

Commentary

Interrogating Our Views on the Impact of Education-Related Scholarship

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ABSTRACT

From junior faculty members to seasoned full professors, pharmacy educators have likely all felt pressure to focus on peer-reviewed publication. Although publication is an important part of an academician's work, have we missed something critical by not focusing greater attention on a more inclusive conceptualization of education-related scholarship's impact? How can we describe the full impact of our education-related scholarship beyond traditional metrics (ie, publications, presentations, and grant funding) if the issue is not critically examined? With the growing expectations for scholarly teaching and interest in the Scholarship of Teaching and Learning in academic pharmacy in both the United States and Canada, this commentary examines and questions the current, often narrow, views on pharmacy educators' scholarly impact. In addition, it provides a new definition of education-related impact to encourage a more expansive view.

1. Introduction

Imagine that you are working with colleagues on an exciting, new scholarly teaching project designed to improve classroom involvement and academic engagement. Every time you work on it, you are energized and inspired by its possibilities. Your department head ends your most recent meeting with, "that is great, just make sure this culminates in a publication or you may not want to spend too much time on it." While you acknowledge the importance of publications, you leave feeling deflated, knowing that this project's implications involve so much more than bringing a paper to print. From mentoring opportunities and faculty development programming to improvements in local, or even national, teaching practices, the full impact of this work could go unrecognized if the sole measure of impact were a publication.

Scenarios like this raise serious questions about the valuing of our educational efforts and scholarship. In particular, "Why are publications still so highly prized when they represent only one aspect of our scholarly work?" and "Why is a focus on impact so important?" and "Why now?" Although the answers to these questions are complex, the importance of showcasing the full scope of educational activities has been articulated.¹ Authors in academic pharmacy have advocated for a specific framework (ie, The Experiential Learning Management Tool) to assist in thinking systematically about the full breadth of education contributions.² In addition, we believe there are shortcomings in publication metrics as

measures of the impact of education-related scholarship.³ As pharmacy educators and scholars, we argue that currently, academic pharmacy seems constrained by traditional productivity and impact metrics established for basic sciences research, constraints that are unrealistic given the vastly different infrastructure supports available for the respective research areas (eg, funding opportunities, variety and impact factor of journals available for publication, and publication rates that do not support high citation metrics).

Recently Medina and Draugalis⁴ have challenged the Academy to find alternatives to these traditional metrics of impact. Taking up their call for more dialogue, the aim of this commentary is to (1) argue the case for a broader conceptualization of the impact of scholarly teaching and education-related scholarship, (2) expand the conversation about what should be measured and reported, and (3) propose a definition of impact for education-related scholarship.

2. Discussion

2.1. The Case for Impact

With the growing interest in education-related scholarship, the case for carefully examining impact is both timely and urgent. Franks and Payakachat⁵ have documented a 350% growth in Scholarship of Teaching and Learning (SOTL) publications in academic pharmacy

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Table 1
Definitions of ST and SOTL.

Definitions	
ST	ST <u>promotes student engagement and learning</u> using the educational literature and systematically assesses learning outcomes ¹⁸ . ST involves: observing a teaching-learning problem or opportunity, consulting literature, selecting and applying an educational intervention, conducting systematic observation, documenting observations, analyzing results and obtaining peer evaluation ¹⁹ . <u>The purpose of ST is to affect the activity of teaching and the resulting learning</u> ²⁰ .
SOTL	The SOTL <u>builds on the end product of ST</u> . It involves <u>identifying key issues</u> from the ST, analyzing results, and <u>putting them into the context of the existing knowledge base</u> . Once a venue for dissemination is chosen (ie, presentation and/or publication), peer review is conducted on the manuscript or proposal ¹⁹ . Therefore, SOTL results in formal, <u>peer-reviewed products</u> , which then become public and part of the knowledge base of teaching and learning ²⁰ . In short, SOTL communicates the goals, preparation, methods, results, presentation and reflection of teaching in the literature ¹⁸ .

