Scholarship in Occupational Therapy

This guidance document presents the position of the American Occupational Therapy Association (AOTA) on the importance of scholarship to the growth, development, and vitality of the profession and describes the range of scholarly activities that will advance the profession. In addition, this guidance document serves to inform both internal and external audiences concerning the expectations for—and the role of—scholarship in occupational therapy practices.

Occupational therapy practitioners view scholarship as a vitally important contribution to the profession, the academy, and ultimately to society. Hence, practitioners see that engaging in scholarship is a professional responsibility. Every occupational therapy practitioner should contribute independently or collaboratively to building the evidence base for occupational therapy practice and occupational therapy education (AOTA, 2017). Evidence of occupational therapy's commitment to scholarship is provided through the requirement of a scholarship agenda for all occupational therapy education programs in the entry-level accreditation standards (AOTA, 2018a).

It is important to distinguish between scholarly practice and scholarship. *Scholarly practice*, also referred to as *evidence-based practice,* involves accessing, appraising, using, and applying the knowledge base of the profession or discipline in one's practice (Zaccagnini et al., 2020). When engaged in scholarly teaching, educators draw on the "knowledge base on teaching and learning" (McKinney, 2007, p. 9) and their discipline or professional knowledge bases (Boyer, 1990; Glassick, 2000). Occupational therapy practitioners engaged in scholarly practice or scholarly teaching are reflective practitioners who assess and discuss their actions in light of the current knowledge base (Zaccagnini et al., 2020). In contrast, *scholarship* or *research* is "a

systematic investigation . . . designed to develop or to contribute to generalizable knowledge" (U.S. Department of Health and Human Services, 2018). Scholarship is made public, subject to review, and part of the discipline or professional knowledge base (Glassick, 2000; Glassick et al., 1997). Scholarship allows others to build on it and further advance the field.

Occupational therapy practitioners are committed to engagement in scholarship that honors societal ethical standards and adheres to the standards of rigor accepted by the scientific community. Occupational therapy scholars value empiricism as the means by which knowledge must emerge, recognizing that, through a variety of experimental and naturalistic means, one may achieve knowledge and understanding (DePoy & Gitlin, 2010; Kielhofner, 2006). Moreover, occupational therapy practitioners recognize that knowledge is established not in isolation but through interdisciplinary collaboration and intellectual discourse (Yerxa, 1987). As providers of therapeutic services, occupational therapy practitioners are committed to continually developing foundational and theoretical knowledge that underlies practice; understanding the process and outcomes of service; and finally, establishing evidence of efficacious therapy and educational outcomes (Kielhofner, 2006).

The profession recognizes the necessity of a broad range of scholarly endeavors that will serve to describe

and interpret the scope of the profession, establish new knowledge, interpret and appropriately apply this knowledge to practice, and engage learners in their development and understanding of the profession. The scholarly approaches as described by Boyer (1990) are relevant and legitimate to the profession: the Scholarship of Discovery, the Scholarship of Integration, the Scholarship of Application, and the Scholarship of Teaching. This range of scholarship is particularly relevant considering the diversity in the field of occupational therapy represented by stakeholders with varying educational backgrounds. The four types of scholarship are discussed in the order Boyer (1990) presented them in *Scholarship Reconsidered: Priorities of the Professoriate*. Boyer did not identify a hierarchy among the four types of scholarship, and none is intended in this document.

Scholarship of Discovery

According to Boyer (1990), the Scholarship of Discovery is the engagement in activity that leads to the development of "knowledge for its own sake" (p. 17). The Scholarship of Discovery encompasses original research that contributes to expanding the knowledge base of a discipline. It is the type of research that the academic community most easily recognizes and accepts and, as such, is often the expected vehicle for intellectual discourse within the academy. Traditionally, faculty members who are trained to be independent researchers in research universities conduct discovery scholarship. Such scholars are, according to Golde (2006), stewards of the discipline who are responsible for

generating new knowledge and defending knowledge claims against challenges and criticism; *conserving* the most important ideas and findings that are a legacy of past and current work; and *transforming* knowledge that has been generated and conserved by teaching well to a variety of audiences, including those outside formal classrooms.

