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# Participant Perceptions of the Faculty Development Educational Research Series

## ABSTRACT

Interest in the Scholarship of Teaching and Learning (SoTL) is driven in part by the need to provide systematic academic development for faculty anchored in evidence-based practice such as the introduction of quality assurance frameworks. This article reports on a mixed-method evaluation of one institution's grassroots multidisciplinary faculty development program, called the Educational Research Series, to determine if it met the needs of its faculty, graduate student, and staff participants. Conducted at one mid-sized university in southern Ontario and framed, as was the program design and implementation, by both adult learning theory and constructivism, the evaluation collected data from session exit surveys, attendee interviews, and facilitator focus groups. The data analysis revealed that reasons for participating included increasing levels of understanding, receiving individual support, and learning about colleagues' research interests. The major strengths of the program included individual learning, resources, facilitator expertise, interactive sessions, and the multidisciplinary focus. The main challenges centered on depth versus breadth of the sessions, time, and educational language and theory. Participants recommended additional resources, communication among facilitators, institutional recognition, and increased depth of content. As a result of this evaluation, an Advanced Educational Research Series is being offered at the institution. This article will inform other institutions wishing to build SoTL as a field within their institutions.

## KEYWORDS

educational research, educational scholarship, higher education, scholarship of teaching and learning, research approaches

## INTRODUCTION

The introduction of Ontario's provincial quality-assurance framework (Ontario Universities Council on Quality Assurance, 2016) has triggered institutional reflection on programmatic teaching and learning issues (Openo et al., 2017). The framework and the teaching and learning movement more generally have motivated the study of teaching and learning practices over the last two decades and revealed the need for self-directed faculty development anchored in evidence-based practice

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(Geertsema, 2016; Kreber & Cranton, 2000; Trigwell & Prosser, 1996). Introduced as a field in the 1990s, interest in and use of the scholarship of teaching and learning has gained traction in universities around the world (Boyer, 1990; Huber & Morreale, 2002; Hutchings, Bjork, & Babb, 2002). Although definitions vary, the field of SoTL is broadly associated with the following themes: scholarly teaching drawing on the research literature; becoming a classroom researcher of teaching and learning; and translating the results of scholarship to enhance the teaching and learning practice of others (Fanghanel, Pritchard, Potter, & Wisker, 2016). The field of SoTL promotes a form of educational research that follows the stages of an action research process (Sagor, 2000) with a focus on academic development for improving teaching practice and making findings public within a peer review process (Geertsema, 2016). At the heart of the work of this field, the goal of SoTL is to enhance student learning, and this enthusiasm has crossed disciplinary boundaries as evidenced by numerous professional journals and faculty programming dedicated to teaching scholarship (Auten & Twigg, 2015). Our university is attempting to build capacity in educational research as a means to evaluate teaching in order to improve student learning.

The field of SoTL seeks to enhance student learning in part by improving the design of curriculum and assessment mechanisms (Wuetherick & Yu, 2016). It is also valued as a means for self-reflective teaching and recognized as a legitimate form of scholarship across disciplines (Riddell, 2016). Although interest in the field of SoTL is increasing, some faculty have reported challenges navigating this unfamiliar form of scholarship. While developing a new set of research skills is one barrier (Hubball, Clarke, & Poole, 2010; Huber, 2006), other authors (a scientist and an engineer) describe their difficulties not only in thinking qualitatively but also in making the time to become enculturated in the field's language and methods and adopting a new self-identity and worldview as researchers (Kelly, Nesbit, & Oliver, 2012).

These challenges have led institutions to explore various approaches to building an internal culture that supports scholarship of teaching and learning with this focus. Healey, Jenkins, and Lea, 2014 offer a list of general strategies to support pedagogic research, including integration into institutional strategy, resource provision, and development of learning communities. Hamilton (2014) outlines the need for a "program" that involves leveraging leadership, policy, planning, and organizational structure to develop a cohesive and context-specific pathway to SoTL. In a review of institutional supports for scholarship on teaching and learning, Myatt, Gannaway, Chia, Fraser, & McDonald (2018) describe initiatives from full courses to social networks but note that there has been little study on how to build capacity for engaging in scholarship focused on teaching and learning across an institution. Hubball, Clarke, and Poole (2010) examined how a certificate program produced leaders who could return to their home university and help establish a community of practice to offset many of the challenges in building capacity. Marquis (2015) describes the advent of scholarship institutes that operate apart from individual departments and serve as a leadership and support hub for educational research across a campus.

Peer mentorship has been proven to have an impact on educational research. Chitpin (2011) and Pleschová and McAlpine (2015) discuss the overall importance of peer mentoring as a means of sustaining the learning that results from professional development in educational research. Chitpin (2011); Marquis, Healey, and Vin (2014); and Pleschová and McAlpine (2015) note that by promoting informal mentorship and community building, writing groups are effectual in building capacity for engaging in scholarship focused on teaching and learning and scholastic identity. Weaver, Robbie,

Kokonis, and Miceli (2013) show in their retrospective study of collaborative workshops that community building sustained changes to teaching, promoted idea openness, and enhanced scholastic contributions. Lawrence, Lambeth, and Archuleta (2016) similarly give credit to the formation of a community of practice for the effectiveness of their workshop series.

In presenting the findings from our evaluation of a grassroots faculty development program focused on the scholarship of teaching and learning, our purpose is to build on the work of others on developing capacity for scholarship focused on teaching and learning.

In our evaluation of the program, called the Educational Research Series, we were guided by three research questions:

1. ***How does the Educational Research Series meet the needs of participants?***
2. ***What are the successful learning characteristics of the Educational Research Series?***
3. ***What are the recommendations for future iterations of the Educational Research Series?***

As described below, four main lessons emerged from our findings: the need for (1) additional resources, (2) facilitator communication prior to the sessions, (3) institutional recognition for participation, and (4) increased depth of content.

Locally, these findings will be integrated into planning future workshops to improve the program. However, the lessons learned from this study are more broadly pertinent to educational developers who are investigating how to advance a culture of educational research in postsecondary education.

## THE CONTEXT

With the goal of developing interest and expertise in scholarship on teaching and learning, a mid-sized university in Ontario forged a partnership across units engaged in faculty development to plan a yearlong program focused on scholarship on teaching and learning. Named the Educational Research Series, it was intended to introduce faculty, graduate students, and staff to the investigation of teaching and learning practices.

