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Fostering a culture of innovation in teaching and learning in research-intensive universities: Implications for academic developers

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Abstract

In this paper we present the goals, structure and impact of five different programs currently operating in four international research-intensive universities, and discuss how these initiatives foster a culture of innovation in T&L at their home institutions. We also discuss the contributions and roles played by academic developers as well as the current dilemmas and open questions we face.

1 Introduction

Higher education institutions around the world are confronted with rapid changes in technology, alternative learning offers outside traditional institutions, and increasingly complex problems to be tackled by future graduates. This puts pressure on faculty and academic developers alike to demonstrate educational leadership and to develop and integrate innovative approaches to teaching, learning and curriculum design. This is a challenge, especially in research-intensive universities where cultures of innovation are established within

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the particular research disciplines but not to the same extent for the corresponding teaching and learning (T&L) practices within or across disciplines (Asarta et al., 2018; Alexander et al., 2019).

In research-intensive universities, programs that invite faculty to teach in non-traditional ways through, for instance, the integration of learning technologies, evidence-based practices, and community service, have grown in diversity and scope over the past decades (Hubball, Clarke, & Pearson, 2016; Wieman, 2017). At the core of these programs are often funding mechanisms that are intended to foster a culture of innovation in T&L in collaboration with faculty, students and other stakeholders. Such approaches are seen as essential contributions to the advancement of faculty and academic developers (Geertsema, 2016), which ultimately helps to prepare research-intensive universities for the future. These approaches also enhance the status of teaching at institutions with a strong research mandate (Mårtensson, 2014).

We discuss how four international research-intensive universities are fostering a culture of innovation in T&L through the implementation of institutional initiatives. Specifically, we share the goals, structure and impact of five different programs currently operating at those universities:

- Teaching and Learning Enhancement Fund (TLEF) & SoTL Seed Program – University of British Columbia (UBC), Canada
- Innovedum fund – ETH Zurich, Switzerland
- Fund for Innovation and Research in Learning and Teaching (FIRLT) – Stellenbosch University, South Africa
- Teaching Fund (Lehrkredit) – University of Zurich, Switzerland

We use program evaluation outcomes as a basis to discuss the contributions and roles played by academic developers as well as the current dilemmas and open questions we face. The relationships our programs have built between faculty and educational developers have provided us with agile strategies to meet the extraordinary challenges faculty, staff and students are currently facing at our universities due to the Covid-19 pandemic.

2 Selected programs and their implications for academic developers

3.1 Teaching and Learning Enhancement Fund (TLEF) and SoTL Seed Program – University of British Columbia, Canada

Two programs at UBC focus on innovation in T&L: The Teaching and Learning Enhancement Fund (TLEF, <https://tlef.ubc.ca>) and the SoTL Seed Program (<https://isotl.citl.ubc.ca/services/sotl-seed-program/>).

The TLEF, created in 1991, has funded over 1300 projects through a competitive process that encourages grass-roots and strategic engagement by teams of faculty, staff and students. In recent rounds priority areas included educational renewal, interdisciplinary education and Indigenous engagement. TLEF projects have a large impact at UBC: projects funded in 2019/20 reached 197 courses, impacting 22,421 students. A sustainment survey in 2018 indicated significant on-going use of resources and practices developed during TLEF projects well beyond the funding period, as well as many instances of projects having an impact well beyond their original scope.

UBC's SoTL Seed Program supports faculty members in engaging with the Scholarship of Teaching and Learning and producing high-level research. The strategies in place to increase faculty capacity to engage in reflective practices and pedagogical research include (i) partnership with expert graduate students (SoTL Specialists) who contribute from their knowledge of learning theories and methodologies; (ii) workshops and resources that facilitate

professional development; (iii) consultation from project inception to publication; (iv) collegial collaborations that encourage reflection and sharing of successes and challenges with teaching; and (v) synergistic support with other T&L innovation programs on campus, such as the TLEF.

UBC has expanded support across TLEF and SoTL Seed projects, to assist project teams with planning, development and evaluation of their projects and to provide institutional support for innovation in T&L. These programs align the enhancement of UBC's culture of innovation across projects by elevating faculty agency and accountability with teaching innovation and SoTL research. The programs rely on academic developers' expertise in educational research and evaluation, learning design, project management, facilitation of professional development and ability to interact with diverse audiences (i.e. faculty members, students, staff, senior leadership).

3.2 *Innovedum fund – ETH Zurich, Switzerland*

The Innovedum fund (<http://www.innovedum.ethz.ch>) at ETH Zurich has supported T&L projects for over 20 years. Over 270 projects at all levels of study have been supported thus far. An internal evaluation of the Innovedum program in 2016 showed that over two thirds of projects are still or at least partly in use and that overall project sustainability is good. Informal findings suggest that project sustainability is higher if stakeholders know each other and the existing project landscape. This is why community building became important early on in order to share experiences between all involved stakeholders. Academic developers today are offering and facilitating different event formats and online platforms to support this.

