors impacting embedded educational leadership on campus that can only be addressed through institutional funding allocations and the involvement of senior

administration and other stakeholders. These include:

- Institutional adoption of the premise of distributed educational leadership as an element of strategic planning, determination of eligibility for internal funds, workload determinations, etc.
- Recognition by the academic community that educational change is impacted by peer collaboration and review. This means that the department heads and deans would encourage and promote classroom observation and subsequent dialogue as legitimate and powerful enhancement tool for teaching and learning.
- Greater engagement of experienced embedded educational leaders in policy development and re-development.
- A wholesale review of internal communications strategies to inform improved knowledge circulation and transfer.
- Formal acknowledgment of educational leadership as an element of scholarly activity and professorial professional responsibilities.
- Reconsideration of promotion and tenure processes to include greater recognition of educational practice and educational leadership.
- Integrated professional development opportunities for formal and informal leaders on campus as well as for project teams.

► Opportunities for the Growth of the Distributed Leadership Model in Ontario

Although the University of Windsor is committed to sharing the knowledge derived from this internal review and subsequent initiatives with other universities and institutions across Ontario, this is a preliminary study, and it is clear that in other jurisdictions, leadership in post-secondary institutions has been a prime area of inquiry and development for more than a decade. If the university sector is to fully realize the potential of its academic citizenship, a more robust, well-informed, and expanded emphasis on leadership development is required, including:

- Targeted funding and grants focused on educational leadership.
- Replication of these approaches to studying educational leadership at other institutions in the province.
- Establishment of opportunities for exchange and collaboration among educational leaders from multiple institutions with a more explicit focus on leadership capacity development.
- Establishment of an Ontario Educational Leadership Network, and provincial educational leadership awards.
- Establishment of opportunities for professional development related to distributed educational leadership at the provincial level.

► Opportunities for Collaboration in the International Context

There are a number of international studies that offer long-term promise in terms of both expanding and maintaining a thriving distributed leadership culture in universities. In the long-term, tools from these projects should be further explored: exploration of collaboration with these research teams to create international initiatives in the area of distributed leadership may also be considered.

Jones et al. (2014) established benchmarks for the evaluation of distributed leadership against previously determined reference points based on past practices in Australian universities. These are intended as “best practice” benchmarks, and employ a mix of performance indicators derived from publicly available information and activity-based benchmarking, and can be used either in relation to specific institutional activities or as a proxy for the entire institution’s performance (RMIT University, 2014). A recent report highlights the potential of the evidence-based benchmarking framework, but also notes that the practice and principles of distributed leadership require more research before specific indicators can be identified and employed. Previously, the same team developed the Action Self-Enabling Reflection Tool, which provides individuals and institutions with tools to identify actions needed to move towards a more distributed leadership approach (Appendix D). These frameworks and related tools might be adapted to the Canadian context and provide a way to extend the impact studies to include international perspectives (See Jones et al., 2014).

The Australian Teaching Standard Framework (TSF) (Sachs, 2012), while not a model for evaluating either EELI or distributed leadership, provides a potentially useful approach to the documentation of collective practice in the interests of assessing the leadership landscape at an institution. The TSF offers departments and institutions a tool that enables them to comprehensively assess teaching quality, using a systematic but holistic approach. The online tool is built around a series of standards and criteria: individuals use quantitative and qualitative data to support a narrative of programmatic or institutional practice and student experience. Although the structures involved are clearly not transferable, the use of a scalable but collective institutional model intended to capture a system of interacting factors and to identify strengths, weaknesses, and needs within that system is a compelling possibility. In effect, it produces a collective dossier documenting practice, with the explicit intention of integrating quantitative and qualitative data so that each is read in the context of the other in order to create a more informative whole. While a tool of this nature is far beyond our reach at the moment, the potential such an approach offers for assessing complex phenomena in more nuanced and potentially effective ways is considerable. Grabove et al. (2012) calls for more integrated, time-efficient, managed, and supported ways to implement assessment of teaching improvement practices: tools such as this may in the long run be worth pursuing, but, given the scope of such projects, is more likely to occur on an inter-institutional basis.

References

- Astin, A. & Astin, H. (2000). *Leadership reconsidered: Engaging higher education in social change*. Battle Creek: Kellogg Foundation.
- Australian Learning and Teaching Council [ALTC]. (2011). *A guide to support Australian university teaching and learning centres in strategic leadership for teaching and learning enhancement*. Deakin University. Retrieved from www.deakin.edu.au/itl/research-eval/projects/strat-lead.php
- Baets, W. (2006). *Complexity, learning, and organizations: A quantum interpretation of business*. Abingdon (UK): Routledge.
- Ball, S. (2007). Leadership of academics in research. *Educational Management, Administration and Leadership*, 35(4), 449-477.
- Bamburgher, M., Rugh, J., & Mabry, L. (2012). *Real world evaluation (2nd ed.)*. Los Angeles: Sage Publications.
- Barbuto, J. & Wheeler, D. (2007). *Becoming a servant leader: Do you have what it takes?* NEB Guide G1481, University of Nebraska. Retrieved from <http://www.ianrpubs.unl.edu/epublic/live/g1481/build/g1481.pdf>
- Barling, J., Weber, T., & Kelloway, E. (1996). Effects of transformational leadership training on attitudinal financial outcomes: A field experiment. *Journal of Applied Psychology* 81(6), 872-832.
- Bass, B. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics* (Winter), 19-31.
- Becher, T. & Trowler P. (2001). *Academic tribes and territories*. Buckingham: The Society for Research into Higher Education and Open University Press.

- Birnbaum, R. (1992). *How academic leadership works: Understanding success and failure in the college presidency*. San Francisco: Jossey Bass.
- Blakemore, P. & Kandiko, C.B. (2012). *Strategic curriculum change: Global trends in universities*. Abingdon: SRHE/Routledge.
- Bluteau, P. & Krumins, M.A. (2008). Engaging academics in developing excellence: releasing creativity through reward and recognition. *Journal of Further and Higher Education*, 32(4), 415-426.
- Bolden, R., Petrov, G., & Gosling, J. (2009). Distributed leadership in higher education: Rhetoric and reality. *Educational Management Association and Leadership*, 37(20), 257-277.
- Bolden, R., Petrov, G., & Gosling, J. (2008). *Developing collective leadership in higher education, final report*. London: Leadership Foundation for Higher Education.
- Bolden, R., Gosling, J., O'Brien, A., Peters, K., Ryan, M., & Haslam, A. (2012). Academic leadership: Changing conceptions, identities and experiences in UK higher education. *Leadership Foundation for Higher Education*, 3(4).
- Borden, V. & Bottrill, K. (1994). Performance indicators; Histories, definitions and methods. *New Directions for Institutional Research*, 82, 5-21.
- Boulos, P. & Wright, W.A. (2011, February). *Institutionally-funded teaching and learning research and development grant programs (impact for early career faculty)*. Presentation at the annual conference of the Educational Developers Caucus, Sault Ste. Marie.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brew, A. & Ginns, P. (2008). The relationship between engagement in the scholarship of teaching and learning and students' course experiences. *Assessment & Evaluation in Higher Education*, 33(5), 535-545.
- Brown, F.W. & Moshavi, D. (2002). Herding academic cats: Faculty reactions to transformational and contingent reward leadership by department chairs. *Journal of Leadership Studies*, 8(3), 79-94.
- Bruke, J.C. (1998). Performance funding: Arrangement and answers. *New Directions of Institutional Research*, 97, 85-90.
- Bryman, A. (2007). *Effective leadership in higher education. Summary of findings*. London: Leadership Foundation for Higher Education.

- Burgoyne, J., Mackness, J., & Williams, S. (2009). Baseline study of leadership development in higher education. *Leadership Foundation for Higher Education*, 2(3).
- Cave, M., Hanney, S., Henkel, M., & Kogan, M. (1991). *The use of performance indicators in higher education: The challenges of the quality movement* (3rd ed.). London: Kingsely.
- Chalmers, D. (2008). Indicators of university teaching and learning quality. Australian Learning and Teaching Council, Australia.
- Chalmers, D. (2007), *A review of Australian and international quality systems and indicators of learning and teaching*, Carrick Institute for Learning and Teaching in Higher Education, Australia.
- Chalmers, D. & Thomson, K. (2008). *Snapshot of teaching and learning practice in Australian higher education institutions*. Carrick Institute for Learning and Teaching in Higher Education Ltd, Sydney, NSW.
- Chism, N.V.N. (2007). *Peer review of teaching: A sourcebook* (2nd ed.). Bolton, MA: Anker.
- Church, C., & Rogers, M. (2006). Designing for Results: Integrating Monitoring and Evaluation in Conflict Transformation Programs. Search for Common Ground, Washington.
- Clark, B.R. (1998). *Creating entrepreneurial universities*. Paris and London: IAU and Elsevier Science.
- Clark, I. & Norrie, K. (2013). Research and reluctance in improving Canadian higher education. In P. Axelrod et al. (Eds.), *Making policy in turbulent times: Challenge and prospects for higher education* (pp. 189-220). Montreal and Kingston: McGill-Queen's Press.
- Cockburn, N. (2011). Teaching chairs: A tangible step toward improving teaching quality on Ontario campuses. Ontario Undergraduate Student Alliance. Retrieved from <http://www.ousa.ca/2011/12/07/teaching-chairs-a-tangible-step-toward-improving-teaching-quality-on-ontario-campuses-%E2%80%93-by-natalie-cockburn-december-7-2011/>
- Cohen, P.A. & McKeachie, W.J. (1980). The role of colleagues in the evaluation of teaching. *Improving College and University Teaching*, 28(4), 147-154.
- Collinson, D. & Collinson, M. (2009). Blended leadership: Employee perspectives of effective leadership in the UK further education sector. *Leadership*, 5(3), 365-380.
- Council of Ontario Universities [COU]. (2012). Beyond the sage on the stage: Innovative and effective teaching and learning at Ontario universities. Toronto: Council of Ontario Universities. Retrieved from http://www.cou.on.ca/news/news-pdfs/cou_beyond_the_sage_on_the_stage--teaching-and-le

- Cox, M. & Richlin, L. (Eds.). (2004). Building faculty learning communities. *New Directions for Teaching and Learning*, 97. San Francisco: Jossey-Bass
- Curchod, G. (2014, May). *Impact d'un fond d'innovation pédagogique sur l'enseignement*. Paper presented at the conference of the l'Association internationale de pédagogie universitaire (AIPU).
- Creswell, J. (2002). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle River (NJ): Pearson.
- Dean, R. (2008). Unravelling the fabric of the academe: The managerialist university and its implications for the integrity of academic work. In J. Turk (Ed.), *Universities at risk: How politics, special interests, and corporatization threaten academic integrity*. Ottawa: James Lerner.
- Dearlove, J. (1995). Collegiality, managerialism, and leadership in English universities. *Tertiary Education and Management* 1(2), 161-169.
- Deepwell, F. & Buckley, C. (Eds.). (2013). *SEDA small grants: Celebrating the scholarship of educational development*. SEDA Special 35.
- De Geus, A. (1988). Planning as learning. *Harvard Business Review*, 66(2), March/April, 70-4.
- Dexter, B. & Seden, R. (2012). "It's really making a difference:" How small-scale research projects can enhance teaching and learning. *Innovations in Education and Teaching International*, 49(1), 83-93.
- DeZure, B. (1999). Evaluating teaching through peer observation. In P. Seldin (Ed.), *Changing practices in evaluating teaching: A practical guide to improved faculty performance and promotion/tenure decisions* (pp. 71-96). Bolton, MA: Anker Publishing.
- Diamond, R. (2002). Some final observations. In R. Diamond (Ed.), *Field guide to academic leadership*. San Francisco: Jossey Bass.
- Drew, S. & Klopper, C. (2014). Evaluating faculty pedagogic practices to inform strategic academic professional development: A case of cases. *Higher Education*, 67(3), 349-367.
- Eansor, D. (2012). *Teaching chairs and teaching chair programs: A report to the Vice-Provost, Teaching and Learning*. Windsor (ON): University of Windsor.
- Elmore, R.E. (2000). *Building a new structure for school leadership*. Washington: Albert Shanker Institute.
- Fanghanel, J. (2007). Teaching excellence in context: drawing from a socio-cultural approach. In A.

- Skelton (Ed.), *International perspectives on teaching excellence in higher education: Improving knowledge and practice*. Abingdon: Routledge.
- Flinn, K. (2011). *Making sense of leadership development: Reflections on my role as a leader of leadership development*. Dissertation. University of Hertfordshire. Retrieved from <http://uhra.herts.ac.uk/bitstream/handle/2299/13884/08192041%20Flinn%20Kevin%20-%20-%20-%20final%20DMan%20submission.pdf?sequence=1>
- Flinn, K. & Mowles, C. (2014). *A complexity approach to leadership development: Developing practical judgment. Stimulus paper*. London: Leadership Foundation for Higher Education.
- Fullan, M. & Scott, G. (2009). *Turnaround leadership for higher education*. San Francisco: Jossey-Bass.
- Gardiner, L. (2005). Transforming the environment for learning: A crisis of quality. *To Improve the Academy*, 23, 3-23.
- Gentle, P. (2014). *Engaging leaders: The challenge of inspiring collective commitment in universities*. New York, NY: Routledge.
- Gertler, M. (2003). Tacit knowledge and the economic geography of context, or the indefinable tacitness of being (there). *Journal of Economic Geography*, 3(1), 75-99.
- Gibbs, G. (2001). *Analysis of strategies for learning and teaching: Research report 01/37a*. Bristol: Higher Education Funding Council for England.
- Gibbs, G., Holmes, A., & Segal, R. (2002). *Funding innovation and disseminating new teaching practices*. Milton Keynes: The Open University.
- Gibbs, G., Knapper, C., & Picinnin, S. (2008). Disciplinary and contextually appropriate approaches to leadership of teaching in research-intensive academic departments in higher education. *Higher Education Quarterly*, 62(4), 416-436.
- Gosling, D. (2001). Educational development units in the UK – What are they doing five years on? *International Journal for Academic Development*, 6(1), 74-90.
- Gronn, P. (2011). Hybrid configurations of leadership. In A. Bryman, D. Collinson, K. Grint, B. Jackson, & M. Uhl-Bien (Eds.), *Sage handbook of leadership*. London: Sage.
- Guerra-López, I.J. (2008). *Performance evaluation: Proven approaches for improving program and organizational performance*. San Francisco: John Wiley & Sons, Inc.
- Gunn, V. & Fish, A. (2013). *Considering teaching excellence in higher education: 2007-2013: A literature*

review since the CHERI report 2007. The Higher Education Academy.

- Grabove, V., Kustra, E., Lopes, V., Potter, M., Wiggers, R., & Woodhouse, R. (2012). Teaching and learning centres: Their evolving role within Ontario colleges and universities. Toronto: Higher Education Quality Council of Ontario. Retrieved from <http://www.heqco.ca/SiteCollectionDocuments/TL%20Centres%20ENG.pdf>
- Graniero, P., Hamilton, B., & Cramer, K. (2014). SRI data aggregation and visualization: An evaluation of potential uses. Technical Report. Windsor: University of Windsor.
- Hallinger, P. & Heck, R. (1996). Reassessing the principals role in school effectiveness: A review of empirical research, 1980-1995. *Educational Administration Quarterly* 32(1), 5-44.
- Hamilton, B. & Graniero, P. (2013). *What is a legible university?* Retrieved from <http://legibleuniversity.org/what-is-a-legible-university/>
- HEQCO. (2013). *Quality: Shifting the focus. A report from the expert panel to assess the strategic mandate agreement submissions.* Toronto: Higher Education Quality Council of Ontario. Retrieved from <http://www.heqco.ca/SiteCollectionDocuments/FINAL%20SMA%20Report.pdf>
- Heath, C. & Heath, D. (2010). *Switch: How to change things when change is hard.* Toronto: Random House Canada.
- Heifetz, R.A. (1994). *Leadership without easy answers.* Cambridge: Belknap Press of Harvard University Press.
- Hénard, F. & Roseveare, D. (2012). *Fostering quality teaching in higher education: Policies and practices.* Institutional management in higher education (IMHE) guides for higher education institutions. Retrieved from <http://www.oecd.org/edu/imhe/QT%20policies%20and%20practices.pdf>
- Holt, D. et al. (2010). *Strategic leadership for institutional teaching and learning centres: Developing a model for the 21st century.* Australia: Australian Learning and Teaching Council. Retrieved from <http://www.deakin.edu.au/itl/assets/resources/research-eval/projects/strat-lead/itl0043-guide-final.pdf>
- Hoyle, E. & Wallace, M., (2006). *Educational leadership: Ambiguity, professionals, and managerialism.* SAGE.
- Hsu, C. & Sandford, B.A. (2007). The Delphi technique: Making sense of consensus. *Practical Assessment, Research & Evaluation*, 12(10), 1-8.
- Hubball, H. & Clarke, A. (2011). Scholarly approaches to peer-review of teaching: Emergent frameworks