The Educational Research Series was a grassroots initiative led by members of an office of professional development and educational scholarship, and a center for teaching and learning. It was not proposed by the university administration, and there has been no communication about the program with senior administrators since its inception. Participants receive no formal certificate or recognition for attending the sessions.

This is a relatively new approach in our context. As an institution-wide initiative, the Educational Research Series is a collaborative effort to move toward a more scholarly and evidence-based approach to learning. The approach to providing a rich learning environment focused on creating collaborative and relevant sessions on topics that were valuable and led by experts who embraced learner-centered learning.

The program was developed as a response to a recognized need to provide training in research on teaching and learning to faculty and graduate students. The planning committee membership represented a collaboration between Faculty Development, the Office of Health Sciences Education, the Centre for Teaching and Learning, the Office of the Vice-Principal (research), and the Office of the Vice-Provost (academic), and included faculty, staff, and one graduate student.

### **Designing the program**

As described below, in order to bring cohesion and consistency to the teaching and learning approach used across the Educational Research Series, a constructivist framework was applied to the design of learner activities to enable individuals to process information and derive their own meaning from it.

#### *Conceptual framework*

To assist in developing educational research skills, sessions were framed by constructivist education (Jonassen, 1994, 1999; Ruey, 2010; Säljö, 2011; Sjöberg, 2010) and adult learning theory (Knowles, 1979; Knowles, Holton III, & Swanson, 2015; Mezirow, 1991). Constructivist learning theories focused on participant interaction and problem solving, while adult education theory helped to tailor the experience within a respectful learning environment that acknowledged their personal needs. Knowles, Holton III, and Swanson (2015, pp. 18-51) offer nine guiding principles for effective adult education.

Adults need to

1. Control their learning.
2. Feel that their learning has immediate utility.
3. Feel that learning focuses on issues that directly affect them.
4. Test their learning as they go, rather than receive background theory and general information.
5. Anticipate how they will use their learning.
6. Expect performance improvement to result from learning.
7. Maximize available resources.
8. Learn in a climate that is collaborative, respectful, mutual, and informal.
9. Rely on information that is appropriate to what is known at a given time.

Constructivism emphasizes the active role that learners play in making sense of information by drawing on their prior knowledge and experiences (Narayan, Rodriguez, Araujo, Shaqlaih, & Moss, 2013). Sense making and interpretation are triggered by individuals and during social contexts such as discussions, interactions, or group work in a classroom. Both these educational frameworks informed the program's design, development, and implementation.

Constructive approaches are well suited to workshops focused on scholarship on teaching and learning where the unfamiliar language of educational research is introduced. Although many of the program participants are advanced researchers in their own disciplines, we may forget that education terminology and theory is relatively new to them. Participant comments capture this in reference to being new to the field without a grounding in the landscape of learning theory. The planning committee struggled with naming the program. Ultimately, the phrase "educational research" was preferred over "scholarship of teaching and learning" as it was considered to be more accessible and less threatening to colleagues outside the field. This approach may be contrary to researchers trying to define SoTL as a research discipline in its own right. However, the committee decided that, at that point in time, the term precipitated a sense of exclusion rather than an invitation to study and share common practices.

### The program

The Educational Research Series was composed of eight half-day sessions (Table 1) (van Wylick, Dalgarno, Garton, Lavery, & Egan, 2017). Each session was designed to include time for participants to reflect on their research interests, and together the eight sessions provide a guided process that supports completion of a full research proposal and grant application. The program focused on the introductory principles of educational research and targeted a multidisciplinary and institution-wide audience. Session resources (presentation material, handouts, and articles) were shared in an online course framework, enabling attendees to access the learning materials even if they missed one of the sessions.

Each three-hour workshop involved significant group work to trigger divergent views, spontaneous questioning, proactive interpretation, clarifying concepts, and explaining ideas from different perspectives. Attendees represented many disciplines and the organizing group hoped that interactions among individuals from a range of fields of specialization would be empowering during educational research exchanges. Activities were also scaffolded across each learning block, beginning with general concepts or experiences that were then modeled, applied, and discussed.

Sessions combined didactic, interactive, hands-on, multidisciplinary, and small-group learning strategies. Diverse approaches were used in each workshop to engage participants. For example, individual work included

- sketching a mind map of individual research questions and approaches followed by a gallery walk inviting written collegial commentary on each map.
- testing search strategies as part of the literature review process
- completing components of a logic model template to better understand program evaluation
- organizing the stages of a research project using an action plan
- evaluating potential journals for publication

Group work included

- describing research topics and transforming them into researchable questions
- critiquing sample surveys and interview questions
- developing interview questions
- creating a rich description to describe a research artifact
- selecting a research approach for multiple case studies
- coding interview transcripts

The planning committee selected seven developmental and generalizable topics with the goal of supporting participants' self-directed study. The focus of the eighth and final session was determined using a participant poll (Table 1). The sessions were collectively advertised as a *series* because each provided a building block to enable expertise in completing an educational research project. Each session was run by two facilitators from different disciplines with experience in educational research and teaching about the topic (such as qualitative research).

**Table 1. The session topics**

SESSION	TITLE
Session 1	Approaches to educational research
Session 2	Planning your literature review and ethical considerations
Session 3	Qualitative methods and analysis in educational research
Session 4	Quantitative methods and analysis in educational research
Session 5	Taking a mixed methods approach to educational research
Session 6	Approaches to program evaluation
Session 7	Writing and presenting in educational research
Session 8	Grant writing ( <i>selected by participants</i> )

## METHOD

As part of the program design, we evaluated the program. Results from our evaluation will be used to engage in continuous quality improvement to enhance future sessions. This outcome-based evaluation used a convergent mixed-method approach (Mertens, Bledsoe, Sullivan, & Wilson, 2010; Onwuegbuzie & Johnson, 2006). Surveys, interviews, and focus groups were conducted and analyzed using qualitative and quantitative methods. A pilot of the first two sessions was run four months in advance of the Educational Research Series to inform and refine the content of the sessions and trial the evaluation of the program prior to the official launch in September 2016.

