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Broadening the Scope and Impact of Occupational Therapy Education Research by Merging Two Research Agendas: A New Research Agenda Matrix

Keywords

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Credentials Display

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Research and scholarship in occupational therapy education are evolving from predominantly descriptive work to research designs that incorporate theoretical frameworks, the scholarship of teaching and learning (SoTL) and varied research methods, multiple cohorts, diverse outcome measures, and assessment development—as the studies in this issue of *The Open Journal of Occupational Therapy* (OJOT) reflect. To illustrate, papers published between 1999 and 2009 relied largely on descriptive scholarship, meaning that projects emerged from and focused on a “local learning situation” (Hooper, King, Wood, Bilics, & Gupta, 2013, p. 12). The strongest aim in that work was to disseminate innovative teaching and learning experiences that were commonly designed in the authors’ courses or programs and validated through students’ perceptions of the experiences. To be clear, descriptive scholarship and student perception outcomes are important because, when framed as research, these studies establish and distinguish constructs for learning occupational therapy and they identify learning contexts in which the constructs apply—two foundational steps for future research. Thus, it was the predominance, not the presence, of descriptive scholarship that characterized education scholarship between 1999 and 2009 as early-phase research. However, in recent years, education leaders in occupational therapy have inferred that research and scholarship are evolving. Burke and Harvison (2015) observed “an uptick in the quantity and quality of scholarly projects” (p. 1), referring to research papers presented at two national education conferences and published in two journal supplements on education.

As education research continues to evolve, one conceptual challenge will need to be addressed: The nature of education research, as traditionally designed, counters what is needed to grow it.

The Nature of Education Research May Complicate Building the Science

Education researchers and scholars face a challenging paradox: The access we have to studying educational issues and opportunities is often specific and local, creating a challenge for generalization and theory-building, two ingredients for growing a science. The questions explored through the SoTL and other research methods often arise in response to an opportunity in a specific program—for example, the availability of a high-fidelity simulator, standardized patients, or multiple sections of a class; relationships with particular community agencies; new admissions procedures; novel fieldwork opportunities; online learning or a university promoting flipped classrooms; community engagement; or interprofessional learning. Education research design is challenging because each specific opportunity is situated in what Berliner (2002) referred to as “the ubiquity of interactions” (p. 19). That is, each opportunity interacts with numerous additional features that influence learning and cannot be controlled, such as learner and educator motivation on any given day, educator beliefs and training, student beliefs and prior learning, curriculum sequence, physical space, ideas of what is most important to learn, and student-peer interactions, to name a few. As if research design in a local learning context was not complicated enough, extending a line of inquiry to multiple sites only compounds the interactions

influencing learning. Each research context involves a different curriculum, different learner characteristics, variable teaching workloads and methods, unique classroom cultures, and varied educator experience, among many others. Berliner summarized that given the innumerable, local, uncontrollable interactions that influence teaching and learning each moment “we do our science under conditions that physical scientists find intolerable” (p. 18). These conditions may help explain why descriptive and qualitative work have been prominent in education scholarship.

That education research is inherently embedded in local, complex social conditions can limit generalization and contributions to theory building, which in turn can slow the cumulative knowledge building process. According to Berliner (2002), “a science that must always be sure the myriad particulars are understood is harder to build than a science that can focus on the regularities of nature across contexts” (p. 19). Even so, what we need to grow education science is work that accumulates, clearly relates to others’ work, and ultimately provides a basis for educational decisions. There is a need, therefore, to do good research in local learning situations and simultaneously enlarge its scope and impact. I propose that the two research agendas published by The American Occupational Therapy Association (AOTA), one for occupational therapy (2011) and one for occupational therapy education (2014), may together offer an opportunity to expand the scope and impact of individual studies of education.

Merging Occupational Therapy Research Agendas: A Potential Solution to Strengthen Education Science

The AOTA agendas set research priorities for the profession and invite researchers to integrate their work with one or more of the priorities. The occupational therapy agenda prioritized six research categories: assessment/measurement, intervention research, basic research, translational research, health services research, and research training. The education research agenda prioritized six areas in which more research is needed: educational theory, pedagogy, instructional methods, learner characteristics and competencies, socialization into the profession, and faculty development, a sub-category of which is research training, an overlapping priority of the two agendas.

As agendas for research, these are agendas for the science of therapy and education in the profession; as agendas for the profession’s science, neither seems sufficient in and of itself. The education agenda accentuates critical research gaps and needs—pedagogy, faculty, and socialization into the profession—therefore running the risk of equating science with the phenomena to which it is applied. An over-equating of science with phenomena without some emphasis on methods may, consequently, embrace most activities done in relation to those phenomena. The agenda for occupational therapy, with the exception of the research training category, accentuates methodology—intervention, translational, basic, and health services research—therefore running the risk of equating science with specific methodologies (Berliner, 2002). An over-equating of science with

methodologies may, consequently, marginalize other important methodologies, such as philosophical, theory-building, or historical inquiry.