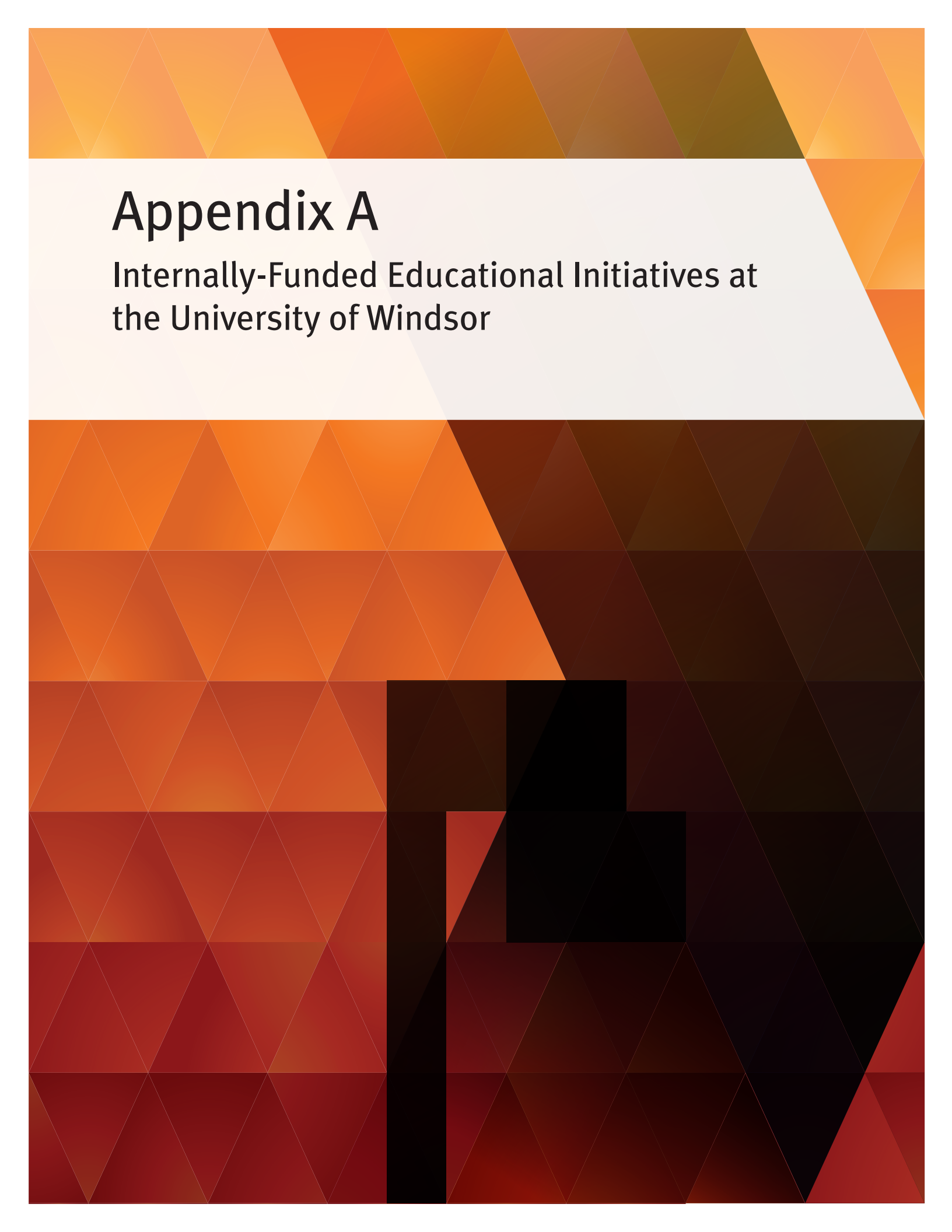
- and outcomes in a research-intensive university. *Transformative Dialogues Journal*, 4(2).
- Huber, M., & Hutchings, P. (2005). *The advancement of learning: Building the teaching commons*. San Francisco: Jossey-Bass
- Hultgren, D. (1989). Spheres of influence: Doing what you can do. *Training and Development Journal*, July, 69-70.
- Iqbal, I. (2013). Academics' resistance to summative peer review of teaching: Questionable rewards and the importance for student evaluations. *Teaching in Higher Education*, 18, 557-569.
- Jones, G. (2013, November). Three challenges for higher education policy and research. Paper presented at the International Higher Education Research and Policy Roundtable. Shanghai Jiao Tong University. Retrieved from www.oise.utoronto.ca/hec/UserFiles/File/.../Jones_Future_Research.docx
- Jones, C. & Esnault, L. (2004). *The metaphor of networks in learning: communities, collaboration and practice*. Presentation at the Networked Learning Conference 2004, Lancaster University. Retrieved from http://www.networkedlearningconference.org.uk/past/nlc2004/proceedings/symposia/symposium13/jones_esnault.htm
- Jones, S., Hadgraft, R., Harvey, M., Lefoe, G., & Ryland, K. (2014). *Evidence-based benchmarking framework for a distributed leadership approach to capacity building in learning and teaching*. Australia: Office for Learning and Teaching, Department of Education.
- Juntrasook, A., Nairn, K., Bond, C., & Spronken-Smith, R. (2013). Unpacking the narrative of non-positional leadership in academia: Hero and/or victim? *Higher Education Research and Development*, 32(20), 201-213.
- Keig, L. & Waggoner, M.D. (1994). Collaborative peer review: The role of faculty in improving college teaching. *ASHE-ERIC Higher Education Report*, 2. Washington, DC: George Washington University School of Education and Human Development.
- Kell, C. & Annetts, S. (2009). Peer review of teaching embedded practice or policy-holding complacency? *Innovations in Education and Teaching International*, 46(1), 61-70.
- Kember, D. (1997) Achieving a balanced quality portfolio: The relative costs of quality control and enhancement schemes. *International Journal for Academic Development*, 2(1), 75-85.
- Knight, P.T. & Trowler, P.R. (2001). *Departmental leadership in higher education*. Buckingham: SRHE and Open University Press.

- Kruse, K. (2013). What is Leadership? *Forbes*. Retrieved from <http://www.forbes.com/sites/kevinkruse/2013/04/09/what-is-leadership/>
- Kouzes, J. & Posner, B. (2003). *The leadership challenge*. New York: Jossey Bass Wiley.
- Kuh, G.D., Pace, C.R., & Vesper, N. (1997). The development of process indicators to estimate student gains associated with good practices in undergraduate education. *Research in Higher Education*, 38(4), 435-454.
- Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lumby, J. (2012). What do we know about leadership in higher education? The Leadership Foundation for Higher Education, Review Paper Series, University of Southampton.
- MacBeath, J. (2005). Leadership as distributed: A matter of practice. *School Leadership and Management*, 25(4), 349-366.
- Macfarlane, B. (2011). Professors as intellectual leaders. *Studies in Higher Education*, 36(1), 57-73.
- Mintzberg, H. (1998). *Covert leadership: Notes on managing professionals*. *Harvard Business Review*, 140-147.
- Morón-García, S. (2013). Investigating the impact of networks in academic life. *SEDA Small Grants: Celebrating the scholarship of educational development*. Eds. F. Deepwell and C. Buckley, SEDA Special 35. 33-36.
- Morris, C. & Fry, H. (2006). Enhancing educational research and development activity through small grant schemes: A case study. *International Journal of Academic Development*, 11(1), 43-56.
- Murphy, M. & Curtis, W. (2013). The micro-politics of micro-leadership: exploring the role of programme leader in English universities. *Journal of Higher Education Policy and Management*, 35(10), 34-44.
- Murphy, T., MacLaren, I., & Flynn, S. (2009). Toward a summative system for the assessment of teaching quality in higher education. *International Journal of Teaching and Learning in Higher Education*, 20(2), 226-236.
- Nimmo, A. & Littlejohn, A. (2009). Encouraging learning innovation: Recognising and rewarding good practice. *Practice and Evidence of the Scholarship of Teaching and Learning in Higher Education*, 4(1), 41-55.

- Nonaka, I., Toyama, R., & Hirata, T. (2008). *Managing flow: A process theory of the knowledge-based firm*. New York: Palgrave MacMillan.
- Parrish, D. & Lefoe, G. (2008). *The GREEN report: The development of leadership capacity in higher education*. Australian Learning and Teaching Council. CEDIR, University of Wollongong.
- Paton, R. & McCalman, J. (2000). *Change management: A guide to effective implementation*. Thousand Oaks: Sage.
- Posovac, E.J. & Carey, R.G. (2007). *Program evaluation: Methods and case studies (7th ed.)*. New Jersey: Pearson/Prentice Hall.
- Potter, M.K. & Kustra, E. (2011). The relationship between scholarly teaching and SoTL: Models, distinctions, and clarifications. *International Journal for the Scholarship of Teaching and Learning*, 5(1). Retrieved from <http://digitalcommons.georgiasouthern.edu/ij-sotl/vol5/iss1/23/>
- Ramsden, P. (1998). *Learning to lead in higher education*. New York: Routledge.
- Richardson, J.T.E. (1994). A British evaluation of the course experiences questionnaire. *Studies in Higher Education*, 19, 59-68.
- Riffe, D., Lacy, S., & Fico, F. (2014). *Analyzing media messages: Using quantitative content analysis in Research (3rd ed.)*. New York: Routledge.
- RMITUniversity.(2014).Retrievedfrom<http://emedia.rmit.edu.au/distributedleadership/?q=node/131> (p. 3-5).
- Rourke, L. & Anderson, T. (2004). Validity in quantitative content analysis. *Educational Technology Research and Development*, 52(1), 5-18.
- Rowe, K. (2004). Analysing & reporting performance indicator data: 'Caress' the data and user beware! ACER Paper for the Public Sector Performance & Reporting Conference, under the auspices of the International Institute for Research (IIR).
- Roxå, T. (2008, November). How does one change a university? A socio-cultural approach for improved teaching. Paper presented at the University of British Columbia, Vancouver. Retrieved from <http://ctl.ubc.ca/files/2010/08/Torgny-Roxa-PowerPoint-Presentation-11-28-08.pdf>
- Roxå, T. & Mårtensson, K. (2013). *Significant networks for educational development*. Retrieved at http://www.konferenslund.se/pp/CEQ_Roxa_Martensson.pdf

- Roxå, T. & Mårtensson, K. (2008). Significant conversations and significant networks: Exploring the backstage of the teaching arena. *Studies of Higher Education*. Retrieved from http://www.kuleuven.be/duo/_pdf/JournalClubArtikels.pdf
- Roxå, T., Mårtensson, K., & Alveteg, M. (2011). Understanding and influencing teaching and learning cultures at university: A network approach. *Higher Education* 62(1), 99-111.
- Scott, G., Coates, H., & Anderson, M. (2008). Learning leaders in times of change: Academic leadership capabilities for higher education. Australian Learning and Teaching Council. Retrieved from http://research.acer.edu.au/higher_education/3
- Silver, H. (2003). Does a university have a culture? *Studies in Higher Education*, 28(2), 157-169.
- Southwell, D. & Morgan, W. (2009). *Leadership and the impact of academic staff development and leadership development on student learning outcomes in higher education: A review of the literature*. Australian Learning and Teaching Council (ALTC), Queensland University of Technology.
- Spillane, J.P., Halverson, R., & Diamond, J.B. (2004). Towards a theory of leadership practice: a distributive perspective. *Journal of Curriculum Studies*, 36(1), 3-34.
- Sterman, J.D. (2006). Learning from evidence in a complex world. *American Journal of Public Health*, 96(3), 505-514. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1470513/>
- Stewart, G. (2006). A meta-analytic review of relationships between team design features and team performance. *Journal of Management* 32(1), 29-54
- Tagg, J. (2003). *The learning paradigm college*. San Francisco: Anker Publishing/Jossey-Bass.
- Trowler, P., Saunders, M., & Knight, P. (2003). *Change thinking, change practices*. A guide to change for Heads of Department, Programme Leaders and other change agents in Higher Education, LTSN Generic Centre.
- United Nations Development Program [UNDP]. (2000). Knowing the what and how: RBM in UNDP Technical Note. Retrieved from: www.undp.org/eo/documents/.../rbm/RBM-technical-note.doc
- United Nations Development Program [UNDP]. (2002). *Signposts of Development - RBM in UNDP: Selecting Indicators*, UNDP. Retrieved from <http://web.undp.org/evaluation/documents/methodology/rbm/indicators-Paper1.doc>
- Warglien, M. & Savoia, M. (2001). *Institutional experiences of quality assessment in higher education*

-
- *The University of Venice (Italy)*. Organization for Economic Co-operation and Development (OECD). Retrieved from <http://www.oecd.org/dataoecd/48/49/1871205.pdf>
- Weston, C. & Winer, L. (2009). *Reconceptualizing the impact of educational development work*. Paper presented at the Educational Developers Caucus, February 25, 2009. Oshawa: Durham College.
- Wilson, M. & Enns, E. (2010). *Can we do the impossible? Evaluating for impact*. Paper presented at the Educational Developers Caucus. Kamloops: Thompson Rivers University.
- Wright, A., & Hamilton, B. (2008, February). *On Canadian SoTL: Cultivating the fields of pedagogical practice*. Poster session presented at the annual meeting of the Educational Developers Caucus, Vancouver, BC.
- Wenger, E. (2009). Social learning capability: Four essays on innovation and learning in social systems. *Social Innovation*. Sociedade e Trabalho, Lisbon, Portugal, MTSS/GEP & EQUAL. Retrieved from http://ec.europa.eu/employment_social/equal_consolidated/data/document/Social%20Innovation.pdf
- Wenger, E. (2012). *Communities of practice: A brief introduction*. Retrieved from <http://wenger-trayner.com/wp-content/uploads/2012/01/06-Brief-introduction-to-communities-of-practice.pdf>
- Yuki, G. (2002). *Leadership in organizations*. Upper Saddle River (NJ): Prentice-Hall



Appendix A

Internally-Funded Educational Initiatives at
the University of Windsor

Date	Initiative/Support	Project Name	Project Leads	Funding	Description	Faculties	Keywords
2011/12	Strategic Priority Fund	Graduate Studies On-Line Course Development and Course Delivery Model	Darren Stanley and Glenn Rideout and Christopher J. Greig, Education; Erika Kustra, Centre for Teaching and Learning	\$50,000 One Time	The Faculty of Education is developing, designing, and delivering a number of new graduate-level courses that complement and/or supplement current course offerings. Specifically, this initiative develops offerings of two currently existing M.Ed courses in a fully on-line format and four additional on-line M.Ed courses.	Faculty of Education & Academic Development	Graduate Students; Online Learning; Course Development.
2011/12	Strategic Priority Fund	Broaden the Horizons: Teacher Education Reciprocal Program	Martina Lee, Political Science; Shijing Xu, Education	\$77,000 One each of two years, 2011/12 & 2012/13	This initiative enhances the three-year Teacher Education Reciprocal Learning Program between UWindsor and Southwest University (SWU) China. UW developed a program for twenty-two SWU teacher candidates visiting Windsor in September-December 2010. The program fully engaged the 22 SWU teacher candidates in the pre-service teacher education program by auditing courses; participating in school placements in six local elementary and secondary schools, and in "Classrooms On the Move" initiated by the Greater Essex County School Board with involvement of five schools; and participating in professional development seminars, field trips and other events. Reciprocally, SWU developed a program for UWindsor teacher candidates visiting Chongqing in May-June 2011, consisting of lectures on the Chinese education system and school education; seminars on comparing Chinese and Canadian school education and teacher education; school visits and placements; and field trips in Chongqing and its nearby multi-ethnic region.	Faculty of Education & Academic Development	Professional Development; International Experience; Education Students.
2011/12	Strategic Priority Fund	Global Education & Research for Development Initiative	Clinton Beckford and Andrew Allen, Education	\$44,000 One Time; \$22,000 for each of two years, 2011/12 & 2012/13	This initiative enables an international service learning experience for teacher candidates in the Faculty of Education who are participating in a project in Tanzania, East Africa. The specific project is organized in Singida, Tanzania, and is related to the educational experiences of orphaned and vulnerable children. It is a partnership between the University of Windsor, Faculty of Education, and the Singida Municipal Council, the local government authority.	Faculty of Education & Academic Development	Experiential Learning; International Experience; Education Students.
2012/13	Strategic Priority Fund	Broaden the Horizons: Teacher Education Reciprocal Program	Shijing Xu, Education	\$175,000, One-time funding over five years	This initiative supports a bid for external funding to expand an existing and successful three-year Teacher Education Reciprocal Learning Program between UWindsor and Southwest University (SWU) China: "Broaden the Horizons: Teacher Education Reciprocal Program".	Faculty of Education & Academic Development	International Experience; Professional Development.
2007/08	Centred on Learning Innovation Fund (CLIF)	Listening to Visible Minority Students: Voices of Our Ethnically, Culturally, and Linguistically Diverse Learners on Learning-Centred Practice	Shijing Xu and Zuochen Zhang, Education	N/A	Students can improve the qualities of their "acquisition, application and integration of knowledge" (To Greater Heights, 2003, p.6) when their personal, cultural and professional knowledge is valued. This research project develops and promotes learning-centred approaches based on what is experienced and appreciated personally, culturally, and professionally by the learners themselves, especially those who are visible minorities and/or those who do not speak English as their first language. The study is contextualized in the Faculty of Education, where 20 students participate in videotaped focus groups and/or individual interviews. The project generates ideas and insights that are constructive to building a learning-centred community that enhances the learning of the targeted student groups.	Faculty of Education & Academic Development	International Students; Student Experience; Learning-Centred Practices.
2008/09	Centred on Learning Innovation Fund (CLIF)	Collaborative Technologies as Enhancers of the First Year University Experience	Dragana Martinovic, Jelena Magliaro, Leddy Library; Kristina Verner, Centre for Smart Community Innovation; Timothy Pugh, Grand Erie District School Board	N/A	It is important for students to integrate practical understanding and acceptance of technology into their pre-service teaching programs. In order for education to evolve technologically, teacher candidates (TCs) should not be complacent observers but participants of the technology integration process starting from the first year of their university career. This study focuses on the educational use of information communication technologies (ICT) in the first year of the teacher education program, in the form of videoconferencing, Skype, cell phones, and SmartBoards. TCs at UWindsor use these technologies to have synchronous discussions with TCs at Nipissing University and observe live in-class teaching demonstrations in the Grand Erie District Public School Board schools. The development of TCs' technological literacy are portrayed through their first-hand encounters with ICT, and collaborative work with practicing teachers and teacher educators.	Faculty of Education & Academic Development	First-Year Students; First-Year Experience; Education Students; Collaboration; Technology Integration; Video Conferencing; Professional Development; Experiential Learning.
2014-2015	The Office of the Vice-Provost, Teaching and Learning	Teaching Leadership Chairs	Andrew Allen, Education	\$15,000 per year for three years	The primary areas of activity for this Chair are experiential service and learning, and developing aspects of the Global Education and Research Development Initiative (Tanzania), which aims to develop student experience profiles for employability and contribute to local and international communities.	Faculty of Education & Academic Development	Professional Development; Faculty; Leadership; Sessional Instructors; International Experience; Community Outreach.

2007/08	Centred on Learning Innovation Fund (CLIF)	Social Justice Education	Karen Roland, Education	N/A	Members of the Ontario teaching profession are held to a high standard of professional and ethical behaviour. During the experiential learning aspect of the pre-service teaching program, specifically the practicum placement in school classrooms, teacher candidates must not only be aware of these standards, but as members of the educational community they must demonstrate their understanding through their teaching practice. The social justice education vignettes created in this project provide an instructional tool to challenge teacher candidates through the discussion of social justice/equity topics in a nonthreatening manner, to engage in self-reflection, and to develop an understanding of the application of social justice education theory in practice, in accordance with the Ontario College of Teachers Ethical Standards and Standards of Practice for the Teaching Profession.	Faculty of Education & Academic Development	Experiential Learning; Professional Development; Social Justice Education.
2013	Open and Online Learning Strategic Development Grant	Certificate of Pedagogy of Online Learning	Yvette Daniel, Dragana Martinovic, Karen Roland, Zuoichen Zhang and Natalia Weibe, Education; Lorie Stolarчук, Centre for Teaching and Learning; Anna Galika, IT Services; Jelena Magliaro, International Students' Centre	\$25,000	This initiative developed a certification program to provide education to instructors for quality reflective e-teaching and learning that is community-centred, learning-centred, knowledge-centred, and assessment-centred (Anderson, 2004). The certificate in Pedagogy of Online Learning consists of four half-courses delivered in an online format with some synchronous communication.	Faculty of Education & Academic Development	Online Learning; Education Students.
2008/09	Centred on Learning Innovation Fund (CLIF)	First Year International Students' Expectations, Experiences and Challenges at the University of Windsor	George Zhou and Zuoichen Zhang, Education; Guoying Liu, Luddy Library; Enrique Chacon, International Students' Centre	N/A	This study explores perspectives, expectations, and experiences of the first-year international students studying at UWindsor, paying special attention to the challenges these students face in the process of acculturation. Findings from quantitative and qualitative data collected via surveys, focus groups, and individual interviews help generate useful suggestions for academic and administrative units on campus, such as the International Students' Centre, so that services can be provided to best meet the needs of international students.	Faculty of Education & Academic Development; Student Services	International Students; Diversity; First-Year Students; Student Experience.
2011/12	Centred on Learning Innovation Fund (CLIF)	Beginning Teachers: Storytelling for Professional Practice	Karen Roland and Clinton Beckford, Education	N/A	Success as a beginning teacher is directly related to effectively engaging in professional practice. This open learning project builds upon the success of the Professional Practice Tutorial for Beginning Teachers by providing students with the ability to interact with text and video depictions based on experiential knowledge from the field, providing a nuanced description of professionalism in practice. The project improves teaching and learning by engaging teacher candidates in understanding the standards of the teaching profession, applying this knowledge in practice through storytelling that uses text and video vignettes. The project developed online learning resources to couple the existing online, anonymous, Professional Practice Tutorial for Beginning Teachers with peer-developed video vignettes. Recent graduates from the BEEd program conducted focus group sessions with their peers, wrote case studies from the shared stories, and wrote video scripts and tutorial questions for video vignettes. Storytelling for professional practice allows teacher candidates to critically engage in personal reflection concerning the application of the Ontario College of Teachers Ethical and Professional Standards of Practice. Data collected from the online tutorial site ascertains student response and completion of the tutorial. The project provides students with the opportunity to envision the intersection of what professional practice means to them personally, and as a member of the teaching profession.	Faculty of Education & Academic Development	Online Learning; Education Students; Storytelling; Professional Development.
2009/10	Centred on Learning Innovation Fund (CLIF)	Experiential Learning Through a Mentor-Based Resiliency Intervention for "At-Risk" Youth in Urban Secondary Schools	Geri Salinithi, Education; Victoria Paraschak, Kinesiology	N/A	This project created a video-documentary of an existing mentoring program from the perspective of the mentors. The program focuses on mentor-based relationships and a resiliency intervention model using school, community, and outdoor settings. Participants include "at-risk" high school students, teacher candidates in the LEAD program, volunteer kinesiology student interns, and student success teachers in Windsor-Essex County. The video is used to assess the mentor role and the program's learning outcomes.	Faculty of Education & Academic Development; Faculty of Human Kinetics	Experiential Learning; Education Students; Mentorship; Secondary Students.
2011/12	Strategic Priority Fund	Bachelor of Engineering Technology (BEEngTech)	N/A	\$30,000, One Time	This is a continuation of the program development initiative "Development of a Bachelor of Engineering Technology (BEEngTech) Degree Program". The program provides three-year technology diploma holders from any recognized college in Canada with a university-level experience. It enables the BAsc students to interact with the new stream who have considerable hands-on experience from their college education. At the same time, it expands the knowledge of the BEEngTech recruits by providing more in-depth education in engineering.	Faculty of Engineering	Program Development; Credit Transfer; College Students; Undergraduate Students; Community Outreach.