### Setting and participants

Our study was situated at a medium-sized educational institution in Southern Ontario. The 64 unique participants included 13 facilitators and 51 faculty, staff, and graduate students from across 10 faculties and offices. The Faculty of Health Sciences represented the majority of participants (66 percent). The faculties of Arts and Sciences and Engineering and Applied Sciences were represented by 17 percent of participants, and the faculties of Education, Law, Physics, Psychology, and Geography represented 16 percent. University offices and library staff represented approximately 1 percent of participants. The number of participants per session ranged from nine to 21. Eighty percent of participants attended either one or two of the sessions, 14 percent attended three or four sessions, and 6 percent attended five or six sessions. No participants attended seven or all eight of the sessions.

### Data collection

We adopted the indicators from Chalmers and Gardiner's academic professional development effectiveness framework (2015) to determine the effectiveness of the program. Our analysis included indicators of program inputs, outcomes, processes, and outputs. Program inputs are documented in terms of the human (facilitators and organizers), physical, and financial resources dedicated to the program. The stated outcomes for each session guided workshop delivery, and measures of achievement of those outcomes were gathered through participant survey data for each session. We documented process indicators, referring to criteria that enabled the operationalization of the program, to evaluate the success of its organization, curriculum design, learning materials, session evaluation, and facilitator communication and delivery.

Using convenience sampling, participants were invited to complete a short exit survey following each session they attended. Sessions were offered over an eight-month period between September and

April. The surveys were provided in both online and paper format and included demographic, Likert-type, fixed, and open-ended questions. The surveys included 12 questions that identify participants' achievement of learning outcomes, demographics, strengths and weaknesses of the sessions, and suggestions for improvement. (Appendix A provides the session 1 exit survey.) All survey questions were identical except for question three which was specific to the learning outcomes for each session. The data from the pilots of the first two exit surveys were analyzed by three members of the research team to ensure face validity. They measured our desired criterion—intended and unintended outcomes, strengths, challenges, recommendations, and future actions. A total of 92 exit surveys were collected from 51 unique participants. Thirty-two individuals completed one survey, nine individuals completed two surveys, four completed three surveys, two completed four surveys, two completed five surveys, and two completed six surveys. The average response rate for the exit surveys was 76 percent (55 percent to 93 percent).

Session participants were further invited to participate in an interview ( $n = 9$ ). Three focus groups were conducted with 10 of the 13 session facilitators ( $n = 2, n = 3, n = 5$ ). The interviews and focus groups were conducted following the conclusion of the program. The research team developed the interview and focus group protocols, and then tested it with two members of the research team to ensure the questions obtained the data we wished to collect. (Appendix B contains the interview questions and Appendix C the focus group questions.) All interviews and focus groups were audio-recorded and transcribed verbatim.

Ethics approval was obtained from the Health Sciences and Affiliated Hospitals Research Ethics Board (File number 6018365).

### **Data analysis**

With descriptive statistics using IBM SPSS v 24 we analyzed the quantitative data from the exit surveys. Open coding, in Atlas-ti 8, assisted in analyzing the open-ended exit survey questions, interviews, and focus groups. To ensure interrater reliability, three researchers individually coded one interview and one focus group. Codes were then compared and refined until shared meaning and consensus was reached. Two researchers then coded the remaining transcripts. Responses from both participant interviews, and facilitator focus groups, were coded together. The open-ended survey questions were then coded using the same code book. All data were triangulated. The qualitative analysis generated 147 codes, which were grouped into 11 categories and three overarching themes (Table 2). There were 16 codes related to personal growth (theme 1), 69 codes associated with supports for learning (theme 2), and 62 codes identified as challenges (theme 3). All data were triangulated to validate and develop a comprehensive understanding of the data.

### **Study limitations**

As noted, this study was conducted in one mid-sized university. Given the number of participants in the program, it may be difficult to generalize to other contexts. No undergraduate student was a part of the planning committee given that the purpose of the program was to improve educational research skills for faculty, staff, and graduate students. This study used self-reporting techniques to collect data and, therefore, reflects only the perceptions of the attendees (participants) and facilitators. Feedback on individual sessions was provided by individual participants, and although they did not

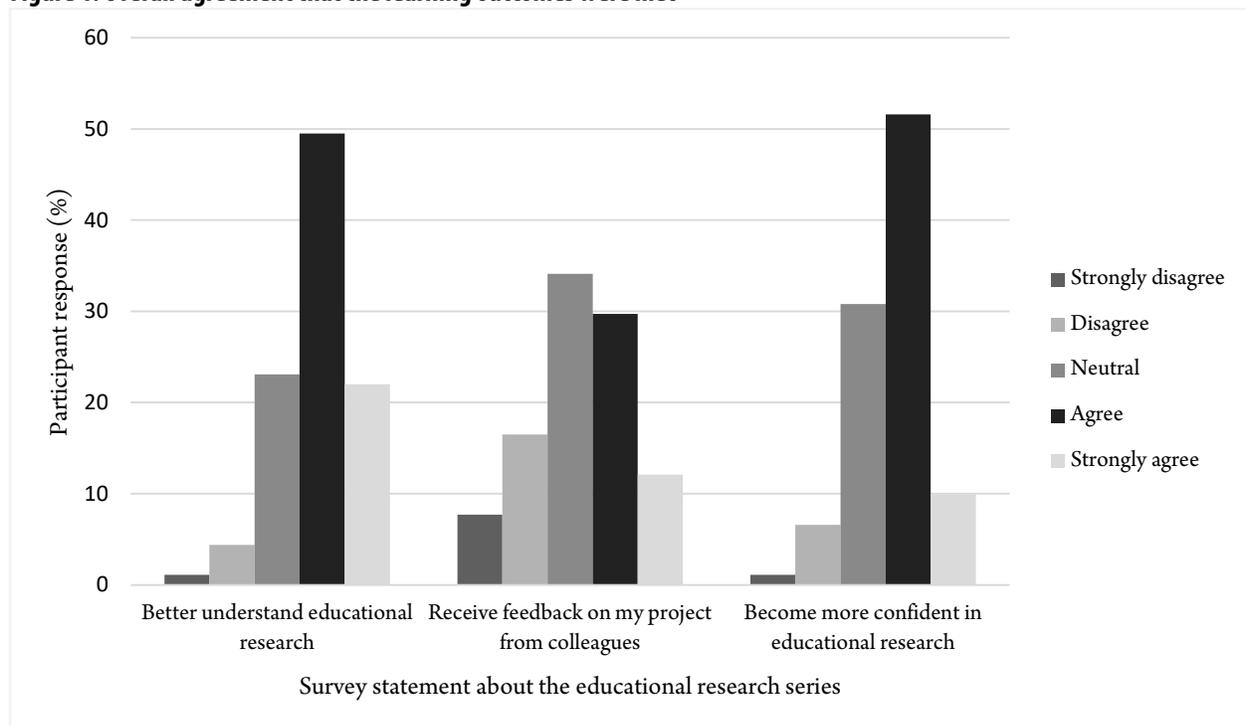
attend every session in the program, the analysis does reflect a synthesis of repeated perceptions across all sessions. As well, no follow-up was conducted to determine participants' subsequent changes to their practice or research work; however, this will be a focus of future research.