Clearly, there is a need for scholarship in occupational therapy that expands the overall understanding of engagement in and the meaning of human occupation and its role in attaining and maintaining health. Clark (2006) noted that the profession needed a critical mass of the Scholarship of Discovery to continue to build the

theoretical and knowledge base for occupational therapy, to foster intellectual vitality, and to maintain and strengthen the central tenets of the discipline.

Scholarship of Integration

The Scholarship of Integration is concerned with making creative connections both within and across disciplines to integrate, synthesize, interpret, and create new perspectives and theories. This form of scholarship is the most similar to the Scholarship of Discovery, but the difference lies in the nature of the research questions. In this form of inquiry, the scholars' aim is to find the meaning of research findings and interpret the findings in ways that synthesize isolated facts from within and outside the discipline and integrate them to provide a richer and more thorough understanding of the issues (Boyer, 1990). In light of the complex nature of contemporary issues confronting the individual and society, the profession needs the Scholarship of Integration, which lies in the intersections of disciplinary boundaries, to generate new knowledge for occupational therapy to better understand and meet societal needs.

Scholarship of Application

Through the Scholarship of Application, practitioners apply the knowledge generated by the Scholarship of Discovery or Integration to address real problems at all levels of society. In occupational therapy, an example would be the application of theoretical knowledge to practice interventions or to teaching in the classroom. Another example may be using knowledge about the value of occupation as a health determinant to address health disparities of populations. Some authors, in focusing their efforts on application, have coined the term *Scholarship of Practice* (Braveman et al., 2002; Kielhofner, 2005), which focuses on program development and occupational therapy intervention. Another dimension of the Scholarship of Application is the Scholarship of Engagement, which focuses on an interactive, participatory scholarship with persons and organizations (Barker, 2004; Boyer, 1996). In this form of scholarship, multiple

stakeholders, including community members, produce knowledge. Regardless of differing terms, these activities fit best under Boyer's (1990) Scholarship of Application. In the broader context of the health sciences, the Scholarship of Application is often viewed synonymously with knowledge translation (Straus et al., 2011). However, "knowledge translation" refers to a type of scholarship application that often relates to the specific process of decision-making in health care.

Scholarship of Teaching and Learning

Boyer (1990) identified a fourth area of scholarship: the Scholarship of Teaching. Over time, it has been expanded to the Scholarship of Teaching and Learning, recognizing the interrelatedness of teaching and learning. The Scholarship of Teaching and Learning implies a "research agenda" and "involves the systematic study of teaching and/or learning and the public sharing and review of such work through presentations, publications, and performances" (McKinney, 2007, p. 10). Contributions must meet the rigorous standards of all forms of scholarship, be public, and be open to critical review (AOTA, 2018b).

Scholarship and Practice Roles

Scholarship must be generated, evaluated, and used to inform the many practice roles of occupational therapy. All occupational therapists and occupational therapy assistants, regardless of their individual practice roles, have the professional responsibility to not only use that evidence to inform their professional decision-making but also to generate new evidence through independent or collaborative research, or both. For example, research through the Scholarship of Discovery and Scholarship of Integration will contribute to the improved understanding of the constructs, processes, and theories (e.g., occupation and its therapeutic use) that provide the foundation for meeting society's complex occupational needs. At other times, through the Scholarship of Application, practitioners will establish evidence concerning the effectiveness of a specific intervention or the reliability,

validity, and utility of an assessment tool and appropriately use the intervention or assessment on the basis of the strength of that evidence. Finally, they may develop and use evidence derived from the Scholarship of Teaching and Learning in client education to support participation in meaningful occupations. Occupational therapy educators—including academic educators, academic fieldwork educators, and fieldwork educators—are challenged to find better ways to prepare diverse students to be competent professionals who advance the profession. Through the Scholarship of Teaching and Learning and the Scholarship of Application, they can empirically determine and apply better instructional methodologies to prepare students to meet the demands of a rapidly changing and increasingly complex health care environment, where consumers expect evidence-based practice and continuous professional development of all practitioners. Finally, administrators can contribute to, and benefit from, evidence produced through the Scholarship of Application when determining how best to meet the needs of clients in a cost-effective manner or how to better mentor or supervise others. Additional examples and benchmarks of scholarship are provided in the Appendix.