2011/12	Strategic Priority Fund	Developing an Interdisciplinary Program in Engineering - Integrated Engineering and Arts	N/A	\$59,950, One Time	This initiative develops an interdisciplinary program rooted in the design, problem solving, and systems thinking tools employed in Engineering, but incorporating approaches, problems and issues from multiple disciplines. Students in this program learn to apply engineering, scientific, humanistic and social science tools and principles to address highly complex social and business problems, employing the complex interacting elements of systems with indefinite boundaries in a global context. Graduates from this program understand both complex technological processes and pertinent societal and business concerns. The program's interdisciplinary approach attracts a population of students not typically drawn to the study of engineering.	Faculty of Engineering	Undergraduate Students; Interdisciplinary; Program Development; Multidisciplinary.
2010/11	Strategic Priority Fund	Engineering Youth Outreach Program	Edwin Tam, Engineering	\$61,720 one-time	Over 18 months, the Faculty of Engineering and the University benefitted tremendously from the Ontario Youth Science Technology Outreach Program (YSTOP). This program was funded by the Provincial Government to inspire young adults to choose a career in Science and Technology. YSTOP funding has enabled the University to interact and engage with Windsor-Essex County high school students and their teachers. The WINONE Office for First Year Engineering, which helps oversee recruitment and retention initiatives, has integrated YSTOP extensively into its ongoing activities. The Provincial Government has stopped YSTOP funding, and this initiative acts as bridge funding until further government funding is resumed.	Faculty of Engineering	Secondary Students; First-Year Experience; Community Outreach.
2011/12	Strategic Priority Fund	Bachelor of Engineering Science	Mehrdad Saif, Engineering	\$31,320, One Time	This initiative develops a new joint Science and Engineering program where students take the core courses within both Faculties for the first two years. At the end of the second year, students decide whether to pursue Engineering or Science for the final two years. Regardless of which Faculty they choose, they go through intensive and challenging training which prepares them for graduate school. Implementation of this new program results in an enhanced ability to recruit top, multi-talented high school students. The pool of such talented and high-calibre students inspires our faculty members and challenges them to raise the bar in their teaching designs.	Faculty of Engineering; Faculty of Science	Program Development; Secondary Students; Undergraduate Students.
2012/13	Strategic Priority Fund	Engineering Youth Outreach Program	Mehrdad Saif, Engineering	\$100,000, One-time funding over two years	This investment supports the Faculty of Engineering Outreach Program, which promotes Engineering programs to high school students in Windsor-Essex County while involving the University's Engineering students in valuable, out-of-classroom teaching and learning activities.	Faculty of Engineering	Community Outreach; Mentorship; Secondary Students; Undergraduate Students.
2010/11	Centred on Learning Innovation Fund (CLIF)	A Strategy to Evaluate Teaching and Learning Experience by Employing Engineering Concepts	Daniela Pusca, Mechanical, Automotive, & Materials Engineering	N/A	In this initiative, faculty and teaching assistants use engineering tools and concepts as assessment strategies in order to improve the quality of the first year design course. Improvements are required not only by changes in the curriculum, but also by the opportunities that will be available for the instructor and for the students in the new Centre for Engineering Innovation (CEI)-IPads. The engineering concepts and principles usually used to improve the quality and productivity in industrial settings are employed in this case to identify the best teaching and learning methods and techniques, and to assess their effectiveness in achieving the course's educational objectives and learning outcomes. Collaborative reflection plays an important role in shaping and assessing teaching approaches, which are initially investigated using the Product Design Specifications (PDS) document, morphological charts, and the decision matrix (DM). After the course design is finalized, the quality of the proposed teaching methods is assessed using Quality Function Deployment (QFD). This study provides a clear methodology to employ specific engineering concepts and techniques to improve the quality of the instructional program, in the context of the use of new technology.	Faculty of Engineering	Faculty, Teaching Assistants; First-Year Students; Course Development; Technology Integration.
2011/12	Centred on Learning Innovation Fund (CLIF)	Edible Manufacturing Learning	Jill Urbanic and Victoria Townsend, Industrial & Manufacturing Systems Engineering	N/A	In engineering education outreach, high school students commonly ask "What do industrial engineers do?" and "What is manufacturing?" These questions are challenging to answer, especially for industrial engineering, which focuses on systems integration and optimization in addition to design and manufacturing activities. Hands-on learning experiences can open for students a broader view of manufacturing and of being an industrial engineer. This initiative uses a desktop (portable) rapid prototyping (RP) machine (fab@home) for outreach activities, and for experiential learning in appropriate undergraduate engineering classes. The fab@home machine uses a computer-aided design model as direct input to build a component by depositing layers of material. A component can be built with many materials, including food items (cheese, peanut butter, chocolate, etc.) as well as more traditional non-edible materials such as silicone. Functional trials establish the most usable materials, which are used to develop experiential learning modules for the appropriate audiences and outreach activities.	Faculty of Engineering	Community Outreach; Secondary Students.

2014-2015	The Office of the Vice-Provost, Teaching and Learning	Teaching Leadership Chairs	Zbigniew Pasek, Industrial & Manufacturing Systems Engineering	\$15,000 annually for three years	The primary areas of activity for this Chair include blended learning in a flipped classroom, in order to make more efficient use of class time; creating an integrative platform for entrepreneurship and interdisciplinarity with colleagues in the Odeette School of Business; and the creation of interdisciplinary, team-taught graduate courses.	Faculty of Engineering	Professional Development; Faculty Leadership; Sessional Instructors; Blended Learning; Flipped Classroom; Business Students; Interdisciplinary; Graduate Students; Course Development; Team Teaching; Entrepreneurship.
2010/11	Strategic Priority Fund	Development of a Bachelor of Engineering Technology Program (BEng Tech) Degree Program	Nader Zamani-Kashani, Mechanical, Automotive, & Materials Engineering	\$51,000 one-time	This new degree program provides three-year technology diploma holders from any recognized college in Canada with a university-level experience. It enables the BASc students to interact with the new stream who have considerable hands-on experience from their college education. The implementation of the BEng Tech degree is expected to increase enrollment, both domestic and international, while helping to meet objectives of the BASc and the Graduate program. This funding serves as seed money with the intent that the ongoing program will fund all costs of the program. As noted in Open Ontario, initiatives that support credit transfer are encouraged.	Faculty of Engineering	Program Development; Credit Transfer; College Students; Undergraduate Students; Community Outreach.
2010/11	Strategic Priority Fund	E-Learning Initiative	Mehrdad Saif and Maher Sid-Ahmed, Electrical & Computer Engineering	\$50,000 one time funding	This project supports the continued development of an online tool that facilitates video conferencing for distance learning education. It provides more flexible degree completion pathways to serve students, supports continued research in Engineering in this area, and promotes the development of a more robust set of courses and programs available for electronic delivery.	Faculty of Engineering	Online Learning; Video Conferencing; Course Development.
2009/10	Centred on Learning Innovation Fund (CLIF)	Facilitating Student Engagement: Teaching Industrial Health and Safety (IH&S) With Cases	Fouzia Baki, Waguih ElMaraghy and A. Ziout, Industrial & Manufacturing Systems Engineering	N/A	The case method is an effective way to enhance student learning (Kunselman and Johnson, 2004), and can create deep learning during labs. This project develops reusable worksheets containing cases, questionnaires, databases and problems that are in multimedia format, including video, for Industrial Health and Safety (IH&S) labs. It follows from a first stage of revising the lab component of the course. Rather than asking students to answer direct questions from materials that were presented to them in previous lecture sessions, students examine related cases in order to increase effort, and consequently, engagement. From students' feedback, we learned that students like this approach. This motivated the development of an electronic workbook containing reusable cases for IH&S labs. The cases are based on real situations, gathered by reviewing text books, accident reports, newspapers, periodicals, etc. The cases are built into the online CLEW site for the course. The process of case design, the impact observed within a third year engineering course, and lessons learned are valuable to other courses implementing a case-based learning approach.	Faculty of Engineering	Student Engagement; Student Experience.
2007/08	Centred on Learning Innovation Fund (CLIF)	Developing Assessment Methods for Co-operative Education Learning Outcomes	Jennifer Johrendt and Derek Northwood, Mechanical, Automotive & Materials Engineering; Karen Benzinger, Centre for Career Education; Geit Salihiti, Education; Arunita Jaekel, Computer Science	N/A	UWindsor's Centre for Teaching and Learning offers support for the development of learning outcomes for all of the University's learning-centred programs. In a ground-breaking effort, the Centre for Career Education is implementing learning outcomes methods for its cooperative education programs at the junior, intermediate, and senior levels. This interdisciplinary research project focuses on the engineering and computer science cooperative education programs. Reflective surveys of graduates from the cooperative education program, and examination of the progress of current students, are used to develop assessment methods that measure achievement of learning outcomes. These measures provide necessary feedback for revising current implemented learning outcomes and for the program's continual development.	Faculty of Engineering; Student Services; Faculty of Education & Academic Development; Faculty of Science	Cooperative Education; Program Development; Learning Outcomes; Learning-Centred Practices; Assessment Methods.

2010/11	Centred on Learning Innovation Fund (CLIF)	Alternative Course Assessment for Continuous Instructional Improvement and Student Engagement	Zbigniew Pasek, Industrial & Manufacturing Systems Engineering; Paul Rousseau, Political Science	N/A	Curriculum development guidelines require courses to have defined objectives, outcomes and assessment tools. Such a view, while consistent with generally accepted instructional and institutional aims, is not necessarily aligned with the students' view. Students often treat outcomes as external expectations to which they need to conform, rather than embrace them as reflecting their own needs. It is thus important to close the gap by exploring the students' own reflective views, and use such information for informed course redesign. This project reviews best practices in instructional design assessment (IDA) systems, including current usage of IDA at UWindsor. The project also creates student survey instruments, enabling collection of data on the students' learning process in a course, leveraging their personal perspective. The surveys ask questions such as, "What did you learn in this course and how do you know you did it?" and are framed within the confines of the course objectives and outcomes. Such an alternative assessment process also has potential to increase students' professional self-awareness.	Faculty of Engineering, Faculty of Arts, Humanities & Social Sciences	Student Engagement; Best Practices; Learning Outcomes; Assessment Methods.
2012/13	Strategic Priority Fund	Development of Engineering Innovation, Management, and Entrepreneurship	Mehrdad Saif, Engineering; Allan Conway, Business	\$207,400. One-time funding over two years	The Faculty of Engineering and the School of Business are collaboratively developing innovative courses and joint degree programs, integrating engineering education with entrepreneurship, finance, management of innovation, and marketing expertise. Graduates have the skills to articulate a vision and bring it to fruition as a product ready for the marketplace.	Faculty of Engineering; Odette School of Business	Collaboration; Course Development; Joint Programs; Program Development; Undergraduate Students; Program Development.
2011/12	Strategic Priority Fund	New Academic Programming for Faculty of Engineering	Mehrdad Saif, Engineering	\$400,000. One Time; \$200,000 for each of two years, 2011/12 & 2012/13	This initiative supports development of new academic programming for the Faculty of Engineering. Programs being considered include a Aerospace Engineering Option and the re-introduction of a 4-Year Honours Program for non-Co-op students.	Faculty of Engineering	Undergraduate Students; Program Development.
2010/11	Strategic Priority Fund	Additional support for Graduate Assistants	Patti Weir, Graduate Studies	\$100,000 one-time	This funding is matched on a one-time basis with Graduate Growth Incentive Program funds, and is used to hire additional Graduate Assistants (GAs). The GA budget has not grown over the last few years even though full-time graduate enrolment has grown by 40% since Fall 2005. The one-time funding affords an opportunity to plan for a more systemic solution.	Faculty of Graduate Studies	Graduate Assistants; Graduate Students; Research; Teaching.
2010/11	Strategic Priority Fund	Establish GATA Network-Foundational Professional Skills for Graduate Students	Patti Weir, Graduate Studies	\$17,000 one-time; \$36,000 base	This initiative establishes a GATA Network supported across campus. The GATA Network facilitates and systematizes GATA peer mentorship, peer development, and resource sharing in support of improved educational practice, and the collaborative development of graduate students' professional skills, consistent with the Canadian Association of Graduate Studies statement on professional skills development for graduate students. The GATA Network is established through the joint efforts of the team currently facilitating the Faculty of Graduate Studies, the University Teaching Certificate, the GATA Learning Community, and faculty contacts for each department. A GATA Network Interfaculty Committee provides program feedback and communications support in regular review meetings once per semester. To ensure the engagement of a wide variety of stakeholders from across the disciplines, the GATA Network steering committee provides strategic guidance and liaises with senior administration and other campus groups as necessary.	Faculty of Graduate Studies	Graduate Assistants; Teaching Assistants; Professional Development; Undergraduate Students; Graduate Students; Peer Mentorship; Job Creation; Resource Development.
2014-2015	The Office of the Vice-Provost, Teaching and Learning	Teaching Leadership Chairs	Dave Andrews, Kinesiology	\$15,000 annual base budget	The primary areas of activity for this Chair include continued leadership in the Peer Collaborative Network and an emphasis on the teaching and learning nexus.	Faculty of Human Kinetics	Professional Development; Leadership; Faculty; Sessional Instructors; Communities of Practice.
2010/11	Centred on Learning Innovation Fund (CLIF)	Assessment in Clinical and Experiential Learning Contexts	Gemma Smyth and Marcia Vallante, Law	N/A	This initiative supports the development of clinical and experiential learning assessment mechanisms in the Faculty of Law. The increasing numbers of clinical offerings in the Faculty of Law creates a concomitant need to develop meaningful and pedagogically supportable assessment mechanisms that meet both program-level and professional outcomes, e.g. the Faculty of Law and the Federation of Canadian Law Societies. The materials are tested through the Environmental Law Clinic, and then made more widely applicable to other clinical programs or for individual faculty.	Faculty of Law	Clinical Placements; Experiential Learning; Assessment Methods; Law Students.
2013/14	Strategic Priority Fund	Improving Student Learning and Client Service Through Clinical Skills Training	Gemma Smyth, Reem Bahdi, Marion Overholt and David Tanovich, Law	\$90,000	This initiative develops training modules for use at Community Legal Aid (CLA) and Legal Assistance of Windsor (LAW). The modules can also be adapted for use in other clinics, and are a model for other electronic training tools that enhance student-centred, experiential learning in the law school curriculum.	Faculty of Law	Law Students; Experiential Learning; Online Learning.
2013	Open and Online Learning Strategic Development Grant	Establishing and evaluating clinical law competencies	Gemma Smyth, Law; Marion Overholt, Legal Assistance of Windsor	\$3,000	This project is part of a larger initiative to revamp the Faculty of Law Clinic Seminar in order to improve evaluation, increase efficiency in order to support students better, and to provide better support to students in the early stages of their involvement with the law clinics. This project establishes competencies through an interview process, establishes an e-portfolio system, and allows for the evaluation of the course and system.	Faculty of Law	Online Learning; Law Students.