Abbreviations: SOTL, Scholarship of Teaching and Learning; ST, Scholarly Teaching.

since 2011 and Snider and colleagues⁶ 2021 analysis of promotion and tenure documents from 121 United States (US) pharmacy schools indicated that 41% now include SOTL in promotion, tenure, and career advancement decisions. Also within academic pharmacy, Islam and colleagues⁷ study of 139 US colleges/schools of pharmacy, reported that 98.1% of faculty had a clear understanding of what constitutes the SOTL while 74% were actively engaged in SOTL activities. Although similar data has not been published in Canada, SOTL has been recognized as 1 of 4 strategic priorities for academic pharmacy through 2025.⁸ Scholarly Teaching (ST) and the SOTL have been delineated and definitions in health professions education have emerged and stabilized (Table 1). In addition, an expectation for ST has been articulated.⁹ Along with the expectation for ST, SOTL is becoming increasingly prevalent, visible, and valued, and should be evaluated on its own terms.

With SOTL's growth in academic pharmacy, it is easy to see why pharmacy educators and scholars would be interested in measuring the full impact of their education-related scholarship and moving beyond the narrow conceptualization of impact as publication. Increased attention to impact could enhance the legitimacy and capacity for SOTL within the Academy and help with career advancement decisions for those whose primary focus is teaching. Drawing on the thoughts of Meadow and Owen¹⁰ in environmental sustainability and Antonopoulos¹¹ in management research, we propose that academic pharmacy is entering a phase of unlearning; that is, re-examining its ways of thinking about education-related contributions and scholarship, and boldly confronting tensions about what should be valued.

2.2. Broadening Our Views on Impact

Fundamentally, impact is about change. It involves an action (ie, ST contribution) and a response (ie, effect resulting from that contribution). The potential effects are diverse. Fig. 1 outlines a number of different expressions of scholarly impact in education (eg, a seminar for colleagues on ST activity) and possible downstream results (eg, broader local uptake, stimulating policy review and change). Impact may occur at a range of levels, including personal (ie, Fig. 1, Example 1), team and institutional and/or national levels (ie, Fig. 1, Example 3). Describing SOTL's impact requires distilling its complexity down to 2 questions: What scholarly contribution was made? What effects occurred?

Impact can often be difficult to discern without explicit attention to identifying and describing it. Examining and documenting the effects is essential to articulating the difference the scholarship has made. The effect of the contribution may be positive, negative, or neutral. The effect may be immediate and easily recognized (eg, paper published, seminar, conference presentation), or it may take time and diffuse within an organization gradually. The effect can also translate beyond local contexts. The differences made affect the researcher, participants, and institutions (within and beyond) as communities are formed, skills are built, and members feel a sense of belonging. Ideally, capacity for subsequent uptake, inquiry, and reach grows.

Verwoerd and Poole¹² describe how the tangible impacts of scholarly work are both influenced by institutional strategy and can