Given that one agenda foregrounds research gaps and the other foregrounds methodologies, it strikes me that it might be useful for education researchers to synthesize the two agendas, integrating categories of research with phenomena needing investigation. Figure 1 presents a matrix combining the occupational therapy and the occupational therapy education research agendas. The rows correspond to the six areas for research in the education agenda. The columns correspond to the six categories of research from the occupational therapy research agenda. The occupational therapy agenda categories were translated for education by examining how each is represented in the education literature and re-defining them for education research where needed. I envision authors using the matrix to identify in their manuscripts where an educational study is situated and what contributions it makes at particular intersections of the matrix. Imagine the impact on generalization and the accumulation of knowledge if each education study published in an occupational therapy journal were to explicitly identify its primary contributions to the profession's education research agenda. Doing so would efficiently cluster like research, build on preceding work, and expand the scope and impact of a study.

I have attempted to categorize the papers in this issue of OJOT according to the cells of the integrated research agenda matrix. I describe the primary intersection of methodology and phenomena that four of the papers exemplify and

illustrate how such identification expands each paper's scope and impact. Clearly, most studies will address multiple priorities on the matrix but may be framed in one or two primary intersections on the matrix.

Garcia, Kugel, Javaherian-Dysinger, and Huecker (this issue) studied the specific health and occupational needs in a country where occupational therapy is an emerging profession and where no educational program exists. They used quantitative and qualitative methods to investigate "strategies and barriers to the sustainability of a new master's program and identify the local occupational needs of the population to be served by the program." Their work is specific to starting a new educational program in Trinidad-Tobago and exemplifies the significance of sound research of a specific local learning context. When situated in the profession's research agenda, however, the scope and impact of the study broadens beyond a useful process for designing curricula. In my view, the study resides at and contributes to the intersection of *basic education research* (describing constructs and a curriculum development process not well understood in occupational therapy), and *theory-building* work (identifying elements and their transactions for future models of curriculum design). By describing constructs, their transactions, and possible implications for curriculum development where occupational therapy education is new, the authors have in effect provided researchers with raw material—research questions, variables, methods—to consider for future research protocols investigating curriculum development.

Ivey et al. (this issue) offer an example of descriptive scholarship that explored an area of widespread relevance to occupational therapy faculty—how to integrate teaching, research, and service efficiently. Their descriptions of community engagement are highly specific to the university context and opportunities available at Virginia Commonwealth University. Their work illustrates and inspires how it is possible to enfold teaching, research, and service into community engagement and meet the tenure and promotion demands of an institution. When situated in the profession's research agenda, however, the scope and impact of the description broadens beyond good ideas for addressing diverse faculty roles. In my view, the paper resides at and contributes to the intersection of *basic research* and *faculty development*. When viewing their Lessons Learned through a basic research lens, the authors in effect provide future researchers with initial constructs and a potential intervention when investigating faculty role integration. Therefore, situated in the research agenda matrix, this work lays a descriptive foundation on which others can grow knowledge about the impact of community engagement on faculty development.

Henderson (this issue), finding that performance assessments commonly used in health sciences did not meet the needs of an onsite occupational therapy teaching clinic at the University of Missouri-Columbia, began the process of developing an assessment more suited to the clinic. Again, the need and opportunity were specific to the local context. Her work describes the

confidence that the tool will assess the competencies of the students in the University of Missouri clinic. The scope and impact of the description broadens, however, when situated in the profession's research agenda. The study resides at and contributes to the intersection of *assessment/measurement* and *learner competencies*. There is also a translational research element in the study as Henderson drew on instrument development work in other fields and translated it in and for occupational therapy. Placed in a larger research context, Henderson's paper invites other researchers to help build the assessment tool's psychometric properties and examine its application in other contexts. The scope and impact also extend to the development of other assessments.

Ciro and Isaacson (this issue) studied the learning opportunities afforded students in an intervention research-based Level I fieldwork compared to their peers who completed Level I fieldwork in typical settings. Again, the features of the study were highly specific to an opportunity at the University of Oklahoma—a particular line of research, conducted in particular faculty members' lab, that happened to be at just the right point of implementation when students also needed to do Level I fieldwork, and the researchers saw an opportunity to study learning in addition to their ongoing intervention study. Their work raises awareness of a novel Level I fieldwork that meets the needs of students and researchers. The scope and impact of the study broadens, however, when situated in the profession's research agenda. In my view, the study resides at and contributes to the intersection of *research training* and *pedagogy*, a

priority of both AOTA research agendas. The students learned about intervention research through a Level I fieldwork experience that, pedagogically, was designed using a group-based model that incorporated didactic lectures, active learning through role-playing, instructor feedback of video recorded client assessments, and consideration of the “social and temporal environment” as part of the learning experience. Thus, situating the study at this particular intersection on the agenda extends its scope beyond a good idea for Level I fieldwork; the study provides initial descriptions of the pedagogical features that contributed to learning in a research-based fieldwork placement, features which future researchers can build into a research protocol or study directly when investigating similar learning experiences.