## FINDINGS

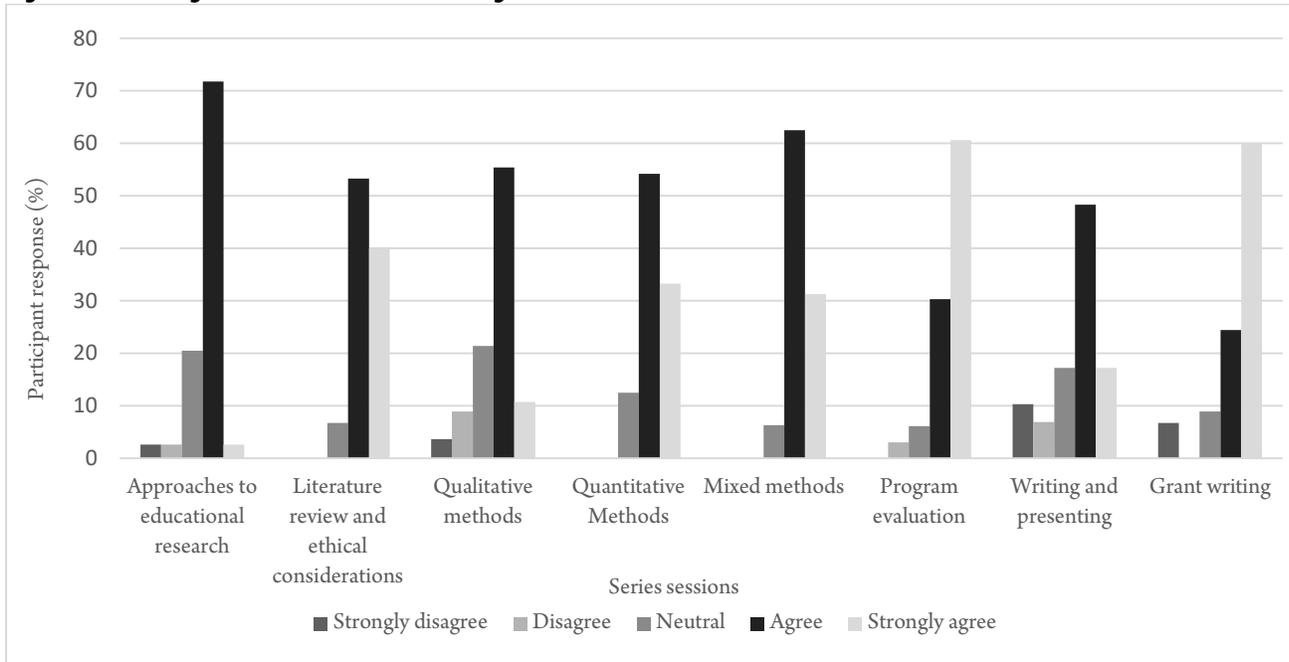
Although the majority of participants attended one or two sessions, the findings reflect themes that were repeatedly identified across all sessions of the program. It is a compilation of common perspectives on specific sessions that provide the description for the program as a whole, rather than the individual sessions.

Figure 1 summarizes the quantitative data across all common items in the exit surveys. Overall, participants agreed that they networked with colleagues (79.4 percent), better understood (71.5 percent) and became more confident (61.5 percent) in educational research. However, they did not feel they received sufficient feedback on their projects (41.8 percent). Figure 2 synthesizes the level of agreement that the session learning outcomes were met. A majority of participants agreed that the learning outcomes were met (80.6 percent). However, participants in the sessions on qualitative methods, and writing and presenting research were less likely to agree that the session learning outcomes were met.

**Figure 1. Overall agreement that the learning outcomes were met**



**Figure 2. Overall agreement that session learning outcomes were met**



Three overarching themes and 11 categories emerged from the analysis (Table 2). The themes included personal growth, supports for learning, and challenges to learning. Comments were coded by interview or focus group number to protect the anonymity of the participants (e.g., “I1” for interview 1; “FG1” for focus group 1). Interviews were conducted exclusively with session participants and focus groups were comprised solely of session facilitators.

**Table 2. Emergent themes and categories**

THEME	CATEGORY	NUMBER OF PARTICIPANT INTERVIEWS (%) / FREQUENCY OF QUOTES CODED	NUMBER OF FACILITATOR FGS (%) / FREQUENCY OF QUOTES CODED
Personal growth	Understanding of and support for educational research	9 (100%) / 39	2 (67%) / 4
	Individual and collegial research interests	9 (100%) / 28	2 (67%) / 4
Supports for learning	Opportunities for individual learning	9 (100%) / 44	2 (67%) / 3
	Supporting resources	7 (78%) / 19	1 (33%) / 1
	Facilitator expertise	9 (100%) / 27	1 (33%) / 3
	Interactive sessions	5 (56%) / 11	3 (100%) / 4
	Multidisciplinary focus	9 (100%) / 21	2 (67%) / 3
Challenges to learning	Depth versus breadth	8 (89%) / 31	3 (100%) / 15
	Time	8 (89%) / 21	3 (100%) / 17
	Educational language and theory	4 (44%) / 6	3 (100%) / 17
	Recognition	2 (22%) / 2	3 (100%) / 8

### **Personal growth**

The reasons attendees and facilitators participated included understanding and support, and both individual and collegial research interests.