2010/11	Strategic Priority Fund	Centre for Enterprise and Law	Myra Tawfik, Law; Francine Schlosser, Business	\$160,000 for 5 years	The Intellectual Property Legal Information Network (IPLIN) and the Centre for Business Advancement and Research (CBAR) have collaborated to propose a Center for Enterprise and Law. IPLIN is a community public legal education initiative on matters relating to intellectual property and innovation law. CBAR collaborates with local industry, community, and academia and encourages innovation and entrepreneurship. No other university in Canada has blended students from Law and Business. This funding establishes the infrastructure necessary to continue and expand this part of the University's commitment to learning experiences while promoting strategic community outreach. Further work is being done to develop a framework that will consider institutional issues.	Faculty of Law; Odette School of Business	Community Outreach; Job Creation; Mentorship; Students; Undergraduate Students; Business Students; Law Students.
2009/10	Centred on Learning Innovation Fund (CLIF)	Techniques to Assess Professional Identity Learning in Interdisciplinary Programs	Gemma Smyth, Law; Suzanne McMurphy, Social Work	N/A	Joint degree programs are gaining in popularity across Canada and the United States. At UWindsor, the Faculty of Law and School of Social Work began a joint M.S.W./J.L.B. degree program in September, 2010. This program is only the third of its kind in Canada, and integrates the skills and values that many legal and social work scholars identify as crucial to effective practice in both disciplines. However, most joint degree programs are not integrated: that is, students must take one year of studies in one faculty, followed by a year in the other, perhaps with a joint course over the duration of their degrees. This raises the significant danger that students develop confused professional identities, particularly when the professions contain inherently different ethical frameworks. This initiative develops unique assessment models that lead students to ponder key ethical problems throughout the duration of the program, overcoming some of the potential conflict in professional identity, and in doing so, students may graduate with heightened understanding of both professional identities and more effectively integrate them in practice.	Faculty of Law; Faculty of Social Work	Interdisciplinary; Joint Programs; Assessment Methods.
2011/12	Strategic Priority Fund	Enhancing the Knowledge, Skills and Professional Practice of Advance Practice Nurses in Oncology and/or Palliative Care	Linda Patrick, Nursing	\$310,000 One Time; \$155,000 for each of two years, 2011/12 & 2012/13	This initiative establishes a new Graduate Diploma in Advanced Practice Oncology/Palliative Care Nursing, in partnership with de Souza Institute (Toronto). This collaboration to offer graduate level education further enhances the knowledge, skills and professional practice of nurses seeking to work in oncology and/or palliative care settings, ultimately making the quality of cancer care in Ontario among the best in the country. The program is delivered in an E-Learning format.	Faculty of Nursing	Graduate Students; Program Development; Collaboration; Online Learning.
2008/09	Centred on Learning Innovation Fund (CLIF)	Enhancing the Teaching and Learning of Physical Assessment Skills; Peer Mentors as Standardized Patients	Judy Bornais and Kathy Pfaff, Nursing	N/A	This initiative combines standardized patients (SPs) and peer mentors into an innovative learner-centred approach for the teaching and learning of physical assessment, an integral component of nursing care. Nursing educators are challenged to provide a program which engages the learner in a systematic approach to assess and diagnose the needs of the patient. The use of SPs in teaching health assessment has been shown to increase student comfort and confidence when working with patients. Integration of SPs has also translated into improved skill, competence, and application of theory into practice. Peer mentoring is a key strategy for supporting nursing students, such that both the mentor and learner grow personally and professionally in this unique relationship. Therefore, it may follow that the incorporation of the peer mentor into the SP role will mutually enhance the learning of both the student and mentor.	Faculty of Nursing	Mentorship; Learning-Centred Practices; Undergraduate Students; Nursing Students.
2007/08	Centred on Learning Innovation Fund (CLIF)	Evaluating the Effectiveness of Using Standardized Patients in Health Assessment Labs for Nursing Students	Judy Bornais, Nursing	N/A	The use of standardized patients is an established educational tool in medical education with a considerable amount of literature supporting its effectiveness as a learning and assessment tool (Barrow, 2000; De Champlain, Margolis, King, & Klass, 1997). This problem-based learning approach is extensively used in medicine but is relatively new in the field of nursing education, and has been primarily limited to graduate nurse practitioner programs (Becker et al., 2006). This study examines the effectiveness of using standardized patients in a first-year nursing health assessment class. A convenience sample of students registered in health assessment has the opportunity to practice Objective Structured Clinical Exams (OSCEs) in their labs on standardized patients, while a control group continues to practice OSCEs on their peers in labs. Pre- and post-OSCE evaluation and pre- and post-written examinations determine the effectiveness of the use of standardized patients in nursing health assessment labs.	Faculty of Nursing	First-Year Students; Nursing Students; Undergraduate Students; Learning-Centred Practices; Method Evaluation; Research.
2009/10	Centred on Learning Innovation Fund (CLIF)	Enhancing Moral Literacy of First-Year Nursing Students Through Engagement in "Virtual" Ethical Grand Rounds	Kathy Pfaff and Sharon McMahon, Nursing	N/A	The process of ethical decision-making in healthcare is becoming increasingly complex. A plethora of professional organizations assert that collaboration among health care professionals is essential to safe and ethical health care delivery. Nurses, especially novice nurses, often lack preparedness to engage in ethical decision-making. The issue is compounded by lack of interprofessional collaborative experiences in nursing education programs. This project expands the singular professional focus for ethical decision-making by engaging students in a multidisciplinary approach to 'Ethical Grand Rounds'. Using safe, open, semi-independent, small-group interactive virtual classrooms, first-year nursing students engage with students from other health care disciplines to apply critical thinking, ethical reasoning, decision-making and process writing to ethical case studies, which are derived from contemporary client-centred health care situations.	Faculty of Nursing	First-Year Students; Nursing Students; Undergraduate Students.

2009/10	Centred on Learning Innovation Fund (CLIF)	Enhancing Nursing Education of Large Groups: Using Simulation on a Grandeur Scale	Deborah Dayus and Judy Bornais, Nursing	N/A	In nursing, experiential learning is essential to a positive learning experience for students across the curriculum. Simulated experiential learning is an innovative teaching strategy and tool which engages students in an environment which enriches learning and brings success in practice. Building on existing research and practice, the use of simulation in teaching has been shown to foster students' ability to apply their knowledge, gain and improve skills, and formulate best practice clinical decisions in a controlled, safe, and realistic environment without risk to actual patients. While not a replacement for actual clinical experiences with real patients, simulation provides a meaningful bridge between theory and practice (Decker, Sportsman, Puetz & Billings, 2008; Rauert, 2001, 2004). Simulations are usually used with small groups; this project enhances the simulation program in order to reach more students across the program. The goal is to produce two new video productions of simulated events to provide more students with an opportunity to experience nursing than have been afforded this experience to date.	Faculty of Nursing	Large Classes; Nursing Students; Undergraduate Students.
2010/11	Strategic Priority Fund	Inter-Faculty Health Sciences Position	Linda Patrick, Nursing; Mariys Koschinsky, Science	N/A	This appointment allows the development of a multidisciplinary health sciences program which enhances opportunities for undergraduate students, promotes the further development of health research at UWindsor, and promotes partnerships in the health sector in Windsor-Essex County.	Faculty of Nursing; Faculty of Science	Program Development; Multidisciplinary; Collaboration; Science Students; Nursing Students; Community Outreach; Job Creation; Undergraduate Students.
2014-2015	The Office of the Vice-Provost, Teaching and Learning	Teaching Leadership Chairs	Judy Bornais, Nursing	\$15,000 annually for three years	The primary areas of activity for this Chair include a growing involvement in the Peer Collaborative Network, and work on Experiential Learning as a means of applying theoretical concepts learned in the classroom.	Faculty of Nursing	Experiential Learning; Professional Development; Faculty; Leadership; Sessional Instructors.
2010/11	Centred on Learning Innovation Fund (CLIF)	Providing Math Assistance Online: Assessment of Student Learning	Dragana Martinovic, Education; Justin Larriere, Mathematics and Statistics Learning Centre	N/A	Tutoring in any subject is usually face-to-face, but educational institutions are experimenting with online tutoring. Communicating online has some advantages and disadvantages, some of which are unique to mathematics. This project addresses the problem by designing an online help environment using a CLEW site advanced with open access mathematics software, GeoGebra. The positive side is that students write for an online tutor who needs full information about the problem at hand. They are encouraged to write about different stages in problem solving, including articulating their difficulties. This successful strategy is part of the 'commented problem-solving protocols' method (TEPs, Powell & Ramnauth, 1992). Such protocols contain explanations of student thinking, evidence of comprehension and supporting arguments. Students therefore go through a process of self-explanation and repair their own mental models more effectively than if somebody else does it for them (Chi, 1996). In reality, online help in mathematics rarely reaches these levels. Students often just send the questions they have trouble with, which makes it difficult for tutors to properly diagnose the problem (Chi, 1998) and develop an appropriate teaching strategy (Martinovic, 2005).	Faculty of Science	Distance Education; Online Learning; Resource Development; Tutoring; Undergraduate Students.
2010/11	Strategic Priority Fund	Foundational Mathematics Instruction	Mariys Koschinsky, Science	\$21,000 one-time, \$124,000 base	This initiative develops the capacity to support student achievement and success in mathematics through an early intervention plan. High failure rates in first-year mathematics are a concern in universities across Canada, particularly since mathematics is a gateway course to many programs, and success has an impact on retention. At UWindsor, 60-140 is a high-enrollment introductory differential calculus course involving 900 students annually, primarily first-year students from the Faculties of Science, Engineering, Inter-Faculty Programs, and Arts and Social Sciences. This course has historically had high failure and attrition rates compared to other first-year courses in these Faculties. This initiative increases weekly tutorial and lecture hours, allows for smaller sessions and study groups, increases GA support, and ensures course delivery by full-time faculty. These changes increase contact time with full-time faculty and offer greater opportunities for support.	Faculty of Science	Undergraduate Students; First-Year Students; First-Year Experience; Retention; Teaching Assistants; Course Development.
2011/12	Strategic Priority Fund	Master of Medical Biotechnology	Mariys Koschinsky, Science	\$71,500, One Time	The Master of Medical Biotechnology (MMB) program is a professional course-based graduate program developed by the Department of Chemistry & Biochemistry, in conjunction with the Faculty of Science and the Centre for Executive and Professional Education. This one-year program provides MMB students with practical experience in the techniques, methods and instruments that are used in a state-of-the-art industrial biotechnology setting. The program offers students hands-on experience with industrially-applicable techniques and instrumentation for solving real world problems in biotechnology.	Faculty of Science	Graduate Students; Program Development.
2012/13	Strategic Priority Fund	Creation of a Certificate Program in Applied Information Technology	N/A	\$73,200, One-time funding over two years	This initiative develops online versions of five courses, in order to create an Applied Information Technology Certificate Program that can be offered in both distance and face-to-face modes. Demand for the other five existing courses in the Certificate program has been strong.	Faculty of Science	Program Development; Certificate Programs; Distance Education; Online Learning; Course Development.

2013/14	Strategic Priority Fund	Creation of an Advanced Laboratory for Education, Research, and Training in Medical Physics	Chitra Rangan and Stephen Reise, Physics	\$40,000	The Advanced Laboratory in Medical Physics trains students on equipment and procedures related to nuclear decay measurements, the generation of medical radioisotopes, nuclear spectroscopy, cancer radiotherapy treatment planning, computed tomography (CT) imaging, and other advanced imaging techniques. Combined with existing in-kind donations received from external organizations, this investment further enhances the growing medical physics undergraduate stream and enables collaboration with other research and teaching units on campus.	Faculty of Science	Lab Development; Undergraduate Students; Collaboration.
2007/08	Centred on Learning Innovation Fund (CLIF)	Workbook for Internet Information and Ethics	Pierre Boulos and Randy Fortier, Computer Science	N/A	This workbook is a re-usable set of case studies and problem sets in Computer Ethics. The workbook is integrated into the CLEW course kit for 60-305, and is made available to CS Co-op students in order to give students hands-on opportunities and practical learning experiences in computer ethics. The workbook is comprised of six modules, each providing a theoretical, background ethical framework along with current case studies pulled from various Internet media sources. Topics such as free speech, spam, pornography, intellectual and digital property, privacy, and security are explored. The workbook concludes with a section on professionalism in information technology.	Faculty of Science	Course Materials; Online Learning; Cooperative Education.
2008/09	Centred on Learning Innovation Fund (CLIF)	Enhancing First Year Biology Labs to Enrich the Student Learning Experience	Dora Cavallo-Medved, Julie Smit and Kirsten Poiling, Biological Sciences	N/A	In science, the lab component of first-year courses is essential to a positive student learning experience. The lab environment provides an excellent opportunity to introduce students to innovative, active, and reflective experiences in smaller groups than the typical large lecture classroom. This initiative develops and enhances first-year biology lab exercises to ensure that students amass many of UWindsor's undergraduate learning outcomes as outlined in 'To Greater Heights'. This project assesses a number of current first-year biology lab exercises and designs new activities to provide deeper learning of course material. Exercises requiring improvement within the two first-year biology courses are identified via surveys of past students and graduate/teaching assistants, assessed, and redesigned to achieve a more engaging student experience. The results from this project increase the enthusiasm among students for the first-year science experience and enhance the effectiveness of the learning techniques associated with biology courses.	Faculty of Science	First-Year Students; Undergraduate Students; Best Practices; First-Year Experience; Student Survey.
2013	Undergraduate Research Experience Grant	Applying a virtual experience to complement first year undergraduate biology teaching labs.	Dora Cavallo-Medved, Biological Sciences	\$5,000	In this research project, a team of undergraduate student researchers worked closely with the instructor and the lab coordinator for the first-year biology courses to explore the application of virtual labs within the teaching lab curriculum that complement and enhance the current hands-on learning activities. This blended learning approach reinforces the subject material and provides more opportunities for self-assessment and evaluation. The student researchers had opportunities for self-reflection and growth regarding their own learning and teaching practices, thus enhancing their own undergraduate experience.	Faculty of Science	Research; Undergraduate Students; Online Learning; First-Year Students;
2013	Undergraduate Research Experience Grant	Cross-Disciplinary Undergraduate Research Projects Integrated to Deliver a Collaboratively Assembled e-Text, Phase I	Michael Crawford, Biological Sciences	\$5,000	This project produced and published an e-text to disseminate and raise awareness of social, medical, ethical and legal issues related to epigenetics. Undergraduate students individually researched and produced reviews of primary literature and collaboratively edited, formatted, and assembled the reviews into a formal e-text using the library's open access publishing infrastructure. Students also assembled an expanded annotated bibliography, presented a seminar, and wrote chapter subsections.	Faculty of Science	Research; Undergraduate Students; Collaborative Writing; Multidisciplinary.
2010/11	Strategic Priority Fund	Enhancing the First Year Learning Experience in Computer Science	Mariys Koschinsky, Science	\$20,000 base	This initiative helps identify students experiencing difficulty in their first year of computer science programs, and provides extended academic support. First-year students fulfilled the admission requirements for Computer Science programs; however, at the end of their first year of study, many of these students withdraw or are put on academic probation. By the second year, more than 25% of the previous first year class is no longer enrolled in a Computer Science program. This initiative establishes a group senior student mentors and encourages undergraduate students to become involved in research groups and academic clubs.	Faculty of Science	First-Year Students; Mentorship; Student Employment.
2011/12	Strategic Priority Fund	Chemistry and Biochemistry First Year Success Program	Phil Dutton, Chemistry & Biochemistry	\$108,000 One Time; \$40,000 in 2011/12; \$34,000 in 2012/13 & 2013/14	This initiative addresses the significant problem of the large range of preparatory background among students attempting to take first-year chemistry. The 03-59-090 course is offered during the Summer term to help incoming students prepare for 03-59-140. The initiative also addresses the need to reduce class sizes in first year and develop a new model based on Dalhousie University's success. The Dalhousie model of delivery involves a single course coordinator handling the logistics of the course for one teaching load. Classes of reduced size (160-200 students) are taught by individual instructors, with each course section constituting one teaching load. The Faculty of Science has committed two instructor equivalents for each term and the SPF supports an additional sessional instructor and coordinator for each term.	Faculty of Science	First-Year Students; First-Year Experience; Undergraduate Students; Student Success; Job Creation; Sessional Instructors; Retention.
2012/13	Strategic Priority Fund	Masters of Applied Statistics	Ronald Barron and Sudhir Paul, Mathematics & Statistics	\$40,000, One-time funding	This investment supports the development of a new course-based professional Masters of Applied Statistics program. Initial market research has indicated strong domestic and international demand for this program.	Faculty of Science	Program Development; Graduate Students.

2008/09	Centred on Learning Innovation Fund (CLIF)	Using Computer-Based Resources and Peer Tutoring to Facilitate First Year Students' Understanding of Physics	Tim Reddish and Elena Maeva, Physics; George Zhou, Education	N/A	This project uses computer-based interactive resources and peer tutoring to enhance first-year students' physics learning experience. The first year introductory physics courses are required courses for many students who major in science and engineering programs. Students' learning experiences in these courses have a great impact on whether they are going to stay in science-related majors or even persist in post-secondary studies. Many initiatives to assist physics learning at other universities are adopted here, such as peer instruction, use of technology, and physics studios. The findings from this project generate some useful suggestions to enhance students' learning experience in other first-year science courses.	Faculty of Science	First-Year Students; Undergraduate Students; Online Learning; Tutoring; Science Students; Retention; Student Success; First-Year Experience.
2009/10	Centred on Learning Innovation Fund (CLIF)	Student-Centred Approach to Course Development	Dora Cavallo-Medved, Julie Smit and Kirsten Poling, Biological Sciences	N/A	This project builds upon the success of the project "Enhancing First Year Biology Labs to Enrich the Student Learning Experience". The overwhelming positive response from first-year biology students was that they have a strong interest in how they learn, not just what they learn. This follow-on project develops new lab exercises using a process that shifts the traditional 'instructor-centred' method to one that is 'student-centred'. Undergraduate biology students are heavily involved in developing new first-year Biological Diversity lab exercises, from identifying relatively low-ranking exercises, through creating and developing new and highly engaging exercises, to implementing a trial lab session for the new exercises. The ultimate goal is to provide first-year biology lab exercises that engage and excite undergraduate students, a result more likely if students are involved in the development process.	Faculty of Science	Course Development; Student Survey; Undergraduate Students.
2009/10	Centred on Learning Innovation Fund (CLIF)	Improving Scaffolding for Problem-Solving in Junior Level Electromagnetic Waves	Chitra Rangan, Physics	N/A	This initiative improves students' problem-solving abilities in upper-year Physics classes. Guided problem-solving is insufficient for developing problem-solving abilities when mastery of both concepts and mathematical techniques are simultaneously required. This initiative implements a scaffolding process by deconstructing the solution in terms of concepts, problem set-up, and selection of mathematical technique. The deconstructed samples are tested by students in the third-year electrodynamics class and improved by feedback via interviews. Formative feedback and empirical data are used to assess the efficacy of this approach.	Faculty of Science	First-Year Students; Undergraduate Students; International Students; Student Success; Science Students; Retention; Student Survey.
2010/11	Centred on Learning Innovation Fund (CLIF)	Empowering International Students to Succeed in First Year Biology	Dora Cavallo-Medved, Biological Sciences	N/A	First-year international students face the new and challenging demands of post-secondary life with the added pressures of adjusting to a different cultural environment. Although many research studies focus on addressing the complex issues facing international students, the Department of Biological Sciences currently has no mechanism to identify and address their unique learning challenges within the first-year biology courses. Successful completion of these courses is required before admission into all upper-level biology courses, and enrollment of international students into the Biology program is growing each year, thus it is imperative to establish and implement strategies to overcome these challenges. This study developed a detailed questionnaire to identify the unique learning challenges facing international students in their first-year biology courses. International Biology students participated in a focus group that used the data collected from the questionnaire to develop potential strategies to improve teaching and learning practices within the first-year biology courses. Although the study specifically addresses the needs of international Biology students, the results may prove useful to other disciplines. Implementing these strategies empowers future international students to succeed academically in the first-year courses, enhancing their first-year experience and increasing retention within the program.	Faculty of Science	Retention; Science Students; Undergraduate Students; Student Survey; Resource Development; First-Year Students; First-Year Experience; Student Success.
2010/11	Centred on Learning Innovation Fund (CLIF)	Using Student Input to Enhance Academic Success and Student Retention in the Biological Sciences	Kirsten Poling, Biological Sciences	N/A	Student retention can depend upon many factors, one of which is academic support and success. This study intensively surveyed and interviewed students to identify what they perceive to be the problematic issues during the first year of university, in order to determine the factors that influence academic success in the Department of Biological Sciences. Upper-level students were surveyed to determine how they managed to successfully transition during their first year, and to determine what they feel are the major academic issues that they still face. The information from upper-level students were compiled into a searchable online database and a "Survival Guide for the Biological Sciences at the University of Windsor" which is provided to all incoming Biology students. These resources identify the needs of transitioning first-year students, and provide future first-year students with solutions to the common academic issues that they face.	Faculty of Science	Retention; Science Students; Undergraduate Students; Student Survey; Resource Development; First-Year Students; First-Year Experience; Student Success.
2014-2015	The Office of the Vice-Provost, Teaching and Learning	Teaching Leadership Chairs	Chitra Rangan, Physics	\$15,000 annually for three years	The primary areas of activity for this Chair include an evidence-based scholarly approach to teaching in the Faculty of Science, and in particular, leadership as a Promoter of Experiential and Active, Research-based Learning (PEARL). The Chair addresses the challenge of using experiential learning methods in large, introductory science classes.	Faculty of Science	Professional Development; Faculty; Leadership; Sessional Instructors; Science Students; Experiential Learning; Large Classes; Introductory Classes; First-Year Students.

