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Research in Brief - Can They Teach Each Other? : The Restructuring of Higher Education and the Rise of Undergraduate Student “Teachers” in Ontario

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Cover Page Footnote
An earlier version of this paper was presented at the Geographies of Education Conference at Loughborough University in September 2012. The authors wish to thank those in attendance for their thoughtful feedback.

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Can They Teach Each Other?
The Restructuring of Higher Education and the Rise of Undergraduate Student “Teachers” in Ontario

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The last twenty years in Ontario have been witness to sweeping changes in how postsecondary curricula are formulated, funded, and delivered (Fisher et al., 2009). Beginning in the early 1990s, there were fundamental shifts in the management of postsecondary institutions as successive governments slashed operating grants and demanded universities adopt market policies to realize “efficiencies” (Fisher et al., 2009; Axelrod et al., 2011). In response to new government requirements, administrators began borrowing managerial practices from the private sector. The adoption of a cost accounting style of management was an essential piece of this shift. It provided a methodology and “economic rationale” for the reforms demanded by government and market advocates (Marginson & Considine, 2000). Since then, postsecondary institutions in Ontario have experienced successive rounds of budget cuts, program closures, and financial reforms. With fewer places left to cut funding and no new operating grants, the privatization of campus services, pension reforms, increases in student enrolment, larger class sizes, and the downloading of work onto lower paid employees have been some of the key ways administrators have found additional “savings” (Pitman, 2007).

Critical research into the neoliberal restructuring in education, particularly how it is impacting the work of student affairs in higher education, is urgently needed. These reforms are occurring where education, labour, and economic geographies intersect; and thus, an interdisciplinary approach drawing upon critical education, geography, and sociological literature is necessary. The reorganization of universities in Ontario in accordance with the finite mathematics of cost accounting management is part of the cultural, spatial, and economic reorganization of Canadian society under neoliberalism. This article makes an important contribution to this discussion by situating these reforms within the larger neoliberal project that has been underway since the 1970s. We begin this endeavor by briefly tracing the historical relationship between the provincial political economy and the formulation (and reformulation) of Ontario’s postsecondary education system in the latter twentieth century and early 2000s. Then, we present recent data on the impact of recent reforms. The remainder of the paper critically examines the emergence of Supplemental Instruction (SI) within the context of neoliberalism in Ontario, and examines the results of an SI pilot program at one mid-sized, research-intensive university in Ontario. We conclude this work by arguing that the use of unpaid or low-paid undergraduate workers as a substitute for faculty, teaching assistants, and teaching fellows is one manifestation of these neoliberal reforms. While previous research suggests SI programming can be beneficial; the explosion of SI programming must be viewed in the institutional context of the wider political economy of labour.

FROM “FIERCELY AUTONOMOUS” TO “COMMON SENSE”

The postsecondary system in Ontario has changed dramatically since its inception. At the end of the Second World War, there were six universities in Ontario, all private and “fiercely autonomous” (Monahan, 1998, p. 347). By 2013, the number of publically funded universities in Ontario had grown to 23. The rationale for university sector expansion during the post-war period was that increasing the number of university graduates was important to provincial and national social and economic development. Universities were to respond to growing demand for skilled graduates and federal, and provincial governments agreed to fund the cost (Monahan, 1998). An equally important objective was cultivating and preserving institutional autonomy and academic freedom (Newson, 1998). The struggle to maintain autonomy was manifest in institutional insistence at maintaining an arm’s length relationship between postsecondary institutions and government, and led to the institutionalization of collegial self-governance within Ontario universities (Newson, 1998).

As the Keynesian welfare state began to crumble in the 1970s, governments became wary of the rising cost of postsecondary education as inflation rose and Western economies experienced a series of economic shocks (Fisher et. al., 2009).
Falling government tax revenue, rising unemployment, and media accounts of campus “radicalism" aided in the deterioration of government and public support for funding postsecondary education (Monahan, 1998). By the late 1970s, the term “efficiency" had entered the lexicon of bureaucrats and university administrators, and universities experienced their first wave of reduced public funding (Monahan, 1998). Initially, reductions in funding were legitimated as short term, and institutions devised strategies to persevere and maintain institutional integrity until funding levels were restored (Newson, 1998). By the early 1990s, the economy plunged into another recession, and provincial and federal governments called on universities to “trim the fat” (Newson, 1998). Public discourses asserted universities were backward and insufficiently managed (Newson, 1998), thus justifying the need to impose financial discipline, and laying the foundation for later governance reform (Newson, 1998). The most dramatic cut to university sector funding in Ontario came in 1997 under Premier Mike Harris’s “Common Sense Revolution" (Monahan, 1998). The “Revolution" promised to reform government through a series of measures designed to cut government expenditures and reduce taxes (Jones, 2004; Young, 2002; Winfield, 2012). Under the revolution, public services and government were to be reformed through the application of “common sense" neoliberal principles of the market namely competition, to make government more efficient.

The reform of postsecondary education was guided by an ideological shift from public to user-based private funding (Jones, 2004). The 1996-1997 academic year, saw the provincial government cut operating grants to Ontario universities by 15%, while allowing tuition increases, particularly in professional programs (Jones, 2004). Moreover, greater competition was encouraged between universities at all levels.