### **Understanding of and support for educational research**

The Educational Research Series attracted participants who desired to increase and support their understanding and practice of educational research. For example, participants stated that they wanted, “something that would help me get some foundational knowledge that I could then springboard off of for self-study and further research” (I6), “to have a better understanding of methodology” (I7), and “to learn a little more about education research and qualitative research in particular” (I4). Most of the facilitators reported that part of their interest in participating in the program was to support their colleague’s research. One noted, “it seemed like a very collegial thing to do” (FG3), while another stated,

*I had often perceived the support for teaching at [this institution] to be about helping people design and deliver courses, but I had not noticed many opportunities for people to learn about research and to really support them doing their research . . . [I] like and value the opportunity to support colleagues as much as possible. So, I thought this was a fantastic project. (FG2)*

### **Individual and collegial research interests**

All participants were interested in the support the program would provide for their own and colleagues’ research interests. For example, one participant expressed that the program was “well-timed in terms of supplementing some learning that I already had and where I am in my interest in educational research” (I7) while another noted that, “What I wanted mostly was some knowledge about how people are approaching this [educational research]. So practical knowledge” (I4). Participants were also interested to learn about what others were doing in the field:

*The other motivator for me was to get my butt off the schneid [slang] and get going on my own research project . . . to get some specific ideas on my research project [and] to get an exposure to other people’s research projects, understand what is being done, and the types of things that are being done that can help design [my research]. (I1)*

### **Supports for learning**

Individual learning, supporting resources, facilitator expertise, interactive sessions, and a multidisciplinary focus were considered the strengths of the program.

### **Opportunities for individual learning**

Overall, the Education Research Series was well received according to the 92 responses to the exit surveys, with most (71.5 percent) responding that they believed it increased their understanding of educational research and 88 percent of participants stating that they would recommend the program to their colleagues. This positive response was also reflected in the interviews as this was the most frequently cited category for participants (Table 2). One participant, for example, noted,

*[t]his Series gave me the opportunity to see myself as a researcher. I was really grateful for that. In some ways it was transformative for me because it permitted me to see the possibility of the value of my own work as an educational researcher. (I6)*

Two facilitator focus groups found the participants were engaged and dedicated to learning in this area: “The people who come are truly dedicated and really are serious about learning” (FG1), and viewed it as a method for increasing awareness of and sharing internal research.

### **Supporting resources**

Most participants pointed to their increased knowledge of educational research being supported by strong resources and information provided at each session. For example, a participant noted that the information available enhanced what they knew before the program: “The literature and the ethics were good as well. Of course, I knew them before attending but there is new information that I was able to acquire” (I2), while another stated that the session on program evaluation, “gave us some ideas that I had not thought about before in terms of evaluating as you go” (I4). Some participants found value in the resources provided both at the sessions and then shared through a learning-management software program, as demonstrated by the following two comments: “Because there is an onQ [the institution’s learning management system] website it will focus you and the references are provided and those are very valuable” (I2); “A number of the sessions gave out references for future reading which was in my opinion a really big strength because there is just never enough time and they can point out their favourite references” (I4).

### **Facilitator expertise**

Individual participants across all sessions highlighted the expertise of facilitators, who included faculty and staff who support educational research both within and outside the institution. This statement does not imply that a single participant would acknowledge the expertise of facilitators in every session; rather it reflects the synthesis of individual comments. For example, participants stated, “One of the strengths was having different presenters who knew a lot about their topics. That was a good strength” (I4), while a facilitator was, “excited by our [teaching and learning center) partnering with health sciences to offer support to instructors of various types who are interested in doing research” (FG2).

The facilitators were identified by participants as an excellent resource and the participants valued opportunities to work one-on-one with them. As one participant expressed,

*I think the most helpful ones [sessions] for me have been the lit[erature] review one when the librarian came over and helped me do it right there. And actually, the last one we did, the approaches to program evaluation, was amazing. I had the librarian back again and I had an expert in program on evaluation who basically walked me through the whole work sheet. I thought it was immensely useful. (I3)*

Another agreed: “The instructors were all very good and that helps a lot” (I2). Additionally, facilitators reported having a positive and rewarding experience with the program and stated that they would participate in future iterations.

### **Interactive sessions**

Each session of the program was scheduled for three hours, and facilitators were encouraged to include time for instruction and for participants to apply their learning in hands-on, interactive activities. One participant’s comment summarizes the view of the majority:

*I think the stuff that we actually got to do hands on and practice was the strongest part of that. So we were given a bit of the background and framework. So here is an exercise, go do this. Go search the literature or appraise these types of articles or abstracts and I found it very helpful. (I5)*

The interactive nature of specific sessions was identified as a strength. One person noted that, “the way that they [the facilitators] run the sessions it is a lot of interaction and a lot of participation that is encouraged rather than you sit there and listen. So that is very helpful!” (I2), while another believed that “the best part of all of them is the small group work, the interactiv[ity], and the fact that you have all the experts actually come to your table and help you work through the thing” (I3). The benefits of the hands-on activities were also reflected in the comments from the Exit Surveys and included, “Small Groups: get one-on-one time with a librarian. Very helpful!” (ES2) and “Interactive exercises were great. [The] gallery walk was especially helpful” (ES5). Most facilitators also responded positively to the interactivity of the sessions, as suggested by the following comment: “I think some of the strengths were in the activities that we got them to do. We tried to tie them closely to the kinds of process that they would go through” (FG3).

### **Multidisciplinary focus**

The program was open to any researchers at our institution with an interest in educational research and was advertised across academic units via a generic invitation from the Centre for Teaching & Learning without a subject-specific orientation. The program showcased a variety of educational research methods (qualitative, quantitative, mixed methods, program evaluation) in a multidisciplinary environment which encouraged participants to explore methods less common in their specific disciplines. Most facilitators would recommend this series either as a participant or as a facilitator: “It is a great way to connect with colleagues and to get an understanding of what is happening in other disciplines and to share your expertise at home is great” (FG2).