2013	Open and Online Learning Strategic Development Grant	Concept-Based Learning Objects in Microbiology Distance Education	Tanya Noei, Biological Sciences	\$10,000	In this initiative supports the redesign of the distance education versions of introductory microbiology and medical microbiology courses. Increased student engagement is facilitated by adding online lectures with instructor audio commentary to the textual/visual information that is normally provided. Students interact synchronously with the instructor and other students via collaborative software, increasing engagement and opportunities for peer and collaborative learning. Design of online tools to address fundamental yet challenging concepts and students' misconceptions help students build a conceptual foundation that allows mastery of a topic. Learning objects (online simulations and related activities) are developed based on microbiology misconceptions/key concepts. Student learning gains and other learning aspects are measured to gauge the impact of the interventions used in the courses. The lessons learned in this project are applicable to other courses, both online and those offered in other formats (e.g., traditional face-to-face, blended). The learning objects can be used in other courses with introductory microbiology and medical microbiology components.	Faculty of Science	Online Learning; Course Development; Science Students; Distance Education.
2013	Open and Online Learning Strategic Development Grant	Development of two Online Undergraduate Courses in Astronomy	Chitra Rangan, Physics	\$10,000	This initiative supports redevelopment of two face-to-face courses, 03-64-190 Introductory Astronomy I and 03-64-191 Introductory Astronomy II, for online delivery. The redevelopment addresses several needs. The demand for the courses is very high, 400 and 600 students respectively, but class enrollment is currently limited by classroom sizes and availability of exam locations for multiple sections. Astronomy units are required in the Ontario High School Science Curriculum, but currently there is no programming for teachers or pre-service teachers to acquire this knowledge for Additional Qualification credentialing. There is a strong community of amateur astronomers in the tri-county area, many of whom are interested in taking online courses in Astronomy. The redevelopment of these online courses will also be key to establishing an online Certificate in Astronomy.	Faculty of Science	Online Learning; Course Development; Undergraduate Students.
2011/12	Centred on Learning Innovation Fund (CLIF)	The Interdisciplinary Playbook	Phil Graniero, Earth & Environmental Sciences	N/A	The interdisciplinary Playbook is an action-oriented collection of ideas and best practices for faculty to use in building courses that are based not exclusively on themes or knowledge-sets, but on ways of thinking and doing that span disciplinary boundaries. It is a synthesis of existing research on interdisciplinary teaching methodologies and practices and interviews with faculty from other institutions actively implementing interdisciplinary curricula. The Playbook provides strategies for incorporating action-oriented thinking methods into interdisciplinary courses.	Centre for Inter-Faculty Programs	Best Practices; Interdisciplinary; Faculty; Sessional Instructors; Resource Development; Course Development.
2011/12	Strategic Priority Fund	Development of a Ph.D. Program in Argumentation and Establishment of a Related Institute in Argumentation and Rhetoric	N/A	\$60,000 One Time; \$30,000 for each of two years, 2011/12 & 2012/13	This interdisciplinary initiative develops a new PhD program in the arts and humanities specializing in argumentation, rhetoric and public policy, and developing projects in areas like argumentation and immigration and health policy reasoning. The associated Institute houses the new program and brings together faculty, PhD students, post-docs and staff from a number of disciplines. Interaction with individuals from a number of disciplines and across faculties raises the quality of scholarly interaction and provides opportunities for graduate student supervision, consultation on research, and stimulation from attending the public talks and conferences that the program hosts.	Faculty of Arts, Humanities & Social Sciences	Graduate Students; Program Development.
2012/13	Strategic Priority Fund	History M.A., Partial Distance Education Courses	Miriam Wright, Peter Way, Adam Pole and Jennifer Rocheleau, History	\$36,000, One-time funding over two years	This is a new partial-distance education stream in the MA in History program, called the MA in History for Working Professionals. It provides an engaging and flexible path for working professionals such as teachers to earn a graduate degree and thereby enhance their academic credentials. This program becomes the first distance or partial-distance MA in History offered in Ontario.	Faculty of Arts, Humanities & Social Sciences	Program Development; Online Learning; Course Development; Partial-Distance Education; Graduate Students; Mature Students; Part-Time Students.
2013	Undergraduate Research Experience Grant	International Trustworthiness Study - Qualitative Analysis Component	Catherine Kwantes, Psychology	\$3,000	This study explores how social culture influences people's conceptualization of trustworthiness, and involves data gathered in 15 countries. Students involved in the project are trained to do two types of coding: according to existing things, and emergent thematic analysis.	Faculty of Arts, Humanities & Social Sciences	Research; Undergraduate Students.
2010/11	Strategic Priority Fund	Civic Engagement Coordinator	Lori Buchanan, Psychology	\$80,000 a year for two years	This appointment enhances the academic and social opportunities for students in the Faculty of Arts, Humanities and Social Sciences (FAHSS), and engages the UW community in partnerships, by providing these students with an opportunity to apply their knowledge in practicum placements in the community.	Faculty of Arts, Humanities & Social Sciences	Job Creation; Community Outreach; Undergraduate Students.
2010/11	Strategic Priority Fund	Developing Asynchronous Models of Education in Social Work	Erika Kustra, Centre for Teaching and Learning; Brent Angell, Social Work	\$37,000 one time funding	This initiative develops an online learning model for social work education at both the undergraduate and graduate level. It provides new, more flexible options for students in social work programs, and supports the planned development of international programs in the United States, and possibly India, China and Viet Nam.	Faculty of Arts, Humanities & Social Sciences	Undergraduate Students; Graduate Students; Online Learning; Social Work Students; Course Development.

2011/12	Strategic Priority Fund	1st Year Instructional Support Program	Cecil Houston, Arts, Humanities & Social Sciences	\$135,000 One Time: \$45,000 for each of three years 2011/12, 2012/13 & 2013/14	This Learning Strategist AAS implements learning and instructional support activities in the Faculty of Arts, Humanities and Social Sciences (FAHSS). The Learning Strategist collaborates with the First-Year Design Team, other faculty and students in FAHSS, and the Centre for Teaching & Learning to enhance classroom and learning experiences across FAHSS. The Strategist delivers transition courses for students, facilitates pedagogical development, and collaborates with faculty to introduce better and easier formats for instruction, and to assess and recognize both student and faculty achievements. The creation and application of diagnostic instruments that provide knowledge of our students' learning and skill levels are also important responsibilities.	Faculty of Arts, Humanities & Social Sciences	Job Creation; First-Year Experience; Professional Development; Teaching Support; First-Year Students; Faculty; Sessional Instructors.
2011/12	Strategic Priority Fund	Developing Clinical Music Therapy Practicum and Internship Placements in Windsor and Surrounding Areas	Philip Adamson, Creative Arts	\$50,000 One Time: \$25,000 for each of two years, 2011/12 & 2012/13	Funding of this initiative will enable hiring of an accredited music therapist (MTA) to support current music therapy clinical practicum and internship placements in Windsor and Essex Counties and to develop new ones. This individual will support student achievement and success in the music therapy program through the provision of required supervision in clinical placements. Expanded clinical placement sites established by the MTA will make the music therapy program at the University more desirable to potential students as they will become aware of increased opportunities for clinical experience.	Faculty of Arts, Humanities & Social Sciences	Undergraduate Students; Community Outreach; Clinical Placements; Student Success.
2011/12	Strategic Priority Fund	Enriching the Student Experience: A Promotion of the FASS Mentor Program	Cecil Houston, Arts, Humanities & Social Sciences	\$20,000 One Time: \$10,000 for each of two years, 2011/12 & 2012/13	This initiative supported the Mentorship & Learning course and the FAHSS Mentor program as it expanded. The initial program had a large degree of success on a smaller scale. Fall 2011 required a 200% increase in the enrolment of student mentors to meet the needs of first-year courses being added to the FAHSS Mentor program. The initiative included implementation of a promotional plan that sought feedback from former mentors, created an online presence, and raised awareness for this unique learning experience at UWindsor.	Faculty of Arts, Humanities & Social Sciences	Program Development; Undergraduate Students; First-Year Students; First-Year Experience; Student Success; Peer Mentorship.
2011/12	Strategic Priority Fund	Political Science M.A. Internship Stream	Cecil Houston, Arts, Humanities & Social Sciences	\$72,000 One Time: \$36,000 for each of two years, 2011/12 & 2012/13	This initiative established a third Political Science program stream that allows its graduate students flexibility in their degree completion pathways. Selected students are offered the possibility of completing their MA through a combination of graduate coursework and a six-month internship placement that culminates with a research paper and public presentation. This investment allowed the Department of Political Science to progressively increase the size of its graduate program. The internship stream combines academic study and professional work experience in a manner that is attractive to students who see the MA as a terminal degree.	Faculty of Arts, Humanities & Social Sciences	Graduate Students; Program Development; Internships.
2012/13	Strategic Priority Fund	Commercial Aviation and Aerospace Leadership Option, Bachelor of Arts Honours in Liberal and Professional Studies	Andrew Allen, Education	\$22,500, One-time funding	This initiative supported the establishment of a Commercial Aviation and Aerospace Leadership program at UWindsor. This innovative program responds to growing demand for university-educated pilots and leaders in the aviation and aerospace industry.	Faculty of Arts, Humanities & Social Sciences	Program Development; Undergraduate Students;
2012/13	Strategic Priority Fund	In/Terminus Centre for Research and Creative Activity	Michael Darroch, Karen Engle, Brent Lee, Veronika Mogorody, Lee Rodney, Rod Strickland and Jennifer Willet, Creative Arts	\$40,000, One-time funding over two years	IN/TERMINUS, a team of faculty artists and researchers, develop interdisciplinary, student-led collaborative projects and site-specific installations in the Windsor/Detroit region. In anticipation of the Armouries building and programmes, in/Terminus is implementing a series of community-based projects and student seminars in Windsor, fostering greater working relationships with the community and with Detroit-based arts and academic institutions.	Faculty of Arts, Humanities & Social Sciences	Interdisciplinary; Collaboration; Community Outreach.
2013/14	Strategic Priority Fund	Development of Six Undergraduate Hybrid Courses	Carol Davison, English Language, Literature & Creative Writing	\$20,642	The English Department is developing six undergraduate hybrid courses over three years (2013-16) using a blended delivery format, combining in-class and online learning using various web-based communication technologies. These courses provide undergraduate students — both majors and non-majors, local and international — with more flexible degree completion pathways.	Faculty of Arts, Humanities & Social Sciences	Course Development; Undergraduate Students; Blended Learning.
2013/14	Strategic Priority Fund	BioART: Contemporary Art and the Life Sciences Exhibition at the Ontario Science Centre	Jennifer Willet, Creative Arts	\$13,000	Students from the School of Creative Arts are mounting an exhibition of their bioart projects at The Ontario Science Centre (OSC) in Toronto, at the Centre's invitation. It is an exceptional opportunity for students to exhibit their work in a professional context, but also to promote INCUBATOR Lab, SCA, and UWindsor to the 400,000 visitors to the OSC over the duration of the exhibition.	Faculty of Arts, Humanities & Social Sciences	Creative Arts Students; Professional Development; Interdisciplinary.

2007/08	Centred on Learning Innovation Fund (CLIF)	Formation of a Faculty Learning Community on the Topic of Interteaching and Graduate Student Education	Alan Scoboria, Fuschia Sirols and Antonio Pascual-Leone, Psychology	N/A	<p>This initiative supports the development of a faculty learning community focused on the teaching method termed "interteaching". Three faculty and two graduate students meet on a regular basis to discuss the implementation of interteaching, with a specific focus upon applying the method to graduate instruction. The discussions are documented, and data on student performance and reactions to the use of interteaching in the graduate classroom are gathered and reported. Interteaching differs from traditional lecture-based instruction, which tends to promote student passivity, by shifting responsibility for learning onto students and placing student engagement with material at the centre of the learning process rather than instructor expertise. The instructor's role is shifted to providing preparatory materials, supporting peer-to-peer dialogue about readings, and addressing questions and clarifying challenging material. Research to date in undergraduate courses has shown improvements in outcomes, as well as enhanced student engagement.</p> <p>Community college students often seek admission to university programs to continue their education. However, community colleges and universities sometimes have different perspectives about the value of experiential and academic learning, and about teaching styles employed by faculty to promote a learning-centred environment. This project team examines the use of learning outcomes as a means to respond to these differences. They consider the similarities and differences in teaching methods and learning outcomes between community college child and youth programs and university social work programs. They focus on existing research and examples of learning outcomes. As well, they address barriers to university admission, cooperative programs between universities and community colleges, and future possibilities for shared or integrated courses. Collaborative and complementary learning outcomes between university social work programs and community college child and youth studies programs can benefit students and higher education institutions.</p>	Faculty of Arts, Humanities & Social Sciences	Graduate Students; Interteaching; Student Engagement; Best Practices; Course Development.
2007/08	Centred on Learning Innovation Fund (CLIF)	Promoting Success for College Students Entering University Programs through Learning Outcomes and Collaboration	Irene Carter, James Coyle and Donald Leslie, Social Work	N/A	<p>Teaching practical evaluation skills in real-world settings has been addressed in the literature as an effective way to help students bridge the gap between knowledge of evaluation practices and their practical application (Gredler & Johnson, 2001). Practicum experience is a popular method to enhance learning of program evaluation in the field (Trevisan, 2004), but there is no empirical evidence of its effectiveness. Through a field practicum course, students are intended to build competence in valuable hands-on evaluation skills, and confidence in their ability to use them. However, research focused on whether students actually develop such competence and confidence is limited. This research project investigates whether there are changes in student feelings of competency and empowerment in conducting evaluations, specified as learning outcomes for graduate students enrolled in the Advanced Field Integrative Seminar course, using pre-post retrospectives.</p>	Faculty of Arts, Humanities & Social Sciences	College Students; Undergraduate Students; Social Work Students; Collaboration; Learning-Centred Practices; Student Success.
2007/08	Centred on Learning Innovation Fund (CLIF)	Self-Efficacy and Empowerment as an Outcome in a Graduate Level Advanced Field Integrative Seminar Course	Wansoo Park, Connie Kvarfordt, Irene Carter and Sung Hyun Yun, Social Work	N/A	<p>Teaching practical evaluation skills in real-world settings has been addressed in the literature as an effective way to help students bridge the gap between knowledge of evaluation practices and their practical application (Gredler & Johnson, 2001). Practicum experience is a popular method to enhance learning of program evaluation in the field (Trevisan, 2004), but there is no empirical evidence of its effectiveness. Through a field practicum course, students are intended to build competence in valuable hands-on evaluation skills, and confidence in their ability to use them. However, research focused on whether students actually develop such competence and confidence is limited. This research project investigates whether there are changes in student feelings of competency and empowerment in conducting evaluations, specified as learning outcomes for graduate students enrolled in the Advanced Field Integrative Seminar course, using pre-post retrospectives.</p>	Faculty of Arts, Humanities & Social Sciences	Research; Graduate Students; Social Work Students; Professional Development; Experiential Learning.
2007/08	Centred on Learning Innovation Fund (CLIF)	Student Motivation for Interteaching Methods in Undergraduate Health Psychology	Fuschia Sirols, Rebecca J. Purc-Stevenson, Alan Scoboria and Antonio Pascual-Leone, Psychology	N/A	<p>Interteaching (Boyoce & Himeine, 2002) is a modern teaching method that shifts responsibility for engagement with material away from instructors and onto students. Research to date supports that this method produces better course outcomes than lecture alone. Furthermore, students typically report preferring interteaching to lecture-based instruction. Less is known about how motivation may be involved in the interteaching process. This project examines students' preferences and motivation for interteaching across two Health Psychology courses. Questions regarding expectations, motivations, and experience with interteaching were administered before and after each course. Quantitative and qualitative analyses were conducted to assess students' experience with interteaching, and its effects on motivation and performance. The results from this project extend existing knowledge on the benefits of interteaching by improving understanding about the role of motivation and expectations for students' engagement with interteaching.</p> <p>This project provides learning skill instruction in four crucial areas: note-taking, text reading, test-taking, and time management. Participants receive training in the learning skills during their regularly scheduled laboratory times. A large portion of the university population is thereby reached, since half of the incoming students take psychology. The learning modules reflect general learning skills since a large proportion of the participants are not psychology majors. As a method of control, half of the participants receive skills training before the midterm, while the remainder receive the skills training afterwards.</p>	Faculty of Arts, Humanities & Social Sciences	Interteaching; Undergraduate Students; Student Survey; Student Engagement.
2007/08	Centred on Learning Innovation Fund (CLIF)	Teaching Learning Skills	Ken Cramer, Psychology	N/A	<p>This investment supports a Transparency Machine Event with the Detroit poet and playwright Carla Harryman, 24 March, 2008. A Transparency Machine Event is a poetry learning environment of interest to those engaged with teaching critical theory, contemporary culture and literature, and creative writing, enabling a critical understanding of and participation in the mass consumption of cultural, especially language-based, social forms. A poet presents his or her work in the context of selected texts that often include images and excerpts drawn from many disciplines. These texts are available as a downloadable handout weeks prior to the event for use in the classroom. A recording of the event itself is edited into teachable sound-bite podcasts and videos, and publicly archived online.</p>	Faculty of Arts, Humanities & Social Sciences	Student Success; Undergraduate Students; First-Year Students.
2007/08	Centred on Learning Innovation Fund (CLIF)	The Transparency Machine Event	Louis Cabri, English Language, Literature & Creative Writing	N/A	<p>This investment supports a Transparency Machine Event with the Detroit poet and playwright Carla Harryman, 24 March, 2008. A Transparency Machine Event is a poetry learning environment of interest to those engaged with teaching critical theory, contemporary culture and literature, and creative writing, enabling a critical understanding of and participation in the mass consumption of cultural, especially language-based, social forms. A poet presents his or her work in the context of selected texts that often include images and excerpts drawn from many disciplines. These texts are available as a downloadable handout weeks prior to the event for use in the classroom. A recording of the event itself is edited into teachable sound-bite podcasts and videos, and publicly archived online.</p>	Faculty of Arts, Humanities & Social Sciences	Course Materials; Digital Archive.