These examples illustrate how researchers can use the research agenda matrix when writing education research for publication. Situating studies of local learning situations in the matrix can help cluster like research and build on preceding work, and thus aid generalization and theory-building, two ingredients for building the science and ultimately supporting educational decisions. The remaining papers of this issue are similarly classified in Figure 1, along with examples published previously. There are, of course, many contributing factors related to growing the knowledge of occupational therapy education, especially establishing funding sources and dissemination venues and expanding research capacity in methodologies used for large-scale studies in socially complex contexts. Sylvia Rodgers and I discuss several of these factors in this

issue’s *She Said, She Said* column. But intentionally aiming rigorous local studies at a broader horizon and explaining each study’s relationship to the overall topography of education research will create a stronger web of studies and aid the evolution of education research in and for occupational therapy.

		Assessment/ Measurement	Intervention Research	Basic Research	Translational Research	Education Policy and Systems Research	Research Training
	Definitions	Examine contextual influences on assessment; how assessment interacts with learning; develop instruments to measure: learning outcomes, impact of environment on learning, impact of learning on practice	Create and test novel, theory-based educational interventions; measure outcomes on multiple levels, including client outcomes	Describe, clarify, and test concepts related to learning in OT; examine relationships among concepts and conditions; examine mechanisms for knowledge transfer	Examine implications of novel developments in education in and for OT; examine the change process whereby new ideas are diffused and adopted in theory, teaching, and practice	Describe, clarify, and evaluate learning in relation to institution type, institution resources, mix of faculty, and curriculum sequences	Increase education research capacity
Theory- building (develop philosophies/ theories/ models for OT education)				Garcia, L. A., Kugel, J. D., Javaherian-Dysinger, H., & Huecker, E. (2016). Developing an Indigenous, Entry-Level Master's Degree Program in a Country with an Emerging OT Profession			
Pedagogy (establish and validate OT signature pedagogies)				Schaber, P. (2014). Keynote Address: Searching for and Identifying Signature Pedagogies in Occupational Therapy Education Gee et al. (2016). Interprofessional Education in Occupational Therapy: The Idaho State University Model			Ciro, C. A., & Isaacson, M. (2016). Student Rating of Skill Performance Opportunities in Faculty-Directed Research
Instructional Methods (relate specific strategies to learning)		Hayden, C. L. (2013). Online Learning of Safe Patient Transfers in Occupational Therapy Education		Vachon, B., Rochette, A., Thomas, A., Desormeaux, W. F., & Huynh, A-T. (2016). Professional Portfolios used by Canadian Occupational Therapists: How Can They be Improved?	Skarpaas, L. S., Jamissen, G., Krüger, C., Holmberg, V., & Hardy, P. (2016). Digital Storytelling as Poetic Reflection in Occupational Therapy Education: An Empirical Study		Privott, C. (2014). Student Advocacy and Research Regarding Employability with Women in an Addiction Recovery Center Thompson, M. (2013). Use of Participant-Generated Photography in a Research Contribution Course

Hooper: A New Research Agenda Matrix

<p>Learner Characteristics and Competencies (relate to learning and performance)</p>	<p>Gutman, S. A., & Falk-Kessler, J. P. (2016). Development and Psychometric Properties of the Emotional Intelligence Admission Essay Scale</p> <p>Hinojosa, J., & Howe, T-H. (2016). EPortfolio: The Scholarly Capstone for the Practice Doctoral Degree in Occupational Therapy</p> <p>Henderson, W. (2016). Development of a Clinical Performance Assessment Tool for an Occupational Therapy Teaching Clinic</p> <p>Vachon, B., Rochette, A., Thomas, A., Desormeaux, W. F., & Huynh, A-T. (2016). Professional Portfolios used by Canadian Occupational Therapists: How Can They be Improved?</p>		<p>Bathje, M., Ozelie, R., & Deavila, E. (2014). The Relationship Between Admission Criteria and Fieldwork Performance in a Masters-Level OT Program</p>	<p>Hills, C., Boshoff, K., Gilbert-Hunt, S., Ryan, S., & Smith, D. R. (2015). The Future in Their Hands: The Perceptions of Practice Educators on the Strengths and Challenges of “Generation Y” Occupational Therapy Students</p>		
<p>Socialization (link educational processes and professional identity)</p>			<p>Peganoff O'Brien, S., Marken, D., & Petrey, K. B. (2016). Student Perceptions of Scholarly Writing</p>			
<p>Faculty Development (study development of academic roles)</p>	<p>Crabtree, J. L., Scott, P. J., & Kuo, F. (2016). Peer Observation and Evaluation Tool (POET): A Formative Peer Review Supporting Scholarly Teaching</p>		<p>Ivey et al. (2016). Achieving Teaching, Scholarship, and Service through Community Engagement</p>			

Figure 1. Integrated Research Agenda for Occupational Therapy Education provides a matrix for locating studies and explaining their contributions to the larger body of educational knowledge (shaded cells indicate articles in this issue).

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