References

American Occupational Therapy Association. (2017). Vision 2025. *American Journal of Occupational Therapy, 71*, 7103420010. https://doi.org/10.5014/ajot.2017.713002

American Occupational Therapy Association. (2018a). 2018 Accreditation Council for Occupational Therapy Education (ACOTE®) standards and interpretive guide (effective July 31, 2020). *American Journal of Occupational Therapy, 72*(Suppl. 2), 7212410005. https://doi.org/10.5014/ajot.2018.72S217

American Occupational Therapy Association. (2018b). Occupational therapy education research agenda— Revised. *American Journal of Occupational Therapy, 72*(Suppl. 2), 7212420070. https://doi.org/10.5014/ajot.2018.72S218

Barker, D. (2004). The scholarship of engagement: A taxonomy of five emerging practices. *Journal of Higher Education Outreach and Engagement, 9*, 123–137.

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate.* Jossey-Bass.

Boyer, E. L. (1996). The scholarship of engagement. *Journal of Public Service and Outreach, 1*, 11–20.

Braveman, B. H., Helfrich, C. A., & Fisher, G. S. (2002). Developing and maintaining community partnerships within a scholarship of practice. *Occupational Therapy in Health Care, 15*, 109–125. https://doi.org/10.1080/J003v15n01_12

Clark, F. (2006). One person's thoughts on the future of occupational science. *Journal of Occupational Science, 13*, 167–179. https://doi.org/10.1080/14427591.2006.9726513

DePoy, E., & Gitlin, L. N. (2010). *Introduction to research: Understanding and applying multiple strategies* (4th ed.). Elsevier/Mosby.

Glassick, C. E. (2000). Boyer's expanded definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the scholarship of teaching. *Academic Medicine, 75*, 877–880. https://doi.org/10.1097/00001888-200009000-00007

Glassick, C. E., Huber, M. T., & Maeroff, G. I. (1997). *Scholarship assessed: Evaluation of the professoriate.* Jossey-Bass.

Golde, C. (2006, July). *Preparing stewards of the discipline. The Carnegie Foundation for the Advancement of Teaching.* https://files.eric.ed.gov/fulltext/ED498972.pdf

Kielhofner, G. (2005). A scholarship of practice: Creating discourse between theory, research and practice. *Occupational Therapy in Health Care, 19*, 7–16. https://doi.org/10.1080/J003v19n01_02

Kielhofner, G. (2006). *Research in occupational therapy: Methods of inquiry for enhancing practice.* F. A. Davis.

McKinney, K. (2007). *Enhancing learning through the scholarship of teaching and learning.* Jossey-Bass.

McKinney, K. (2013). *The scholarship of teaching and learning in and across the disciplines.* Indiana University Press.

Schön, D. A. (1983). *The reflection practitioner.* Basic Books.

Straus, S. E., Tetroe, J. M., & Graham, I. D. (2011). Knowledge translation is the use of knowledge in health care decision making. *Journal of Clinical Epidemiology, 64*, 6–10. https://doi.org/10.1016/j.jclinepi.2009.08.016

U.S. Department of Health Human Services. (2018). *Part 46—Protection of human subjects. Code of Federal Regulations Title 45—Public Welfare.* https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/revised-common-rule-regulatory-text/index.html#46.102

Yerxa, E. J. (1987). The key to the development of occupational therapy as an academic discipline. *American Journal of Occupational Therapy, 41*, 415–419. https://doi.org/10.5014/ajot.41.7.415

Zaccagnini, M., Bussières, A., West, A., Boruff, J., & Thomas, A. (2020). Features of scholarly practice in health care professionals: A scoping review protocol. *Canadian Journal of Respiratory Therapy , 56*, 38–41. https://doi.org/10.29390/cjrt-2020-007

Revised by The Commission on Education:
André Johnson, OTS, COTA/L (Chair)
Angela Atkins, OTR
Sarah Bream, OTD, OTR/L
Megan Edwards Collins, PhD, OTR, FAOTA, CAPS, CFPS
Alexis DuBose, OTS
Beth Ekelman, PhD, JD, OTR/L
Bryan Gee, PhD, OTD, OTR/L, BCP, CLA PhD
Erika Kemp, OTD, OTR/L, BCP
Constance Messier, PTD, OTR/L
Efekona Nuwere, Ed.D, OTR/L
Mary Kim Qualls, OTD, MS, OTR/L
Kenyatha Richardson, BS, OTA/L
Michelle Saksa, OTD, OTR, CHT, GTS
Rebecca L. Simon, EdD, OTR/L, FAOTA
Neil Harvison, PhD, OTR, FNAP, FAOTA