2008/09	Centred on Learning Innovation Fund (CLIF)	BioArt: Contemporary Art and the Life Sciences	Jennifer Willet, Creative Arts	N/A	<p>BioArt: Contemporary Art and the Life Sciences is a new, innovative course that allows non-specialist students to engage theoretically and practically in the biological sciences, fostering a critical participatory engagement with the biological sciences from a fine art perspective. This learner-centred course is a studio art and science crossover lab intended for students from various disciplines to foster interdisciplinary exploration of the intersections between art and life through hands-on laboratory protocols, critical readings, and the production of contemporary artwork. Students explore the ethical debates, issues of access and accountability, and overspecialization that arise from contemporary biotechnologies and BioArt practices. Practical workshops provide students with introductory experience with mammalian tissue culture, microscopy, DNA extraction and imaging, and genetic modification (amongst others) with an emphasis on health and safety and proper laboratory technique. This course is unique in Canada, with only a few others in the world, and serves as a national and international draw to UWindsor.</p> <p>In their widely cited tome, <i>How College Affects Students</i>, Pascarella and Terenzini (1991) assert that attending university exerts a lifetime impact on students ranging from income to politics. However, to date there has been little research into how students affect the university, though it is becoming clear that this street runs both ways. Students are not passive recipients of education, but are active participants in the shaping of contemporary higher education. This study develops and administers a survey of attitudes and beliefs that first-year students at UWindsor have about higher education. More specifically, the survey measures attitudes students have that might reveal a sense of academic entitlement or a customer attitude toward obtaining an education. This study improves understanding of the impact students' customer service orientation has on the institution. It is the continuation of a current study that uses focus groups as a way of identifying categories of questions that should be included in the survey. In addition to identifying students' beliefs and attitudes about what they are "buying" when they come to university, this study presents ways for faculty to understand today's first-year customer/student and ways to cope and interact effectively with today's first-year students.</p> <p>This project analyzed recruitment and retention within the School of Social Work to inform development of a more in-depth longitudinal study. During the 2008-09 academic year, the Social Work Student Association (SWSA) at UWindsor implemented an innovative peer mentoring program to link first-year social work students to upper-year students. Documentation about its implementation was reviewed, and through focus groups and a survey, students provided feedback on how the program was implemented, its strengths and areas for improvement, and recommendations for change. Data from the Registrar's Office were analyzed to determine trends in the characteristics of students who join and leave Social Work throughout the four years of the program. In addition, a literature search of existing mentoring programs and career decision-making in social work further informed the next steps for the longitudinal study. This research enhances the mentoring program and other recruitment and retention efforts within the School with a particular focus on: (1) reaching students identified to be at most risk of attrition from the Social Work program; and (2) increasing representativeness of students from a broad range of sub-populations typically underrepresented in the professional years (third and fourth year) of the program. This includes but is not limited to Aboriginal peoples, students with disabilities, and visible minorities.</p> <p>This project assessed the ability of the current Centre for Teaching and Learning (CTL) and Student Disability Services web site information to help first year instructors in creating an inclusive environment for students with disabilities. A literature review about learning-centred approaches and the principles for Universal Instructional Design (UID) informed a review of best practices associated with UID and the Learning Opportunities Task Force of the Ministry of Training, Colleges and Universities. The outcomes of the assessment were used to establish a set of guidelines that include compliance with the consumer accessibility standards for the Accessibility for Ontarians with Disabilities Act (AODA). It also informs instructors about best or needed practices to strengthen a learning-centred approach that maximizes inclusion for students with disabilities. Conversely, incorporating principles of UID to create accessible courses and teaching methodologies enhances the learning-centred environment for all students. Promoting guidelines for accessibility and accommodation for teaching first-year students with disabilities helps resolve barriers to a successful first-year experience and transition to further years of study.</p> <p>This project replicates and revises a published study of academic entitlement among university students - specifically, student attitudes concerning the role of education and educators as providing tangible and significant deliverables in a commodity model of higher learning. The study is replicated with a sample of Canadian students, instead of ethnic groups, this new study identifies differences by year of study and home faculty.</p>	Faculty of Arts, Humanities & Social Sciences	Course Development; Interdisciplinary; Learning-Centred Practices; Undergraduate Students.
2008/09	Centred on Learning Innovation Fund (CLIF)	Educational Expectations of First Year Students	Jill Singleton-Jackson and Jeffrey Reinhardt, Psychology	N/A		Faculty of Arts, Humanities & Social Sciences	First-Year Students; First-Year Experience; Student Survey; Research.
2008/09	Centred on Learning Innovation Fund (CLIF)	Fostering Inclusion Through Peer-Mentoring Programs	Kim Calderwood, Wansoo Park and Lisa Allison, Social Work	N/A		Faculty of Arts, Humanities & Social Sciences	Mentorship; Research; Undergraduate Students; Social Work Students; Retention; Diversity.
2008/09	Centred on Learning Innovation Fund (CLIF)	Promoting Success for First Year Students by Developing a Set of Teaching Guidelines Incorporating the Principles of Universal Instructional Design	Irene Carter and Donald Leslie, Social Work	N/A		Faculty of Arts, Humanities & Social Sciences	Research; Undergraduate Students; First-Year Experience; Learning-Centred Practices; Best Practices.
2008/09	Centred on Learning Innovation Fund (CLIF)	Student Academic Entitlement by Year and Faculty	Ken Cramer, Kathryn Laframere and Craig Ross, Psychology; Laurie Freeman-Gibb, Nursing	N/A		Faculty of Arts, Humanities & Social Sciences	Academic Entitlement; Research; Undergraduate Students.

2009/10	Centred on Learning Innovation Fund (CLIF)	Developing Effective Teaching Guidelines for Post-Secondary Course Websites Based on Universal Instructional Design	Irene Carter and Donald Leslie, Social Work	N/A	This project developed a set of teaching guidelines for postsecondary course websites with the goal of maximizing inclusion for all students. Best practices associated with Universal Instructional Design (UID) and course websites were identified via a literature review, the recommendations of the Learning Opportunities Task Force of the Ministry of Training, Colleges and Universities, and consumer accessibility standards found in the Accessibility for Ontarians with Disabilities Act (AODA). The accessibility of the websites for two courses were assessed for their application of UID teaching strategies, with heavy involvement of the students in the courses. The resulting guidelines inform instructors about best practices to strengthen the accessibility of course websites.	Faculty of Arts, Humanities & Social Sciences	Best Practices; Online Learning.
2009/10	Centred on Learning Innovation Fund (CLIF)	City as Media: Connecting Theory and Practice Through Urban Media Studies	Michael Darroch, Creative Arts	N/A	An innovative graduate seminar was developed to connect urban cultural and media theory to the context of Windsor and Detroit. The City as Media seminar explores theoretical approaches to the ways in which urban spaces, everyday life, and city stories are articulated and imagined through media, arts and technologies. Seminar participants question the relationship between our experiences and definitions of the 'city', urban life, and media. In the belief that theoretical perspectives must be grounded in action to understand the relationship between media and cities, this seminar provides creative strategies for applying theory to the practical situations and circumstances of the Windsor/Detroit border culture, in order to develop a corpus of graduate research on which local decision-makers, stakeholders and community leaders can draw.	Faculty of Arts, Humanities & Social Sciences	
2009/10	Centred on Learning Innovation Fund (CLIF)	University Civic Engagement: The Critical Role of Student Internships in Community Revitalization	Mary Medcalf and Cheryl Taggart, Social Work	N/A	This project explores the role UWindsor plays in building community resilience and supporting urban renewal in the City of Windsor via the success of the Community-University Partnership for Community Development, Research and Training. The Partnership provides internships for thirty-eight undergraduate and graduate students from social work, nursing, music therapy, and law. The students complete field practice hours over the course of their programs of study, following a specified curriculum. They are on-site in five low-income communities, working with residents and involved in various aspects of planning and implementing programs, providing services, assisting with community mobilizations. This project articulates best practices in University civic engagement; develops a community-university model which can be replicated in other communities; supports ongoing curriculum development; provides a framework to evaluate the Partnership with emphasis on student experience and learning; and showcases the work of the Partnership.	Faculty of Arts, Humanities & Social Sciences	Community Outreach.
2010/11	Centred on Learning Innovation Fund (CLIF)	Assessing Likelihood of Disengagement and Academically Risky Behaviours in University Students	Kathryn Lafreniere, Rosanne Menna, Ken Cramer and Stewart Page, Psychology	N/A	Programs that intend to enhance university student engagement, and thereby increase student success and retention rates, often fail to consider individual differences in students that can contribute to disengagement, academically risky behaviours, and dropout. This research project examines the influence of temperamental and personality constructs in relation to learning orientation and grade orientation, to identify their relative contributions to the prediction of engaging in academically risky behaviours and dropping out of university. The project builds on previous research that examined personality predictors of risk-taking in late adolescent university students. Proactive rebelliousness and low effortful control (i.e., difficulty in suppressing tendencies to avoid a task) are predictors of the likelihood of engaging in academically risky behaviour (Lafreniere, Menna, Cramer, & Out, 2009). Students with a strong learning orientation tend to be older and are higher in conscientiousness and openness, while students high in grade orientation tend to be younger, lower in conscientiousness and openness, and higher in neuroticism (Tippin, Lafreniere, & Page, 2010). This investigation contributes to knowledge and recommendations for enhancing the success of student engagement programs.	Faculty of Arts, Humanities & Social Sciences	Learning Orientation; Grade Orientation, Retention; Student Engagement; Student Success; Undergraduate Students.
2011/12	Centred on Learning Innovation Fund (CLIF)	An Innovative On-Line Method for Teaching Threshold Concepts in Social Work	Suzanne McMurphy, Wansoo Park and Ackerson, Social Work; Nick Baker and Lorna Stolarchuk, Centre for Teaching and Learning	N/A	The notion of threshold concepts - concepts that involve troublesome knowledge and are essential to allow students to make connections that would otherwise remain hidden - is rapidly gaining traction in the higher education community. This project examines the effectiveness of an online program, Theory of Change Online (TOCO), as a method of teaching one of the most important threshold concepts in social work, the Theory of Change. Training new social workers to be comfortable and proficient in analyzing and applying the Theory of Change concept is critical not only for their own learning, but for improving the effectiveness of social work interventions generally. Students find their engagement in TOCO's online simulations and interaction with their colleagues creates a more stimulating learning environment that enhances their understanding and willingness to engage in more critical thinking about social work interventions using the Theory of Change.	Faculty of Arts, Humanities & Social Sciences	Online Learning; Social Work Students; Threshold Concepts; Course Development; Undergraduate Students.

2013	Undergraduate Research Experience Grant	The Inspired Acting Laboratory	Lionel Walsh, Dramatic Art	\$3,000	The Inspiring Acting Project is a performance laboratory that experiments with the "lost" techniques of Fantastic Realism (Michael Chekhov and Yevgeny Yakhtangov) and Organic Acting (Nikolai Demitov). Seven students, auditioned from the BFA in Acting Program participants are participating in the Project. The Project is developing and testing a series of exercises that can be employed by others. The exercises are applied to scripted scenes, and its effects on the rehearsal process are analysed against the techniques' principles and goals.	Faculty of Arts, Humanities & Social Sciences	Research; Resource Development; Undergraduate Students; Dramatic Arts.
2013	Undergraduate Research Experience Grant	Animal Advocacy and Environmentalism; Understanding and Bridging the Divide	Amy Fitzgerald, Sociology, Anthropology & Criminology	\$3,000	This initiative employs three undergraduate research assistants to collect materials, analyze data, and write summary reports for three case studies related to animal advocacy and environmental movements. The students are producing presentations on all three case studies for a course, and are writing excerpts to be included in a book-in-progress.	Faculty of Arts, Humanities & Social Sciences	Research; Undergraduate Students.
2013	Open and Online Learning Strategic Development Grant	New Media Studies	Valerie Scatamburlo-D'Annibale and Brian A. Brown, Communication, Media & Film	\$10,000	This initiative adapts an existing course in New Media Studies for the online environment. It addresses and develops the "social competencies" necessary for full participation in digital society and "participatory culture" (Jenkins et al., 2006). While students perpetually engage with 'New Media', websites and services, their understanding of their social, cultural, and economic 'line print' is often under-developed. A central goal of the course is to provide a more nuanced and informed understanding of the complexities of what it means to live an appreciable portion of one's life online. The course critically examines what is 'new' about 'New Media' by assessing the technological, social, and cultural developments that have taken place at the nexus of our digital and corporeal lives. The course equips students with the critical/cognitive tools required to navigate the often taken-for-granted terrain upon which they conduct a large and consequential segment of their lives.	Faculty of Arts, Humanities & Social Sciences	Online Learning.
2013	Open and Online Learning Strategic Development Grant	Revisiting the History of Crime	Adam Pole and Miriam Wright, History	\$10,000	This initiative substantially revises an existing, large (120-150 students) second-year History course, 43-287-91 the History of Crime. It is a requirement for the Combined Bachelor of Arts in Forensics program, many Criminology majors take it, and it is a very popular service course. The previous course-content delivery format included audio podcast lectures and journal article readings. While this was an adequate method to deliver lecture content, it has not captured the imagination of students and really drawn them into the subject. The course is re-imagined with the course content redeveloped into a multi-format delivery system which includes video lectures, digital historical documents, photographs, and web links. The redesigned course takes advantage of new approaches to online teaching and learning, and new software to better engage and retain students and to enhance their learning. Student retention numbers are being tracked to assess the outcome of student experience, and course evaluations are being compared to evaluations from previous offerings.	Faculty of Arts, Humanities & Social Sciences	Online Learning; Course Development; Undergraduate Students.
2013	Open and Online Learning Strategic Development Grant	Electronic Architectural Portfolio Research Project	Veronika Mogorodny, Creative Arts	\$3,000	The National Architectural Accreditation Board (NAAB) is the body that accredits the VABE program. Accreditation is done every five years, and schools are obliged to have samples of student work for all years between the qualification periods. NAAB requires that architecture students maintain a portfolio of design work reflecting their skills, growth and change over time, and noteworthy achievements. This project reviews, assesses, and selects an electronic portfolio system, and develops templates that allows VABE students to collate their architectural work throughout their 3 year program at UWindsor. The electronic portfolio has three roles: 1) It acts as a repository where examiners of the VABE program can view students' work over time and ascertain whether NAAB's "Student Performance Criteria" are met. 2) It provides a structure students can use to record their design ideas and artistic expressions to provide self-examination and exhibition opportunities. 3) It offers students a location where they can place information which can be referenced when applying for co-op placement.	Faculty of Arts, Humanities & Social Sciences	Online Learning; Architecture Students.
2013	Open and Online Learning Strategic Development Grant	ePortfolio development for School for Arts and Creative Innovation	Rod Strickland, Brent Lee, Julie Sando, Michele Tarallo, Jennifer Willet and Sigi Torinus, Creative Arts	\$3,000	This project develops an ePortfolio system and process to help students gain an understanding of their creative work in a larger socio-cultural and career context. An ePortfolio elevates the entry standards for applicants into the program, opens new pathways for in-program students to garner feedback, develops professional attitudes toward career possibilities, and provides a useful record to track student progress through their program. It also benefits the school's public profile, specifically with respect to recruitment, retention and reputation. The ePortfolio is piloted in six Visual Arts studio courses, with the ultimate goal of employing ePortfolios throughout the curriculum.	Faculty of Arts, Humanities & Social Sciences	Online Learning; Creative Arts Students.

2010/11	Centred on Learning Innovation Fund (CLIF)	A Checklist for Evaluating Course Curriculum and Teaching	Jim Coyle and Irene Carter, Social Work	N/A	This project uses a formative evaluation process to develop a Course Evaluation Checklist. Higher education instructors are expected to develop course curriculum, effectively teach lessons, and assess student learning, often with limited training. While there are many resources available to help instructors, a checklist of elements associated with effective course creation and presentation is a helpful guide for new instructors and can also assist experienced instructors or academic units when planning new courses or reviewing the effectiveness of existing courses. The candidate checklist is drafted from a synthesis of pedagogical literature, and focus groups composed of faculty, students, and learning specialists review draft checklists and suggest improvements. Comments from instructors who use the checklist to evaluate individual courses are guiding final revisions. The Course Evaluation Checklist is a user-friendly tool that can be distributed by the Centre for Teaching and Learning of resources for instructor orientation and training sessions.	Faculty of Arts, Humanities & Social Sciences	Course Development; Teaching Support; Resource Development; Faculty; Sessional Instructors.
2010/11	Centred on Learning Innovation Fund (CLIF)	Efficacy of MyLearning Products in Student Assessment	Ken Cramer, Psychology	N/A	Publishers of resources for secondary and post-secondary education are becoming more innovative in developing tools for mastery of course material. For example, MyPsychLab is composed of pre-tests which can only be completed once, and post-tests which can be taken repeatedly after the text is read until mastery of the material is reached. Given that such a tool is assumed to promote mastery of the material, educators expect that student performance on these tools would be related to course performance in more traditional formats. Only one study to date (Cramer et al., under review) has assessed MyPsychLab. A sizeable relationship between MyPsychLab and five additional tools that evaluate course performance was identified in a large sample of students enrolled in an introductory Psychology course, and MyPsychLab was significantly correlated with other measures of course performance. Moreover, data reduction techniques revealed that performance on MyPsychLab was the highest loading item on a factor that assessed overall course performance and psychology mastery. This study expands on that study to evaluate the efficacy of other MyLearning products used at UWindsor.	Faculty of Arts, Humanities & Social Sciences	Product Evaluation; Undergraduate Students; Large Classes; Introductory Classes.
2014-2015	The Office of the Vice-Provost, Teaching and Learning	Teaching Leadership Chairs	Ken Cramer, Psychology	\$15,000 annually for three years	The primary areas of activity for this Chair include the establishment of the Canadian International Teaching and Learning Academy, organization and delivery of professional development events, becoming familiar with the needs of international faculty, and studying the possibility of a similar summer academy designed for North American university instructors. In addition, an initiative designed to build skills for success among first-year students will be expanded.	Faculty of Arts, Humanities & Social Sciences	Professional Development; Faculty; Leadership; Sessional Instructors; International Faculty; First-Year Students.
2013	Open and Online Learning Strategic Development Grant	Introductory Psychology I Online	Ken Cramer	\$10,000	This project develops an online version of a large first-year introductory Psychology course, focusing on four key activities: creating narrated PowerPoint shows using an in-house program called Showtime; uploading online video clips and/or weblinks for student review; preparing assignments for both online submission and grading via peer review, and on-site testing. The lectures are recorded and the online course is constructed while the conventional course is running to ensure maximum familiarity and optimal delivery of course material.	Faculty of Arts, Humanities & Social Sciences	Online Learning; Course Development; Undergraduate Students; First-Year Students.
2007/08	Centred on Learning Innovation Fund (CLIF)	Fugitive Pages: Recovering the Underground Railroad in Print	Suzanne Matheson, English Literature & Creative Writing; Heidi Jacobs, Leddy Library	N/A	This new course is an upper-level interdisciplinary practicum course team-taught by Dr. Suzanne Matheson (Department of English) and Dr. Heidi Jacobs (Leddy Library). By conducting their own original primary research into African Canadian print culture of the 19th century, students explore this region's rich history and its connections with the Underground Railroad. Through the creation of a digital archive and/or physical exhibition, students come to understand the social and political contexts of historical preservation in the past, present, and future, and consider how to disseminate their knowledge to their peers, the campus, the local community and, potentially, the world. Students learn that a printed page is not a solitary, silent, or static record, but a living and collaborative production, the sum of many voices and narratives.	Faculty of Arts, Humanities & Social Sciences; Leddy Library	Undergraduate Students; Interdisciplinary; Digital Archive; Course Development.
2010/11	Strategic Priority Fund	Proposal to Develop a Program in Digital Journalism	Blake Roberts, Inter-Faculty Programs; Mandy Gervais and Katherine Quinsey, English Language, Literature & Creative Writing; Tom Najem and Kai Hildebrandt, Political Science; Inv Goldman	\$20,000 one time funding	This new digital journalism program provides opportunities for undergraduate students to pursue a career which is by its nature interdisciplinary and integrated with the community. The program promotes research in this area by both students and current faculty, and may lead to the development of a new graduate program.	Faculty of Arts, Humanities & Social Sciences; Centre for Inter-Faculty Programs	Program Development; Multidisciplinary; Collaboration; Course Development; Community Outreach; Job Creation; Undergraduate Students.