The multidisciplinary environment of the program was generally viewed as positive by all participants, as the comments below illustrate:

*[It was] useful to be there with a mixed group of people . . . Being able to see the problems from different perspectives—there were psychologists there, legal people there, and basic scientist people there. And so that in some ways was useful. (I7)*

*More of an educational or a research point of view is helpful. We don't get a lot of mix in that here. We are very medical, medical, medical. So to have that outside perspective and suggestions are all quite helpful. (I3)*

*I would say inter-disciplinary is better because we had some interesting discussions, for example, with people from the Faculty of Law. Who would have thought they were doing this type of work and if you just make it to the health sciences then you will lose out on this interesting and unusual group of people. (I8)*

*[It is] a pleasant thing to get to know colleagues who are researching in different areas. It is a pleasant thing to acknowledge that there are standard difficulties that occur for any person involved in educational research regardless of their base discipline (I6).*

*Naturally sort of grouped themselves with people from other disciplines worked well. (FG1)*

In contrast, however, a few participants and facilitators felt that offering a discipline-specific series may be a better approach. As two facilitators stated, “I think it might be a good idea to consider discipline specific [sessions], even if you did it more times throughout the year” (FG1); and “the participants were heavy from the health sciences side which is wonderful. But I would like to see either this series expanded or even to run in tandem so one for a more health sciences based approach lens and one for a humanities lens” (FG3). Similarly, two participants felt “it would in general be better if it was limited to health sciences folks” (I1), suggesting, “I do feel some focus on health science and probably a large fraction of the participants are from the health sciences. I do feel maybe in the future the case studies could be broader topics and that would help” (I2).

### **Challenges to learning**

The main challenges identified about the program focused on depth versus breadth, timing, and educational language and theory.

#### *Depth versus breadth*

One of the main challenges of the program was providing enough depth to meet the needs of individual participants, especially given the varying levels of knowledge and experience with educational research. As one somewhat experienced participant stated, “It was delivered in a fairly basic level . . . I feel like the sessions as delivered were a good introduction for sure. I feel that it left me wanting a bit more because I have a bit of a background” (I7). Others offered observations such as the following: “It is kind of hard to try to cover everybody” (I3); “I wanted more of everything. More practice, more time, more examples . . . more depth” (I8); and “I wanted more in-depth information. I wanted more structured information . . . I just wanted more. And that was driven by a hunger for grounding” (I6).

The diverse backgrounds of the researchers attending the program was also a challenge for facilitators. For example, one facilitator described the struggle in preparing for their session:

*What can I teach them about how to apply [types of data analysis] if they don't already have a background? And if they already have a background then they probably know as much or more than I do. So I really had difficulty going in and thinking "how do I pitch this?" (FG2)*

Another facilitator commented, "not having everyone at the same general level threw us off a bit [because there was] such a disparity or wide range of people attending the session" (FG3).

#### *Time*

The average number of participants who attended each session ( $n=15$ ) averaged one half of the total number who preregistered for each session. While the session dates were advertised at the beginning of the school year, participants still reported "conflicts with other commitments" (I1). The exit survey responses suggest that while the program was found to be valuable and was positively received by participants as an introduction to educational research, the timing of the sessions was a challenge, particularly for the third, fifth, and sixth sessions. Other participants suggested that three hours per session was not enough time to cover the content. One participant noted, for example, "[p]resenters have a very limited amount of time—3 hours—in which to compress all of their expertise" (I6). This sentiment was especially echoed in exit survey responses on how the session could be improved: "It deserves more time . . . More time with coding and describing . . . More time spent on activities" (ES3); "Day-long session" (ES6); and "[i]ncrease duration of the series to work through the workshop" (ES6). In contrast, a few participants stated that they were able to learn in a condensed period of time: "The session was a great refresher in quantitative methods. It was unexpectedly rich in content, given that it was only three hours!" (ES4). The facilitators also noted the lack of time to cover all the material: "I don't believe I had enough time" (FG1).

#### **Educational language and theory**

A few interview participants and all focus group facilitators agreed that there was a need for The Series to provide an initial session that focused the educational discipline, prior to learning about education research approaches and methods. As the comments below illustrate, participants wanted a background on educational learning theory, as that was the piece they felt was missing in their learning during the program:

*What I quickly found out when I attended is that I have no background in education theory. And that was a big gap on my part and that . . . I don't know if there could be a session on different theories of education? Because for me I came in there and felt that it was a big gap. (I4)*

*We have them see that even if they may feel overwhelmed at this thought of having to match education theory into an innovation, because it unto itself is a huge field, that at least they know that they are coming in with assumptions . . . And so I think it has to be done very thoughtfully so you don't blow people away with the language of education. But [them knowing] that it really pragmatically ties into what they are doing would be helpful. (FG2)*

### Recognition

All facilitators and only two participants believed that it was important for those conducting educational research to be acknowledged within their department. They viewed educational research as a valuable contribution to learning in their field and believe it is a form of research that stands alone in its own right: “I don't know if there needs to be . . . telling the departments that are involved that this is a legit[imate] educational activity. You should either recognize it as legit[imate] or not penalize people for going.” (I3). Another facilitator commented, “[w]e are a research intensive University but we don't seem to apply it in a systematic way across the institution. There are a lot of people doing research but in a systematic way I don't see a lot of education and support for folks in all the different departments” (FG2)

### DISCUSSION

In the scenario of educational research workshops, opportunities for networking and engaging with other participants was given a high priority to encourage posing questions, clarifying concepts, and explaining ideas from different perspectives. Attendees represented many disciplines, and the organizing group hoped that interactions among individuals from a range of fields of specialization would be empowering during educational research activities. (Table 2 lists the number of individual comments made by facilitators in focus groups and individually interviewed participants against the emergent coding categories.) The facilitators were experts in some aspect of educational research and were invited to lead sessions on the basis of this knowledge. Their role was that of instructor and their comments on The Series reflect this teaching perspective. They comment more frequently on aspects that concern themselves as educators such as participant prior knowledge, lack of familiarity with educational research language and terminology, and how their individual session fits within the overall Series curriculum. Participants focus more on the learning environment and how it supported their needs. The program's coordinators also faced organizational challenges as they worked behind the scenes to recruit facilitators and bring cohesion to the overall learning experience. For example, all facilitators were invited to meet as a group to accomplish the following:

- review the purpose and logistics of the program as a whole
- share learning outcomes for all workshops
- discuss approaches for engagement and networking
- exchange ideas for resources and handouts

The lessons learned from this study are pertinent to educational developers who are investigating how to advance a culture of educational research in postsecondary education. In the last five years, institutions have explored different techniques for engaging educators in the study of their own teaching, including scholarship institutes (Marquis, 2015), writing groups (Chitpin, 2011; Marquis et al., 2014; Pleschová & McAlpine, 2015), workshops (Weaver et al., 2013; Lawrence et al., 2016), and peer mentoring (Chitpin, 2011; Pleschová & McAlpine, 2015). These approaches collectively demonstrate the power of a community of practice to sustain engagement with the study of teaching and its potential to lead to change in teaching practice. Traditionally, a community of practice describes a group who come together for a common purpose. The sustained focus on education research provided a venue for a community developed around a central goal—to learn about educational research.