This document replaces the 2016 document: American Occupational Therapy Association. (2016). Scholarship in occupational therapy. *American Journal of Occupational Therapy,* 70 (Suppl. 2), 7012410080. https://doi.org/10.5014/ajot.2016.706S07

Citation. American Occupational Therapy Association. (2022). Scholarship in occupational therapy. *American Journal of Occupational Therapy, 76*(Suppl. 3), 7613410100. https://doi.org/10.5014/ajot.2022.76S3011

Appendix: Characteristics of Scholarship in Occupational Therapy

Type of Scholarship	Examples	Demonstration of Scholarship	Documentation
Scholarship of Discovery Contributes to the development or creation of new knowledge	• Primary empirical research • Historical research • Theory development • Methodological studies • Philosophical inquiry	• Peer-reviewed publications of research, theory, or philosophical essays • Peer-reviewed/invited professional presentations of research, theory, or philosophical essays • Grant awards in support of research or scholarship • Positive peer evaluations of the body of work	• Bibliographic citation of the accomplishments • Positive external evaluation of the body of work
Scholarship of Integration Contributes to the critical analysis and review of knowledge within disciplines or the creative synthesis of insights contained in different disciplines or fields of study	• Inquiry that advances knowledge across a range of theories, practice areas, techniques, or methodologies • Includes works that interface among occupational therapy and a variety of disciplines, including but not limited to occupational science	• Peer-reviewed publications of research, policy analysis, case studies, integrative reviews of the literature, and others • Copyrights, licenses, patents, or products • Published books • Positive peer evaluations of contributions to integrative scholarship • Reports of interdisciplinary programs or services • Interdisciplinary grant awards • Peer-reviewed/invited professional presentations • Policy papers designed to influence organizations or governments • Service on editorial board or as peer reviewer	• Bibliographic citation of the accomplishments • Positive external evaluation of the body of work • Documentation of role in editorial/review processes
Scholarship of Application, Practice, or Engagement Applies findings generated through the Scholarship of Integration or Discovery to solve real problems in the professions, industry, government, and community	• Development of clinical knowledge • Application of technical or research skills to address problems • Participatory action research involving collaboration with community groups • Efficacy of treatment approach • Developing valid outcome measures	• Peer-reviewed publications of research, policy analysis, case studies, integrative reviews of the literature, and others • Activities related to the faculty member's area of expertise (e.g., consultation, technical assistance, policy analysis, program evaluation, development of practice patterns) • Peer-reviewed/invited professional presentations related to practice • Consultation reports • Reports compiling and analyzing patient or health services outcomes • Products, patents, license copyrights • Peer reviews of practice • Grant awards in support of practice • Reports of meta-analyses related to practice problems • Reports of clinical demonstration projects • Policy papers related to practice	• Formal documentation of a record of the activity and positive formal evaluation by users of the work • Bibliographic citation of the accomplishments • Positive external evaluation of the body of work • Documentation of role in multi-authored products

(*Continued*)

(*cont'd*)

Type of Scholarship	Examples	Demonstration of Scholarship	Documentation
Scholarship of Teaching and Learning Contributes to the development of critically reflect knowledge about teaching and learning	• Application of knowledge of the discipline or specialty applied in teaching–learning in the academic and/or fieldwork setting • Development of innovative teaching and evaluation methods • Program development and learning outcome evaluation of academic and/or fieldwork education • Professional role modeling	• Peer-reviewed publications of research related to teaching methodology or learning outcomes, case studies related to teaching–learning, learning theory development, and development or testing of educational models or theories • Educational effectiveness studies such as those found in comprehensive programs reports • Successful applications of technology to teaching and learning • Positive peer evaluations of innovations in teaching • Published textbooks or other learning aids • Grant awards in support of teaching and learning • Peer-reviewed/invited professional presentations related to teaching and learning	• Bibliographic citation of the accomplishments • Positive external evaluation of the body of work

Note. Adapted from http://www.clt.uts.edu.au/Scholarship/A.Model.html, http://aacn.nche.edu/Publications/positions/scholar.htm, and http://www.apta.org/AM/Template.cfm?Section=CAPTE3&Template=/CM/ContentDisplay.cfm&ContentID=23140