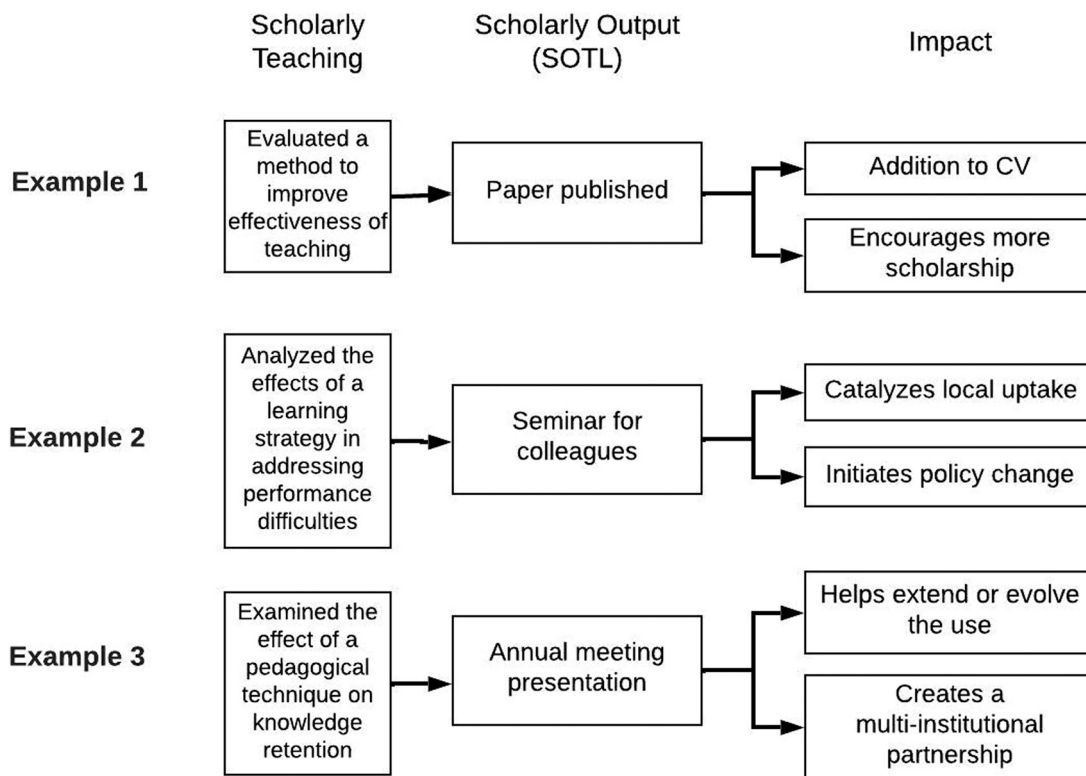
influence the institution (macro-level). Additionally, a scholar's impacts can be exerted on individual faculty, students, and practitioners at the micro-level and on departments, deans, and colleges at the meso-level. A scholar's spheres of influence can work to both support and stifle impact, generally expanding as a scholar's career develops. To develop a greater conceptual understanding of impact, pharmacy educators can take guidance from William's¹³ perspectives on research evaluation. We must establish what counts, in terms of significant, enduring contributions to the advancement of pharmacy education, rather than counting what is easily measured as proxies for impact (eg, bibliometrics).

2.3. Defining Scholarly Impact in Education

To date, precise definitions of education-related impact remain elusive. Although used extensively in the scholarly literature across multiple disciplines, the Academy lacks specific definitions, theoretical constructs, or conceptual frameworks to help explain what makes educational activities and scholarship impactful.¹⁴ Instead, common usage revolves around dictionary definitions where impact refers to the effect that one thing, person, or action has on another.

Typically, research impact is described more for what it does (ie, the effect), rather than what it is. The discussion is confounded by a lack of agreement on the specific dimensions of research impact. Alla and colleagues¹⁴ attempted to answer, "How does research impact policy?" by reviewing the literature. They identified 108 different definitions of research impact in 83 articles, mostly from research organizations and funding agencies. Interestingly, only 23% of academic publications on research impact explicitly defined the term.¹⁴ More importantly, their analysis revealed key dimensions of impact, including its focus (eg, the economy, society, environment, health, among others), outputs (the products of research), the effect on or change to the area of focus (either positive or negative), and the sphere of influence (local, national, international, within and beyond the institution). Building on the work of Alla and colleagues¹⁴, Belcher and Halliwell's¹⁵ examination of research impact in international development avoids defining impact due to its inherent complexity. Instead, they use research impact as an overarching term denoting "any change caused in whole or in part by research actions" and characterized by the results of the research outputs (ie, products and services produced directly from the research), outcomes (ie, changes in knowledge, skills, relationships, behaviors and agency of others that use the research outputs), and realized benefits (ie, tangible system-level changes to which the research has directly or indirectly contributed).¹⁵