Fostering this type of community of practice is a challenge (we note issues with variable attendance, scheduling, and lack of connection to merit). Given the increased awareness due to our institution's Educational Research Series, this may be the start of an ongoing community of practice in our university community. Results from the evaluation illustrate that participant responses described the principles of adult learning and constructivism, which were an intentional aspect of the workshop design. For example, the program was designed to support participants' learning projects, enable collegial interaction and feedback, and incorporate active engagement within a supportive and respectful environment—all of which are core principles of adult learning.

### **Application of adult and constructivist learning principles**

Many of the strengths of the program align with the principles of adult (Knowles et al., 2015) and constructivist learning principles. The learning environment was collaborative and respectful and provided content that had immediate utility, focused on learning needs, reinforced the application of learning, related directly to participant work, and maximized the use of resources. Workshops continued over eight months and encouraged the continuous review and application of content to individual projects. Participants were invited to bring their work for collegial feedback and ask questions that related to their own specific contexts. This reinforced the utility of each session and helped to establish an applied learning environment that enabled attendees to anticipate how to use their learning and improve and advance independent projects.

The setting was resource rich in terms of facilitator expertise, learning materials, and the participants themselves. Registrants endorsed the multidisciplinary approach that underscored the decision to offer a campus-wide series to support educational research, rather than a faculty-specific experience. Consequently, the learning environment brought together individuals with diverse experiences and ways of knowing thereby fulfilling the guiding principle of maximizing available resources by providing multiple perspectives (Knowles et al., 2015).

In alignment with the education literature for optimal learning environments, the program prioritized and created a safe and interactive space to enhance learning (Abell, Jung, & Taylor, 2011; Borko, 2004; Scott, Penaluna, & Thompson, 2016). Participants reported specific appreciation for the relaxed, multidisciplinary, and personable approach that is reported in the adult learning literature—learners prefer to learn in a climate that is collaborative, respectful, and informal (Knowles et al., 2015; Wlodkowski & Ginsberg, 2017). The program was collaborative by the nature of the group activities; respectful in its inclusivity across all employee groups, departments, and learning levels within the institution; and informal through its collegial and learner-centered approach. The need-supportive learning environment was considered by all involved to be a major driver of the success of the program as corroborated by similar adult education initiatives (Knowles et al., 2015; Mathisen, Einarson, Jørstad, & Brønnick, 2004).

An outcome for every session was to provide an opportunity for participant networking and interaction. Networking was defined as opportunities for individuals to interact by solving problems, completing tasks, and sharing personal projects. Each workshop was designed using constructivist learning principles so participants could apply their prior knowledge and direct the session through questions and discussion. Constructivist activities included identifying important questions about teaching and learning for study in their context and discipline, mapping the resources that can be searched in an education literature review, critiquing research methods used in specific cases, proposing

interview questions for an individual study, and simulating a real focus group session. These learning scenarios triggered continuing social interaction throughout each workshop encouraging participants to engage in sense making by drawing on their personal knowledge and experiences. Participants consistently identified these active learning hands-on strategies as a highlight of every workshop.

Seating was random in each session, and educators from different departments interacted within the small-group arrangement of tables. Some data indicated that this multidisciplinary mix proved useful, although the degree of desired networking across departments did not always occur as expected when there was insufficient time to fully unravel and provide feedback on personal projects. Future iterations of the program can address this deficiency by leaving more time for project sharing and discussion, and by helping participants reflect on their own work continuously throughout the program that incorporating formative feedback from colleagues.

### **Considerations for future educational research workshops**

This evaluation offered the planning committee a means for reflecting on the provision of professional development to advance educational research efforts. While it can be confirmed that The Series met most participant needs, there are improvements to be made moving forward. As the findings indicate, future iterations of the program will need to recognize the following:

- An advanced series would assist in addressing the depth versus breadth issues.
- Pre-session readings would focus and facilitate the face-to-face session discussions.
- A pre-session survey could better identify specific learning needs of participants.
- An introductory session that introduces participants to the field of educational research and its specific language would be beneficial for setting the context and identifying common theoretical frameworks.
- Dedicated time would allow participants opportunity to focus on and develop their own educational research proposal or project with support.

It remains unclear, however, if these changes will increase the number of people participating in a larger number of sessions, rather than just one or two. This is one intended program outcome that was not met in the program, and it will be a focus of future iterations.

In terms of measuring outputs, apart from recording the number of attendees at each session, we are following up on people who attended one or more sessions and their subsequent work, including SoTL-focused grant applications; initiation of SoTL-focused projects; presentations of research on teaching and learning in the form of departmental presentations or external conferences; formal presentations at annual campus showcases of teaching and learning; and publications that document the result of specific research focused on teaching and learning. Collection of this data is ongoing, acknowledging that in the field of SoTL, research follows the cycle of research initiation, data collection and analysis, sharing in a range of forums, and finally publication. Although this evidence is not a direct measure of student learning or improved teaching practice, it indirectly reflects intention to improve teaching through evidence-based practice. Data collected to date through a comparison of names of attendees at one or more sessions of the program from 2016 to 2019 to SoTL-focused grant applications, presentations, and publications is presented in Table 3.