By imposing efficiency and competition through policy and legislation, the Harris government effectively seized what little arm's-length autonomy remained between the provincial government and universities, giving the government greater control over curricula, institutional planning, and staffing. In neoclassical economics, efficiency is associated with the maximization of revenue at the lowest relative cost. In this orthodox interpretation, value is placed on efficiency, because efficiency helps firms survive in a competitive laissez-faire market.

Can They Teach Themselves?

These reforms have had a profound impact on students, staff, and faculty at universities across Ontario. Efficiency gains in undergraduate curricula delivery have culminated in increased faculty workloads, the downloading of work onto more vulnerable employees, and cheaper forms of education delivery. While increasing the workloads of teaching staff and a greater reliance on short-term contracts that have little (if any) job security or benefits, have been the mainstay of “efficiency" gains (OCUFA, 2012), the opportunity to exploit these efficiencies has been exhausted. With fewer places to download work and extract resources, there has been notable emphasis on the expansion of undergraduate student “teachers," under the guise of SI. The establishment of Supported Learning Group (SLG) programs, a form of Supplemental Instruction, at universities across Canada has been fuelled by findings suggesting that students who participate in SLGs experience greater academic success than students who do not participate (McInnis, 2001; Tinto, 2002; Yorke & Thomas, 2003; Peat, Dalzeil, & Grant, 2001). SLG sessions typically use upper-year undergraduate students, who had previously achieved a grade of 80% or higher in the course, to lead course-specific study sessions in typically large introductory classes where the rate of failure and D grades are high (Blanc...
Efficiency gains in undergraduate curricula delivery have culminated in increased faculty workloads, the downloading of work onto more vulnerable employees, and cheaper forms of education delivery.

et al., 1983). These programs, often run by the division of student affairs, have great benefits to students when they are offered as supplementary.

Si and the Institutional Political Economy of Labour Under Neoliberalism

Since their introduction, the number of SI programs on campuses across North America and beyond has grown substantially. It is estimated that over 500 colleges and universities in the United States, as well as, growing number of postsecondary institutions in Canada, the United Kingdom, Australia, and elsewhere, have adopted SI programs (Blanc & Martin, 1994). In Ontario, SI is now commonplace at most universities.

The recent impetus for the expansion of SI programs across and within institutions has diverged from its original intent. It has crept from its original role as supplemental to faculty-led classes, and increasingly functions as a replacement of faculty-led teaching. As budgets are squeezed and first-year class sizes increase, SI has become an important component of the delivery of undergraduate education. The advancement of SI has been supported and advanced by non-critical assessment and evaluation (see for example, Duah, Cost, & Inglis, 2014; Rath, et al., 2012; Malm, Bryngfors, & Morner, 2012). SI is consistently promoted as a low-cost “solution” to educating increasing numbers of undergraduate students, due to its dependence on lower paid (or unpaid) undergraduate student SI leaders (Kochenour et al., 1997; Malm, 2012).

The allure of SI’s purported cost-effectiveness for postsecondary institutions is obvious amid successive waves of funding cutbacks that have occurred over the past 30+ years.

Systemic underfunding and increased economic scrutiny (i.e. regulatory coercion) by federal and provincial authorities have left Ontario universities with little choice but to cut funding for basic institutional and academic resources, such as maintenance and teaching staff, for several consecutive years (Monahan, 1998; Newson, 1998; Slaugher & Leslie, 1999; Jones, 2004; Young, 2002). At some universities, entire departments have been abolished due to fiscal constraints (Porter, 2009; MacLean’s, 2009). These cutbacks have encouraged the establishment and implementation of SI programs in Ontario.

CASE STUDY: A CRITICAL ASSESSMENT OF SUPPLEMENTAL INSTRUCTION

Research Site

In this study, we sought to address some of these issues and engage in a critical assessment of one type of SI—SLGs at Queen’s University. Queen’s University is a research-intensive mid-sized postsecondary institution located half-way between Toronto and Montréal in Kingston, Ontario. Established in 1841, Queen’s is one of the oldest postsecondary institutions in Canada, and offers a wide range of professional, undergraduate, and graduate programs in the areas of engineering, science, the arts, the social sciences, medicine, business, law, and education.

Methodology

Over the past seven years, the Division of Student Affairs at Queen’s has expanded its range of supplemental academic support services, including the expansion of online resources, resources offered through the Learning Commons, and the introduction of SLGs. Queen’s University initially piloted its SLG program during the 2008-09 academic year in Biology 102 and Biology 103. The pilot was subsequently extended to include Psychology 100 in 2009-10. In this study, we examined the grades and completion rates of students registered in Biology 102 and Biology 103 and Psychology 100 in 2009-10 and compared those who participated in SLGs and those who did not. Table 1 describes the participants. The evaluation of the pilot project was guided by five key research questions (Massey et al., 2012, p. 10):

1. What factors influence students’ likelihood of participating in SLG sessions?
2. To what extent does student participation in SLGs lead to increased academic success in a course?
3. To what extent does student participation in the SLGs increase course material retention?
4. To what extent does student participation in the SLGs increase engagement with the course material?