In the medical education context, Friesen and colleagues define impact as "the effect or influence of research, within and beyond academia".⁹ They evaluated 7 health-related research assessment frameworks (non-education) for indicators of research impact, ultimately adding gray metrics to conventional bibliometric and altimetric measures of impact, as indicators more illustrative of the actual influence of education-related scholarship on educational practices and thinking.¹⁶ Non-indexed gray metrics, such as poster and oral presentations, as well as dissemination through informal sharing of research findings,



SOTL=Scholarship of Teaching and Learning

Fig. 1. Impact diagrams illustrating scholarly contributions and possible effects. Sotl, scholarship of teaching and learning.

consultations, mentoring, and personal communications, underscore the importance of Verwood and Poole's¹² small significant networks in effecting educational change. Although gray metrics certainly have relevance in pharmacy education, gathering and reporting this evidence remains largely a practical counting exercise. As mentioned earlier, what is missing is definitional clarity.

Combining the collective insights described above with our own perspectives and experiences, we propose the following pharmacy-specific working definition for scholarly impact:

In education, scholarship's impact is its effect on people (eg, students, teachers, administrators, scholarly networks), processes (eg, approaches, decisions, and priorities), and/or products (eg, courses, curricula, body of literature) within and beyond a particular school or institution.

This definition emphasizes the downstream effect of an ST activity that has been peer-reviewed and disseminated. Inherent in the definition is the desire to make scholarly contributions more visible and valued by broadening our views beyond traditional scholarly outputs (ie, publications and presentations). The definition draws on the Teaching and Learning Impact Framework developed at the University of British Columbia.¹⁷ Impact on "people" includes impact on the teaching practices of individuals and disciplinary colleagues, as well as impact on student success (eg, student learning, engagement, wellbeing, achievement of program outcomes). Impact on "processes" involves impact on priorities and approaches for the program or department, as well as impact on support provision and capacity (eg, workshops, mentorship programs, communities of practice). Impact of products includes impact on curriculum (eg, courses, degree options, community partnerships, policy statements) and impact on the scholarly literature or body of work in pharmacy education. Using this definition, the impact of education-related scholarship is much more than publication and should be considered in promotion. In addition, the department head's response in the opening scenario would have been more inclusive, recognizing the impact on people (eg, mentorship

opportunities) and processes (eg, new faculty development), and not just focusing on the product (ie, publication). Perhaps the department head in the opening scenario could even shift the conversation to help the faculty member examine how their work could incrementally increase impact by exploring how their work *impacts people, change processes, and creates innovative products*. The proposed working definition provides the Academy, institutions, and researchers a place to start in examining current metrics and considering a broadened view of impact.

3. Conclusion

This commentary seeks to examine and interrogate our current views on the impact of education-related scholarship. We argue that scholars and institutions need to give more attention to impact. Education-related scholarship is becoming increasingly prevalent and should be evaluated on its own terms. To evolve the approach to impact, we must re-examine our ways of thinking about education-related contributions and scholarship, and boldly confront existing tensions about what should be valued. We must establish what counts, in terms of significant, enduring contributions to the advancement of teaching and learning in pharmacy, rather than counting only what is easily measured.

We propose that it is time to challenge old ways of describing impact by promoting the use of a more inclusive definition that recognizes scholarship's impact on people, processes, and products both within and beyond a particular school or institution. We acknowledge that embracing a broader definition of impact will require the Academy and institutions to unlearn and expand current (more narrow) conceptualizations. Although we acknowledge the benefits of academic writing and publication on the personal and professional growth of pharmacy education scholars, publication alone is not adequate in appreciating the full scope of educational contributions. By redefining the impact of scholarship, we can better acknowledge scholarship's significant, enduring advancements in education.

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Declaration of Competing Interests

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