**Table 3. Statistics illustrating impact of the Educational Research Series**

Attendees (2016–2019)	188
SoTL-focused grant applications	39
Other SoTL-focused projects underway or completed	21
Presentations at annual campus showcase of teaching and learning	18
SoTL-focused presentations at conferences/meetings	38
SoTL-focused journal publications	24

Questions remain concerning the interpretation of these statistics in terms of impact on teaching and learning, and how they demonstrate the value of the program. Apart from these instrumental measures, Bamber and Stefani (2016) invite educational developers to corroborate and triangulate value drawing on their experience, judgment, and knowledge of the context at hand. Using this framework, we would consider the program to be a successful approach to cultivating evidence-based teaching approaches, increasing awareness of the scholarship of teaching and learning, and supporting increased knowledge and skills in the field of educational scholarship.

## CONCLUSION AND FUTURE RESEARCH

This grassroots faculty development program on research on teaching and learning was well received by participants and provided a foundational introduction to educational research. It demonstrated the benefit of integrating varied perspectives when learning about educational research and that capacity building exercises for researchers in higher education can cater to a number of interests simultaneously. To achieve effective multidisciplinary learning, however, attention must be focused on strategies that break down the siloes inherent in academia, specifically within the context of professional development for scholars and researchers. Given that all participants in this study expressed a need for a more in-depth version of the program, we are offering a follow-up, called the Advanced Educational Research Series; our evaluation will mirror the research method described in this article.

Future research could capitalize on the foundation of the program as a proof of concept and could include specialized iterations that addressed the identified limitations. Should the program be expanded to other higher education institutions, given that the foundation has been laid, a study that investigates the effectiveness of the programs could be implemented. The goal is to administer an online follow-up survey to participants to determine changes in their behavior—practice or research work and the impact on student learning—as a result of the program. This will help us to further determine the impact of the program on teaching practices and student learning, project implementation and completion rates, and knowledge translation activities.

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## APPENDIX A

### Session 1 Exit Survey: Approaches to Educational Research

#### Identification

Please answer the following to enable us to anonymously link your responses to other exit surveys.

First letter of your mother's first name. \_\_\_\_\_

Last number of the year you were born. \_\_\_\_\_

First letter of the first street/avenue you remember living on from your childhood. \_\_\_\_\_

#### 1. Affiliation

What Department(s), program(s), and/or office(s) are you associated with?

#### 2. As a result of this session, I am better able to:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) describe a focus for a specific educational research study.	<input type="radio"/>				
b) map potential types of evidence that can answer an educational research question.	<input type="radio"/>				

c) develop a research question with the support of peer feedback.	<input type="radio"/>				
-------------------------------------------------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

3. This session effectively enabled me to:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) engage with a network of colleagues focused on educational research.	<input type="radio"/>				
b) better understand educational research.	<input type="radio"/>				
c) receive feedback on my project from colleagues.	<input type="radio"/>				
d) become more confident in educational research.	<input type="radio"/>				

4. How did you hear about this session? Please select all that apply.

- Faculty Development Newsletter (Health Sciences)
- Faculty Development Website (Health Sciences)
- OHSE (Office of Health Sciences Education)
- Other \_\_\_\_\_
- CTL Newsletter
- CTL Website
- Word of Mouth

5. Please describe any unexpected learning from this session.

6. Please describe any personal goals for this session that were not addressed.

7. What were the key strengths of this session?

8. How could the session be improved?

9. Series Participation:

	1	2	3	4	5	6	7	NA/Unsure
a) How many sessions have you participated in to date?	<input type="radio"/>							
b) How many sessions do you plan on participating in?	<input type="radio"/>							

10. Do you plan to conduct the project that you are developing in this Educational Research Series?

Yes No Maybe

11. If you answered "Maybe" to the question above, what supports would you require to assist you in conducting your research?

12. Would you recommend participation in the Educational Research Series to your colleagues?

Yes No Maybe

## APPENDIX B

### Educational Research Series: Participant Interview Questions

1. How are you associated with the university?
2. Have you ever done educational research before?
  - a. If yes, can you describe your past experience?
3. What are the reasons you decided to participate in this session?
4. How, if at all, did the session meet:
  - a. your needs?
  - b. disciplinary needs?
  - c. departmental needs?
  - d. institutional needs?
  - e. Other needs?
  - i. Do you feel you received enough information on the topic(s) in your session?
    - a. If so, what type of information most benefited you?
    - b. What information was least beneficial to you?
    - c. Do you feel you needed additional clarification at any point during the session?  
Please explain.
  - ii. What information about this topic would you like to know more about?
  - iii. What additional skills do you think you gained, or were reinforced, as a result of this session?
5. How, if at all, did the session **NOT** meet:
  - a. your needs?
  - b. disciplinary needs?
  - c. departmental needs?
  - d. institutional needs?
  - e. other needs?
6. What do you think were the strengths of this session?

7. What do you think were the challenges of this session? What do you think could be improved?
8. Do you plan on participating in any more of these sessions? Why or Why not?
  - a. If 'yes': Which ones are you planning to attend? Why?
9. Is there anything else about this session or the Educational Research Series in general that you would like to add but haven't yet had the opportunity to do so?

## APPENDIX C

### **Educational Research Series: Facilitator Focus Group Protocol**

10. What department or office are you associated?
11. What is your occupation/title?
12. What were your reasons for agreeing to facilitate one or more of these sessions?
13. In what ways do you think the session(s) met the needs of the participants?
  - a. How do you think the session(s) **did not** meet the needs of the participants?
14. In what ways do you think the session(s) met the stated learning outcomes?
  - a. Where there any ways you think the session(s) **did not** meet the stated learning outcomes?
15. How, if at all, did the session meet:
  - a. your needs?
  - b. disciplinary needs? [**Note:** Were there enough examples/case studies from your discipline?]
  - c. departmental needs?
  - d. institutional needs?
  - e. Other needs?
16. How, if at all, did the session **NOT** meet:
  - a. your needs?
  - b. disciplinary needs?
  - c. departmental needs?
  - d. institutional needs?
  - e. other needs?
17. What do you think were the strengths of this session?

18. What do you think were the challenges of this session?
  - a. What do you think could be improved?
19. Would you recommend facilitating a session in this series to your colleagues? Why?
20. Would you recommend participating in this Series to your colleagues? Why?
21. Is there anything else about this session(s) or the Educational Research Series in general that you would like to add but haven't yet had the opportunity to do so?



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