5. To what extent does student participation in the SLG sessions enhance study skills?

SLGs are student-led study groups where students meet to study and practice skills and concepts introduced in class to promote greater understanding and retention. SLGs are based on SI model of instruction developed at the University of Missouri-Kansas City, beginning in 1973 (Fayowski & MacMillan, 2008; Ramirez, 1997). SLG sessions at Queen’s were held in student residences. Research has shown that students living in residence have greater critical thinking skills than first-year students living off-campus (Kuh, et al., 1994; Pascarella, Bahr, Nora, Zusman, Inman, & Desler, 1993) and it has been found to be an ideal environment for developing and conducting small group work (Tinto, 2002; Yorke & Thomas, 2003).

Data Analysis

Data were analyzed using Stata and SPSS. Linear regression was used to estimate the impact of covariates on SLG participation. Regression models utilized propensity score matched (PSM) treatment and control group members to attempt to isolate the impact that participation in SLG sessions had on a student’s final grades, study skill development, and academic engagement. In postsecondary education research involving program and course-based interventions, PSM is used to identify the impact of participation while controlling for factors that influence self-selection into these same programs (Conway, 2010; Padgett, Salisbury, An, & Pascarella, 2010).

Covariates for these analyses were chosen based on available institutional data. The more covariates used in a regression model (or incorporated into PSM) the greater the potential to isolate and measure treatment effects. Researchers try to control for a range of demographic and other characteristics in the regression and PSM analyses, while recognizing that these variables are surrogates for more complex attitudinal and behavior factors.

In the testing phase of the analyses, some initial covariates were dropped due to a lack of observations and collinearity with other covariates. The covariates used in the regression analyses include gender, entrance grade average, full-time/part-time student status, year of study, identifying as an international student, and SLG attendance both in the targeted course and in other courses also offering SLGs (i.e., attending, or having attended, SLG sessions in Psychology 100 or Biology 102 at Queen’s University). Table 2 reports the results of these linear regression analyses. The Psychology 100 and Biology 102 models were found to have r² statistics of 0.302 and 0.356, suggesting these models accounted for approximately one-third of the variance in SLG participation. The Biology 103 model, by contrast, had an r² statistic of 0.059. These statistics indicate that controlling for these variables in the PSM analysis would significantly, although not entirely, account for the self-selection bias when comparing participants and nonparticipants.

Variance inflation factor (VIF) scores were generated for all covariates included in the models in order to detect and estimate the influence of multicollinearity, which can skew the model results (see, for example, Greene, 2008; Tabachnick & Fidell, 2007). While several acceptable VIF limits have been proposed by previous authors (see, for example, O’Brien, 2007), a limit of four was adopted for the purposes of this report. This suggests that at the limit, the standard error associated with a particular covariate would be double what it would otherwise be if it were completely orthogonal (Greene, 2008; O’Brien, 2007; Tabachnick & Fidell, 2007). No VIF scores were found to exceed 2.01, and most were below 1.33, meaning the standard errors for these covariates were higher than they would have been if the covariates were completely orthogonal, but well within conservative VIF limits.

RESULTS AND DISCUSSION

Our findings on the pilot-SLG program at Queen’s University, Ontario challenge the efficacy of SI. Using quantitative data compiled from student surveys, student records, and SLG attendance files collected during the 2009-2010 academic year, we found the impact of SI on grades and retention mixed. Comparing SLG attendance frequency with students’ average university entrance grades and their average final grades, we found that no specific observable patterns emerge, see Table 3. Table 4 describes course completion rates. When we compared the proportion of participants and nonparticipants who earned grades below 50% (an F grade), we found few differences between the
comparison groups. Table 5 summarizes the results of the PSM analyses comparing the final grades of SLG participations and non-SLG participants. The PSM results summarized in Table 5 indicate that the impact of SLG attendance and students final grades at Queen's is mixed. Although SI programs can be an important addition to traditional academic resources, the expectation that SI can be applied with uniform results is unrealistic, and may be partially attributed to meta-analytical approaches that conceal institutional differences, as well as early empirical work that lacked attention to problems associated with self-selection bias.

Conclusion:
Labour Geographies of Higher Education

While postsecondary institutions have received much attention from critical scholars, relatively little work has focused on how these institutions are changing and the resultant consequences for faculty, staff, and students (Waters, 2006). The restructuring of education requires urgent attention from critical scholarship, which has played a key role in dissecting processes, ideas, and discourses related to globalization, neoliberalism, regional economic development, governance, and social change. Yet, this rich body of work has remained relatively silent on critically dissecting how these processes, ideas, and discourses have impacted the institutions where we work and the resultant impact on those around us–especially those workers who are most vulnerable. The shifts in the role of SI from “supplemental” towards “instructional” in approach is one facet of the broader shifts emerging in the restructuring of universities in North America. The lack of critical research questioning the win-win philosophy underpinning this approach is leading to radical changes to how undergraduate education is thought about and delivered.

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