2010/11	Strategic Priority Fund	Support for a First Course in Anthropology	Beth Daly, Inter-Faculty Programs	\$13,000 one time funding	This is a new first-year course in anthropology, a new interdisciplinary field that studies relationships between humans and animals. The course paves the way for development of a new interdisciplinary program which enhances undergraduate offerings at U Windsor. The course includes a requirement to actively participate in local experiential learning opportunities, which enhances the University's relationship with the community.	Centre for Inter-Faculty Programs	First-Year Students; Course Development; Undergraduate Students; Program Development; Community Outreach.
2011/12	Strategic Priority Fund	Digital Journalism - Phase II	Cecil Houston, Arts, Humanities & Social Sciences	\$111,000, One Time	This initiative is the second phase of the development of the Combined Honours Degree in Digital Journalism (DJ). The program provides students with an opportunity for applied learning and research, and could eventually lead to the establishment of a graduate program. Previous investment from the 2010/11 SPF supported developing the program and courses coordinated with CTL and the three departments initially involved in the combined honours degree, establishing a DJ website, developing and managing a marketing campaign, and organizing a community/professional advisory panel. The 2011/12 SPF funding will support the program launch and successful first year integration.	Centre for Inter-Faculty Programs	Program Development; Multidisciplinary; Collaboration; Course Development; Undergraduate Students.
2012/13	Strategic Priority Fund	Development of Two New Courses in Human-Animal Studies	Beth Daly, Inter-Faculty Programs	\$25,000, One-time funding over two years	This initiative develops and implements two new anthropology courses, and furthers the potential for a new interdisciplinary program in this field.	Centre for Inter-Faculty Programs	Course Development; Undergraduate Students; Program Development.
2012/13	Strategic Priority Fund	Field, Laboratory, and Demonstration Equipment for Enhancing the Environmental Science Curriculum and Community Outreach Activities	Maria Cioppa and Joel Gagnon, Earth & Environmental Sciences	\$65,000, One-time funding	This initiative significantly enhances the recently redesigned environmental science curriculum by purchasing the up-to-date instrumentation necessary for in-class and in-field experiences as well as hands-on experimentation. The equipment also supports demonstrations and talks at local schools and in the community.	Centre for Inter-Faculty Programs	Hands-on Learning; Science Students; Undergraduate Students; Community Outreach;
2011/12	Centred on Learning Innovation Fund (CLIF)	CSI-Windsor: Forensics Hands-On	Shashi Jasra, Inter-Faculty Programs	N/A	The "CSI-Windsor: Forensics Hands-On Workshop" initiative scales up previous small workshop offerings to create an experiential learning opportunity for the 200 students in 14-17-201 Introduction to Forensic Science. The workshop experience is included in the course structure and contributes to student assessment. Crime scenes are created with collaborations from professional experts (Mr. Wade Knapp, Forensic Ident. Unit., Toronto and experts from Ontario Police College, Aylmer). The students learn to collect and analyze various kinds of evidence generally found at the crime scene like samples of hair, fiber, blood and saliva stains, DNA, spent bullet shells, fingerprints, blood spatter, documents, drugs etc. Students submit the results of their analyses in a Forensic Report, following industry recommendations. Video and photos are collected during the workshops for use in other online resources. The scaled-up workshop is a model for offering the workshop to a broader audience, including students in other programs and in the community.	Centre for Inter-Faculty Programs	Experiential Learning; Large Classes; Hands-on Learning; Secondary Students.
2012/13	Strategic Priority Fund	e-Textbook Initiative: Mapping our Digital Future	N/A	\$120,000, One-time funding over two years \$34,732	This collaborative project tests and evaluates available e-textbook models and modes of delivery to develop recommendations and options for wide-scale adoption of e-textbooks at U Windsor.	Leddy Library	Collaboration; e-Textbooks; Product Evaluation.
2013/14	Strategic Priority Fund	Library and Academic Literacy Enhancement Program for International Students	Guoying Liu, Leddy Library; Karen Pillon, IT Services; Zuo Chen Zhang and Shi Jing Xu, Education; Clayton Smith, Office of the Vice-Provost Students and International		This project enhances the library and academic literacy skills of international students at U Windsor. The program enables students to critically take on and respond to the world around them, and become not only consumers of information, but ultimately, responsible creators of it.	Leddy Library; Faculty of Education & Academic Development; Office of the Vice-Provost Students and International	
2012/13	Strategic Priority Fund	Financial Markets Lab Systems	Andrew Kuntz and Allan Conway, Business	\$100,000, One-time funding over two years	This investment partially supports the Odette Financial Markets Lab as it establishes a stable funding base for future operations. The Financial Markets Lab was unique in the country at the time of its unveiling, and contractors continue to highlight it as the preeminent design example to other business schools interested in creating their own trading labs. The Lab is a significant draw for students and provides exceptional hands-on learning for students preparing for careers in the financial industry.	Odette School of Business	Lab Development; Hands-on Learning; Undergraduate Students.
2013	Undergraduate Research Experience Grant	Review of Entrepreneurship at Marginalized Populations Including Youth and Women	Francine Schlosser, Business	\$1,000	In this study, a group of undergraduate students conducted a literature review of academic and practitioner knowledge of entrepreneurial mentoring programs, including policies and practices that target at-risk youth, including single mothers. The students researched best practices and identified mentoring opportunities that could be introduced into the Windsor-Essex County community. The results of the research were used to support a youth entrepreneurship application to the Ministry of Economic Development and Employment.	Odette School of Business	Research; Undergraduate Students; Entrepreneurship

2013	Open and Online Learning Strategic Development Grant	Online and Hybrid Course Development in Business	Rajeeva Sinha and Renata Kobe, Business	\$10,000	This project develops active-learning, student-centred online course formats that complement current offerings of Introduction to Finance and Business Ethics in a Global Context. They are both mandatory business courses, and are currently only offered via face-to-face in-class meeting. The resulting courses can be delivered both online and in a blended hybrid model.	Odette School of Business	Online Learning; Business Students.
2011/12	Strategic Priority Fund	CA Bridge Program	Allan Conway, Business	\$440,000 One Time: \$88,000 for each of five years commencing in 2011/12	This initiative supports the partnership between the Odette School of Business (OSB) and the Institute of Chartered Accountants of Ontario (ICAO) to establish a Chartered Accountant (CA) Bridge Program at the OSB. The CA Bridge program allows students who already hold a four-year Bachelor's degree to complete the courses required for a CA professional accounting designation without having to complete a second degree. The ICAO pledged annual funding for 5 years to partially support the appointment of a Program Director.	Odette School of Business	Undergraduate Students; Collaboration; Professional Development.
2012/13	Strategic Priority Fund	Accounting Online Course Development	Andrew Kuntz and Allan Conway, Business	\$180,000 One-time funding over three years	This initiative develops online accounting courses in conjunction with the CA Pathways Initiative, in partnership with the Institute of Chartered Accountants of Ontario. Online and blended courses are redesigned using the University's new online synchronous learning tool (Collaborate), ensuring pedagogically effective programs and providing transitional support to course instructors.	Odette School of Business	Online Learning; Course Development; Blended Learning; Undergraduate Students.
2008/09	Centred on Learning Innovation Fund (CLIF)	Enhancing the First Year Business Communication Experience	Francine Schlosser, Business	N/A	This initiative enhances the 04-71-100 Business Communications course (required for approximately 500 students annually) with an in-course debate competition. By exposing new students to a variety of extra-curricular clubs and interest groups on campus, this project encourages students to become active participants and contributors at UWindsor. Students are introduced to many senior student mentors, and these senior students have new opportunities to develop and sustain their club memberships. The topics of the debates encourage students to analyze and develop arguments regarding a variety of business areas. They develop research skills that are important to future success in the BComm program.	Odette School of Business	Undergraduate Students; First-Year Students; First-Year Experience; Mentorship.
2011/12	Centred on Learning Innovation Fund (CLIF)	Business Simulation to Improve Student Engagement	Maureen Gowing, Business	N/A	This study examines student reports of perceived changes in engagement across a series of elements, in particular business simulation, within a third-year advanced managerial accounting course. The elements include online assignments (publisher-provided and individual assessment), use of tables, exhibits from the text during class presentations by the professor, two collaborative case presentations for assessment, and two Harvard business simulations (one individual, one collaborative).	Odette School of Business	Student Engagement; Undergraduate Students.
2014-2015	The Office of the Vice-Provost, Teaching and Learning	Teaching Leadership Chairs	Maureen Gowing, Business	\$15,000 annually for three years	The primary areas of activity for this Chair include data collection on current hybrid teaching practices and perceptions of online and hybrid courses, including obstacles to change, in the Odette School of Business, and creating communities of practice and specialized training for both instructors and TAs engaged in online and hybrid teaching.	Odette School of Business	Professional Development; Faculty; Leadership; Sessional Instructors; Blended Learning; Online Learning; Communities of Practice; Graduate Assistants; Teaching Assistants; Instructor Training.
2013	Open and Online Learning Strategic Development Grant	CA Pathway Non-Accounting Course Development	Jim Stevens, Erdal Gunay, and Craig Allen, Business; Srabanti Chitite, IT Services; Michael Charrette, Economics; Rick Caron, Mathematics & Statistics	\$18,000	The Odette School of Business (OSB) entered into a partnership with the Institute of Chartered Accountants of Ontario (ICAO) in 2011 to establish a CA Bridge program. The purpose of the CA Bridge program (now titled the Odette CA Pathway) is to allow students who already hold a four-year Bachelor's degree to complete the courses required for a CA professional accounting designation without having to complete a second degree. Odette subsequently pursued and received Strategic Priority Funding to hire a Program Director and finance the upgrading of all accounting courses in this program to online or blended delivery versions. This phase develops online or blended delivery versions of the six non-accounting courses required within the CA Pathway.	Odette School of Business	Online Learning; Course Development; Collaboration; Professional Development.
2007/08	Centred on Learning Innovation Fund (CLIF)	Design and Implementation of a Learning Outcome-Driven MIS Curriculum	Diana Kao, Gokul Bharat Maheshwari, Business	N/A	This initiative develops an integrated Management Information Systems (MIS) curriculum consisting of six courses at the Odette School of Business. The new curriculum is driven by learning outcomes of both the overall MIS curriculum and each course. The curriculum gives equal emphasis to knowledge discovery and experiential learning by using the same real-world case study throughout. Computer-based exercises reinforce underlying concepts. The innovative approach of this project includes developing one comprehensive, regional case and associated resources (questionnaire, databases etc.) and using them in all MIS courses to support incremental learning and achieve a high level of curriculum integration. Odette has recently completed its first phase of curriculum redesign for the 1st and 2nd year courses using the learning-centred approach. The second phase of this redesign requires each discipline at Odette to define its objectives and learning outcomes. The MIS curriculum serves as a model to promote the learning-centred culture/practice for other disciplines at Odette.	Odette School of Business	Online Learning; Course Development; Course Materials; Learning-Centred Practices.

2009/10	Centred on Learning Innovation Fund (CLIF)	Enhancing Student Learning Experiences in Introductory Statistics Labs	Mohammed Baki, Business; Fouzia Baki, Industrial & Manufacturing Systems Engineering	N/A	It is important that students learn statistics in an active learning environment (Johnson et al, 2008; Tanner, 1985). From discussion with students, we pinpoint a few inherent problems of Treatment of Experimental Data, an introductory statistics course for second-year engineering students, including disconnection between exercises and students' lives, absence of opportunities to share thoughts and ideas among students, and little contribution of graduate assistants in the learning experience. This study investigates and addresses these problems. Students use data to implement statistical concepts. In some labs, we involve students to generate data set by doing simple experiments. In other labs, students use data provided in the texts. We compare the impact of the source of data on student's problem solving ability. We also examine the impact of group and individual learning atmosphere on student learning experience by giving students both individual and group activities during labs. To ensure better interaction between GAs and students, we prepare GAs through planned meetings and structured activities before and after labs. This part of the project has a long-lasting impact on professional development of the graduate assistants. The process of lab activity redesign, the results, and the lessons learned are transferred to other courses.	Odette School of Business	Undergraduate Students; Student Success.
2012/13	Strategic Priority Fund	Support for Expanding the Outstanding Scholars Program	N/A	\$80,000, Base funding	This initiative expands the Outstanding Scholars program to include all first-entry undergraduate degree programs. It further establishes a scholar development strategy to improve student success rates in international scholarships and awards competitions.	Office of the Vice-Provost, Students	First-Year Students; Scholarships; Student Employment; Undergraduate Students; Student Success.
2007/08	Centred on Learning Innovation Fund (CLIF)	Windsor Internship Program	Clayton Smith, Office of the Vice-Provost, Students and Registrar, Karen Benzinger, Centre for Career Education	N/A	Experiential education has long been recognized as a learning-centred practice with strong benefits to students. These benefits include stronger academic performance, higher motivation and satisfaction as well as the development and transfer of knowledge and skills. In addition, students involved in work-based experiential learning enjoy greater clarity in career directions and develop an understanding of workplace realities. A wide variety of work-based experiential education opportunities exist at UWindsor, including co-operative education, field placement, and course-based practicum. However, these are limited to a relatively small number of academic programs. This initiative develops an internship model that can apply to many more programs and students. It includes research on similar programs at other schools, a candidate program structure, learning outcomes, and related educational strategies/assessment methods, a budget forecast, and recommended implementation steps.	Office of the Vice-Provost, Students and International	Experiential Learning; Learning-Centred Practices; Internships; Research; Student Experience.
2011/12	Strategic Priority Fund	Open Learning: Thinking Forward at the University of Windsor	Alan Wright, Office of the Vice Provost, Teaching and Learning	\$200,000, Base Funding	This investment establishes an Open Learning Office which reports to the Vice Provost of Teaching and Learning. This office has the responsibility of establishing, coordinating and promoting, in a systematic way, the development of on-line, hybrid, distance and continuing education course and programs at the University. The investment supports a Senior Director as well as an Assistant. They play a lead role in the development of Open Learning at the University. This investment enables the University to establish an infrastructure that fosters innovation.	Office of the Vice-Provost, Teaching and Learning	Online Learning; Blended Learning; Course Development; Distance Education.
2011/12	Strategic Priority Fund	Development of University Teaching Through Peer Consultation	Alan Wright, Office of the Vice-Provost, Teaching and Learning; Dave Andrews, Kinesiology; Tamsin Bolton, Luddy Library; Ken Cramer and Jill Singleton-Jackson, Psychology; Sivaram Pandey, Chemistry & Biochemistry	\$80,040 One Time; \$29,390 in 2011/12, \$33,890 in 2012/13 and \$16,760 in 2013/14	This project establishes, promotes, and assesses the initial impact of a professional and pedagogical peer consultation process designed to improve teaching, improve peer evaluation of teaching, and improve the status of teaching at UWindsor. Peer consultation engages students and teachers in improving the teaching and learning experience at Windsor, opens a faculty-initiated dialogue about the value and valuing of teaching, broadens the forms of data available for faculty seeking to create a clear representation of their pedagogical practice, and promotes continuous and reflective growth as baseline practice for faculty members at all stages of their careers. The project is directly related to improving the collegial culture of the University, improving faculty retention and recruitment, and fostering an increasingly scholarly yet applied approach to improving student learning and the student experience on campus.	Office of the Vice-Provost, Teaching and Learning	Professional Development; Faculty; Sessional Instructors; Communities of Practice; Instructor Training.

2013/14	Strategic Priority Fund	Teaching Leadership Chairs : A Cost-efficient Approach to Enhancing the Quality of the Student Learning Experience at the University of Windsor	Alan Wright, Office of the Vice-Provost, Teaching and Learning; Donna Eansor, Law; Tina Pugliese, Dramatic Art; Vincent George, Business; Geri Salintri, Education; Lionel Walsh, Arts, Humanities & Social Sciences; Judy Bomais, Nursing; Kathryn Lafreniere, Psychology; Erika Kustra, Centre for Teaching and Learning	\$60,000 (base)	This investment establishes four Teaching Leadership Chairs (TLCs) at UWindsor: full-time faculty members who lead and promote educational initiatives, work in advisory capacities across campus and with their faculty colleagues, pursue external funding for educational initiatives, and in general foster faculty-led improvements to teaching and learning at the University.	Office of the Vice-Provost, Teaching and Learning	Communities of Practice; Leadership; Professional Development.
2013/14	Strategic Priority Fund	Promoting Undergraduate Research: A Catalyst for Enhanced Student Experience, Reputation, and Recruitment	Alan Wright, Office of the Vice-Provost, Teaching and Learning; Erika Kustra, Centre for Teaching and Learning	\$20,000	This initiative supports instructors seeking to enhance student learning through undergraduate research opportunities across the curriculum.	Office of the Vice-Provost, Teaching and Learning; Office of Research Services	Undergraduate Students; Research; Student Success.
2007/08	Centred on Learning Innovation Fund (CLIF)	Developing a Mentorship Role in Associate Teachers	Karen Roland, Geri Salintri, Guoqiang Zhou and Christopher Greig, Education	N/A	This initiative develops a stronger linkage between the mentorship role of associate teachers and teacher candidates' learning outcomes. Associate teachers play a significant role in the professional and social development of teacher candidates during the practicum. The practicum placement is a collaborative opportunity for teacher candidates to integrate the theory and pedagogical principles learned during faculty course work, with experiential learning during the teaching practice in the classroom. Of critical importance in defining and clarifying the role of the associate teacher is the nexus between associate teacher learning outcomes and those of our teacher candidates. There is a direct and indelible link between associate teacher efficacy as mentor and successful learning outcomes for teacher candidates. By combining face-to-face with virtual learning opportunities for the associate teachers and teacher candidates, we can monitor, assess, and evaluate strategies used in this project in terms of mutual learning, empowering the learner, and in providing a medium for accessible feedback.	Faculty of Education & Academic Development	Online Learning; Mentorship; Experiential Learning; Education Students.
2013/14	Strategic Priority Fund	Adapted Physical Exercise for Special Populations : A Community Partnership	Sean Horton, Chad Sutherland and Nadia Azar, Kinesiology	\$25,100	In this initiative, a part-time University-Community Partnership Coordinator expands and solidifies the community partnership base in Human Kinetics, and secures corporate sponsorship to ensure program continuity and sustainability. The initiative focuses on an existing partnership with Community Living Essex County which provides adapted physical exercise and motor skill development programs for their supported members. The funding enables the team to continue to provide specialized personal programming free of cost to participants, while providing undergraduate students with important practical experience.	Faculty of Human Kinetics	Job Creation; Community Outreach; Experiential Learning; Undergraduate Students; Student Experience.

2012/13	Strategic Priority Fund	Human Performance and Health Community Initiatives	Dave Andrews, Krista Chandler, Adriana Duquette, Sean Horton, Cheri McGowan, Sarah Woodruff, Atkinson and Linda Barson, Kinesiology, Charital Vallee, Athletics & Recreational Services	\$103,184, One-time funding over two years	The Centre for Human Performance and Health (CHPH) develops, implements, supports and promotes community-based initiatives related to performance and health. Initiatives focus on three key strengths of staff and faculty within the Faculty of Human Kinetics: sport performance, active and healthy living, workplace training and injury prevention. CHPH operates on a cost-recovery basis after the funding period.	Faculty of Human Kinetics	Community Outreach; Experiential Learning; Professional Development.
---------	-------------------------	--	---	--	--	---------------------------	--



Appendix B

CLIF Impact Study Interview Protocol

CLIF Impact Study: Principal Investigator and Co-investigator Survey and Interview

SECTION 1: APPLYING FOR A CLIF GRANT

1A. Why did you apply for a CLIF grant?