One of the most challenging aspects of community building activities has been how to engage faculty in transformative reflection about their own practice and on how teaching innovations can improve student learning. Inspired by the concept of the Scholarship of Teaching and Learning (SoTL) and the cultivation of quality culture (Mårtensson, Roxå, & Olsson, 2011), processes of project submission and dissemination have been adapted to further emphasize the importance of both evaluation of student learning and the involvement of students at the beginning of and during a project. As a result, academic developers have worked more intensively with faculty, preparing them for submissions, helping with evaluation concepts and supporting the dissemination of results.

More recently, external T&L impulses have been introduced to the ETH community. Selected international EdTech startups and interested faculty – with the help of educational developers – have started collaborations in order to trial new concepts of interest to both parties. The intention behind this is to specifically include external perspectives to enrich discussion of educational technology and student learning, and ultimately foster teaching innovation at the institution in general. Initial experiences show that both parties can benefit from such collaborations (Kickstart, 2019). The scaling of new concepts within the institution still remains a challenge and needs further exploration.

3.3 *Fund for Innovation and Research in Learning and Teaching (FIRLT) – Stellenbosch University, South Africa*

The Fund for Innovation and Research in Learning and Teaching (FIRLT, <http://www.sun.ac.za/english/learning-teaching/ctl/t-l-awards-and-grants/firlt>) at Stellenbosch University (SU) was introduced in 2005 to stimulate and sustain research and innovation in T&L at SU.

An evaluation done in 2018 has shown that the 430 projects funded over the last 15 years have contributed to improved teaching paradigms and practices at SU as well as increased student success. FIRLT affords faculty the opportunity to explore the Scholarship of T&L

(SoTL) and become reflective practitioners, partnered by SU academic developers. It therefore not only contributes to growing a multidisciplinary T&L research community at SU, but also fosters professional development and educational leadership.

Academic developers support faculty in formulating project proposals, networking with peers, and disseminating project results at the annual SU SoTL conference. FIRLT recipients are therefore enabled to contribute to the growth of SoTL at SU, and also in the broader academic community. Regular FIRLT writing retreats namely provide recipients with the opportunity to rework projects into publishable papers or national/international conference presentations. The low number of publications emanating from FIRLT projects poses a challenge to academic developers, however, as does sustaining the growth of the FIRLT community of practice. Overall, encouraging collaboration at SU in teaching innovation and research remains a challenge.

3.4 Teaching Fund (Lehrkredit) – University of Zurich, Switzerland

The Teaching Fund of the University of Zurich (<https://www.lehrkredit.uzh.ch>) aims to foster a variety of innovative teaching projects in both competitive and strategic funding lines. While the competitive Teaching Fund, in a yearly call for submissions, focuses on innovative didactic formats or teaching materials of a subject-specific nature, the strategic funding line enables the implementation of large-scale projects of university-wide relevance. With this two-pronged approach, the Teaching Fund supports innovation in T&L across multiple levels and seeks to foster an innovation culture not only through financial backing but also by raising esteem for teaching and community building among interested teachers.

Since its inception in 2016, an average of 15 competitive projects per annum and a further 6 strategic initiatives have been funded. Because great emphasis is set on the sustainability aspect, several projects have been able to continue after the funding period and have become established within the respective curricula. Early results from the Fund's first evaluation, which is currently in progress, show successful results reported for the individual projects and strengthen the notion that funding opportunities for didactic innovations – especially at research-intensive universities – foster a nurturing environment for innovation in T&L not only by providing financial means, but also through the element of prestige involved and by making it possible for a growing community to exchange ideas, often even across disciplines. Networking or discussion meetings for teachers, especially non-professorial staff, have proven to be one of the program's more popular features since opportunities to focus on (what is often seen as) experimental didactic formats are scarce.

3 Conclusions

The innovation-funding programs described in this paper serve as important engines of T&L innovation in our research-intensive universities. These programs support the work of teams of faculty, students and staff across diverse projects and create opportunities to foster a culture of scholarship in T&L activities.

Academic developers play an important role in supporting T&L innovation by providing extensive support to funded projects across multiple areas, including learning design, research & evaluation, project management, and project outcomes dissemination. However, academic developers face common challenges in supporting this work, such as growing the community of practice and reaching larger audiences; engaging faculty in evidence-based and transformative reflections around student learning; shifting institutional innovation cultures from a focus on product outputs to considering impacts on learning by nurturing a culture of evaluation and scholarly teaching; and limited capacity for long-term project support.

Institutions can learn from each other's successes and challenges. We hope this international collaboration will inspire others to communicate and exchange experiences.

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