1B. How did you identify the project for which you sought funding?

1C. Did you encounter any challenges applying for the grant?

SECTION 2: FOCUS OF YOUR CLIF GRANT PROJECT

2A. Did the nature or focus of your CLIF grant project change after you received the grant?

Yes

No

2B. What types of changes did you make?

2C. What factors influenced these changes?

SECTION 3: CLIF GRANT OUTCOMES

3A. What outcomes or accomplishments did you achieve with your CLIF grant project?

3B. What challenges, if any, did you experience in achieving these outcomes?

3C. Were you able to modify your grant project to address these challenges?

3D. In implementing the CLIF grant project did you develop new collaborations with:

Faculty in your own department

Faculty in another department

Faculty at another University

Other colleagues in the community or organizations outside of academia

Other collaborators

Not applicable

3F. Did any mentoring relationships evolve out of the CLIF grant project?

Yes

No

If so, please describe.

3G. Did your CLIF grant project result in any negative impacts on your networks or collaboration?

- Yes
- No

If so, please describe.

3H. Through the work on the CLIF grant, were you able to engage in discussions regarding pedagogical changes with:

- Colleagues in your department
- Colleagues outside of your department
- Students
- Your department head/director
- Your dean

Please describe.

3I. Through the work on the CLIF grant, were you asked to be part of any of the following:

- Committees on curriculum or pedagogical development?
- Leadership initiatives—either formal or informal—within your department, faculty or across the University?
- Mentoring, such as a peer mentor?
- Advocacy for curriculum or pedagogical development?

3J. Did the results of your CLIF grant project encourage other colleagues to pursue similar projects, or incorporate your findings?

- Yes
- No

3K. On a scale from 1-5, how did the CLIF grant project assist you with:

(1=had no contribution) (2=contributed slightly) (3=contributed moderately) (4=contributed substantially) (5=was essential)

	1	2	3	4	5
Your own teaching development?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course revisions?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New directions or priorities in teaching?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of new courses or curricula?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of new educational resources?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Additional research focus or projects?

Other scholarly work related to your CLIF grant project?

3L. Which of the following next steps do you intend to pursue as a result of the CLIF grant project?

Additional teaching-related grants

Additional research-related grants

Publications

Reports

Conference presentations

Teaching award

Other award

**3M. On a scale from 1-5, has the CLIF grant project changed the way you think about yourself as:
(1=had no contribution) (2=contributed slightly) (3=contributed moderately) (4=contributed substantially)
(5=was essential)**

1 2 3 4 5

An instructor?

As someone engaged in teaching-related research?

As an educational leader?

3N. Has the CLIF grant project led you to advocate for educational changes?

Yes

No

If so, how?

3O. Has the CLIF grant project led you to advocate for increased recognition for teaching and learning?

Yes

No

If so, how?

SECTION 4: CLIF GRANT SUPPORT

4A. What additional resources or support would have enhanced your CLIF grant project?

4B. Would you apply for another CLIF grant?

Yes

No

4C. Why would you, or why would you not apply for another CLIF grant?

4D. What additional resources, opportunities or activities would further help you develop as an educational leader now that the CLIF grant project is complete?



Appendix C

CLIF Impact Study Network Maps

Figure a: CLIF Network Map

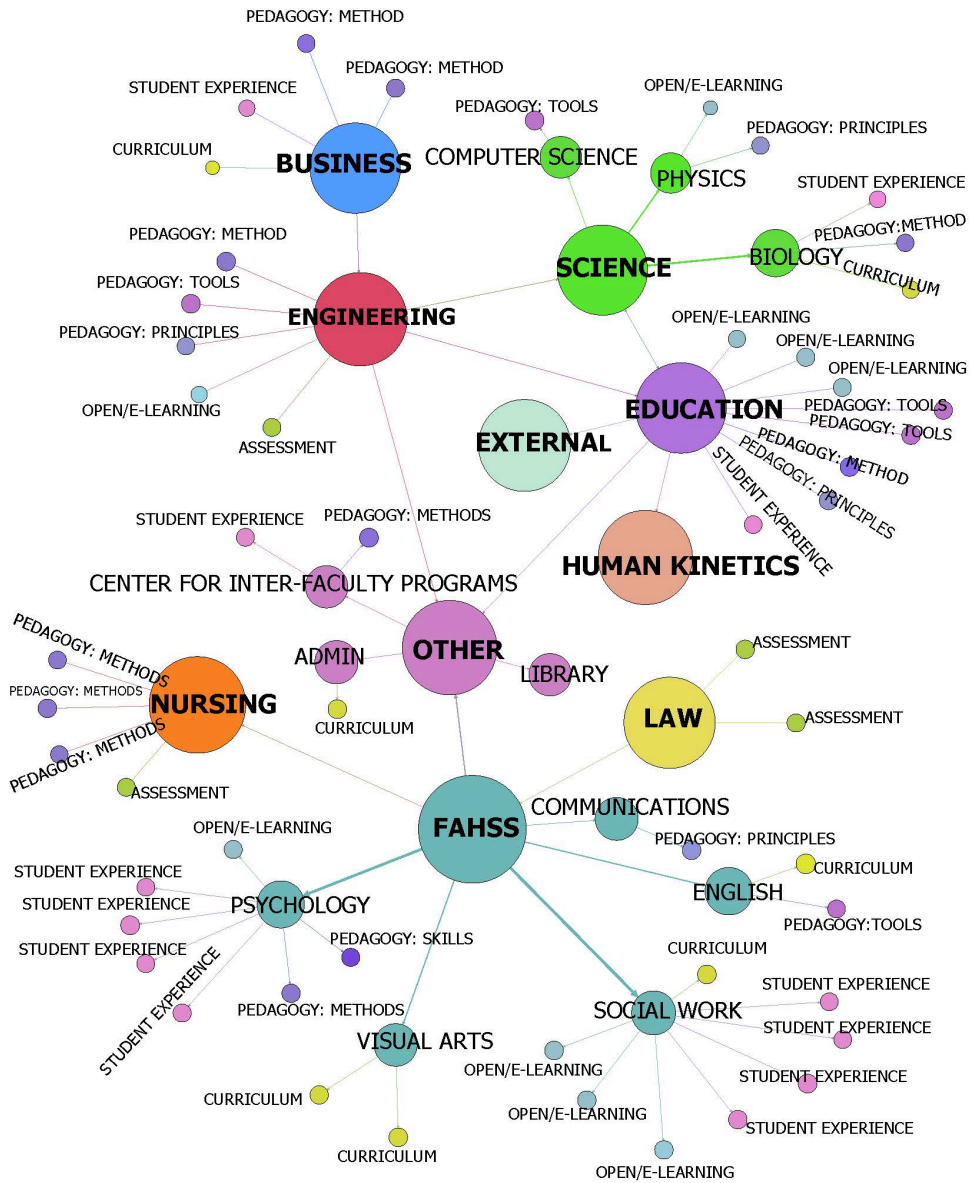
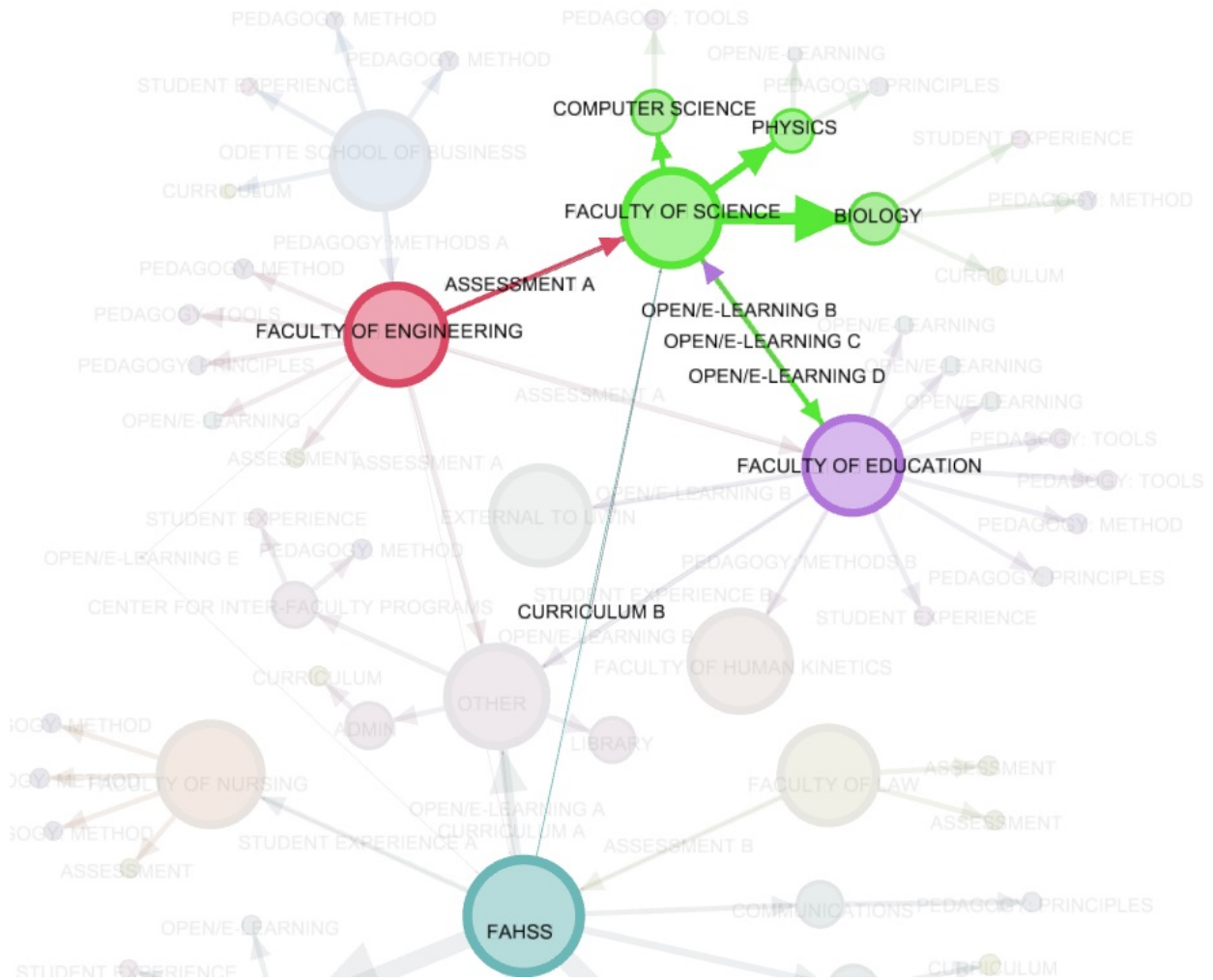



Figure b: CLIF Network Map of Projects in the Faculty of Science





Appendix D

Opportunities for Collaboration in the
International Context

Benchmarks for distributed leadership

Benchmarking is a process by which Australian higher education institutions evaluate their current practices. In this case the benchmarks are designed to evaluate distributed leadership against previously determined reference points. The points of reference have been determined by past practice in Australian higher education institutions.

The purpose of this benchmarking activity can be categorised as ‘good practice benchmarking’ as the comparator selected is believed to be the best in the area to be benchmarked.

The identified benchmarks are criterion referenced in the sense that they define the attributes of good practice in distributed leadership identified from the experience across Australian higher education institutions of using a distributed leadership approach to achieve change to improve learning and teaching.

The method used to undertake the Benchmarking in this instance is a mix of a comparison of performance indicators developed from publicly available information and activity-based benchmarking that identifies a typical selection of activities selected for comparison. These results can be considered in relation to the specific activities of may be used as a proxy indicator of an entire institution’s performance.

The Benchmarks are also classified as collaborative benchmarking as it is focused on processes as an aid to collaborative learning and self-improvement, as part of a continuous action learning/action research enhancement cycle.

The benchmarks are scaffolded upon the information collected from a national survey of the existence and spread of distributed leadership related systems and frameworks currently employed across the Australian higher education sector. This survey revealed a high level of acceptance of the need to take action as identified in the Action Self Enabling Reflection Tool (ASERT). That is - to develop and encourage a context of trust, a culture of respect for individual expertise, a commitment to change and the development of collaborative relationships.

The benchmarks for distributed leadership were designed in accordance with the six tenets of distributed leadership identified in the 6E conceptual model of distributed leadership - Engage, Enable, Enact, Encourage, Evaluate and Emergent.

From these six tenets, five **domains** for benchmarking were identified - Engage, Enable, Enact, Assess and Emergent. The sixth tenet, Encourage, was recast as part of the ‘good practice’ benchmark descriptor.

Each of the five domains were identified by a **scoping statement**. With each of the scoping statements then classified into **elements**. Finally, each of the elements has a **good practice** descriptor.

The benchmarks for distributed leadership are designed to enable institutions to identify and evaluate their own practice.

Benchmark Domains

Engage

The domain of *engage* covers aspects of distributed leadership related to the degree and breadth of involvement of individuals. This benchmark includes measurement of the extent of engagement of leaders with institutional responsibility, informal leaders and discipline and functional experts

Enable

The domain of *enable* covers the aspects of distributed leadership that address the need for a context of trust and a culture of respect that acknowledges the expertise that individuals can contribute. This benchmark includes the extent to which there is acceptance of the need for change from the traditional reliance upon positional managerial hierarchies to more collaborative approaches to developing relationships

Enact

The domain of *enact* covers the aspects of distributed leadership that requires a more holistic process. This benchmark includes the extent to which people, the processes, support and systems are implemented to encourage a distributed leadership approach.

Assess

The domain of *assess* covers the area of distributed leadership concerned with identifying evidence of the contribution of distributed leadership to leadership capacity building. This benchmark includes evaluating cross correlations between distributed leadership and increased engagement in learning and teaching, collaboration and growth in leadership capacity.

Emergent

The domain of *emergent* covers the area of distributed leadership concerned with sustaining distributed leadership over time through action research cycles. This benchmark includes evidence of a participative action research process, reflective practice and continuous improvement.

The Benchmarking Framework for Distributed Leadership is provided in Table 1.

Table 1 Benchmarking framework for Distributed Leadership

DOMAIN	SCOPE	ELEMENTS	GOOD PRACTICE DESCRIPTOR
ENGAGE	Distributed leadership engages a broad range of participants from all relevant functions, disciplines, groups and levels. This includes formal leaders, informal leaders and experts	Formal leaders (academic and professional)	Formal leaders proactively support initiatives through attendance at meetings, publication of activities and other sponsorship activities.
		Informal leaders	Staff participate in learning and teaching enhancement and are recognised for their expertise through good practice
		Discipline experts	Academics from relevant disciplines contribute their discipline expertise to initiatives either through self-nomination or peer nomination.
		Functional experts	Professional staff contribute their relevant functional expertise to initiatives either through self-nomination or peer nomination.
ENABLE	Distributed leadership is enabled through a context of trust and a culture of respect coupled with effecting change through collaborative relationships	Context of trust.	Decisions made in initiatives are based on respect for and confidence in the knowledge, skills and expertise of academics and professional staff in addition to the relevant rules and regulations.
		Culture of respect	Decisions made in initiatives are shared between all participants based on their expertise and strengths.
		Acceptance of need for change	Initiatives combine formal leadership authority, relevant rules and regulations and the expertise of staff in an integrated top-down, bottom- and middle-up approach.
		Collaborative relationships	Participants in initiatives are provided with professional development opportunities as well as experienced facilitators and mentors to encourage collaborative decision making.
ENACT	Distributed leadership is enacted by involvement of people, the design of processes, the provision of support and the implementation of systems	Involvement of people	Initiatives identify and encourage the participation of experts from among all relevant academic and professional staff.
		Design of participative processes	Communities of practice and other networking opportunities are encouraged and supported.
		Provision of support	Space, time and finance for collaborative initiatives are provided.
		Integration and alignment of systems	Systems are aligned to ensure that decisions arising from initiatives are integrated into formal policy and processes.
ASSESS	Distributed leadership is best evaluated drawing on multiple sources of evidence of increased engagement collaboration and growth in leadership capacity	Increased engagement	Performance review processes acknowledge individual engagement in initiatives.
		Increased collaboration	Data (such as university cultural surveys; collaborative grant applications related to learning and teaching enhancement; and collaborative publications) identify evidence of increased collaborative activity between staff.
		Growth in leadership capacity	Participation in initiatives is recognised and rewarded.
EMERGENT	Distributed leadership is emergent and sustained through cycles of action research built on a Participative Action Research methodology	Participative action research process	An action research process that encourages participation through cycles of activity underpins the initiative.
		Reflective practice	Reflective practice is built into initiatives as a formal practice and stage of the initiative.
		Continuous improvement	Output from each stage of the initiative will be sustained.

Self Enabling Reflective Process

“The self enabling reflective process outlined [below] presents the process found...to be most effective in assisting institutions to engage in cycles of reflection...This is in keeping with the project conclusion that distributed leadership is a dynamic process that is most effective when accompanied by action reflection to scaffold action through cycles of change. In this process emergent issues are able to be discussed and adjustments made as a process of continuous change and improvement. This sets a basis upon which collective engagement in long-term change can be achieved. Institutions may vary the steps in process to suit particular situations.”*

Step	Reflection on practice	Reflective prompts
One	Identify where a distributed leadership approach is to be enabled	Is this an Institute wide focus, or does it affect a particular section, group of people, program or project?
Two	Identify the <i>criterion</i> (from the action framework above) for distributed leadership on which to focus	Which of the four criteria will provide the initial focus for this project?
Three	Identify the <i>dimension</i> and the associated values (from the action framework) for distributed leadership in relation to the chosen criteria	Which of the four dimensions will provide the initial focus for this project?
Four	Reflection on current action (as identified in the intersecting cell of the action framework)	What is the extent to which the identified action item occurs currently?
Five	Reflection for further action	What action could be taken to identify existing opportunities that have not yet been taken advantage of? What action could be taken to identify new opportunities? What action could be taken to generate new opportunities? What action should be taken to ensure these new opportunities are sustainable?
Six	Reflection to ensure integrated concerted, supportive action	How does the proposed action arising from these reflective prompts affect the other criteria and dimensions? What change is needed in the other four criteria to ensure that the proposed action is implemented?
Seven	Identify a plan of activity to achieve the desired action outcome	Indicative questions: What action needs to be taken? Is there a preferred sequence? Who needs to be involved in action? What time period is involved? Is there need for training/facilitation in reflective processes? What finance is needed?
Eight	Reflect on the outcomes of the action taken in terms of the desired action outcomes	Indicative questions: What worked well? What needs improvement? Who else should be involved? What changes are needed in future actions?
Nine	Adjust the reflective process as needed to flexibly accommodate the specific institutional context and culture	Indicative questions: What difficulties has the process of reflection encountered that is related to the specific institutional context? Do these difficulties warrant a change to the process?

*RMIT University. (2014). Retrieved from <http://emedia.rmit.edu.au/distributedleadership/?q=node/77>