

Aging research and design thinking: How interdisciplinary collaboration and stakeholder engagement can drive trainees' research impact

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Introduction

Aging research presents complex problems that may be approached and solved using interdisciplinary and design thinking approaches.

Design thinking can be conceptualized as a method for innovative thinking that considers the intersection of need, possibility and opportunity (Mahler & Fleisig, 2017).



Interdisciplinarity facilitates design thinking approaches to research because different disciplines represent various phases of problem solving (Patocs et al, 2018).

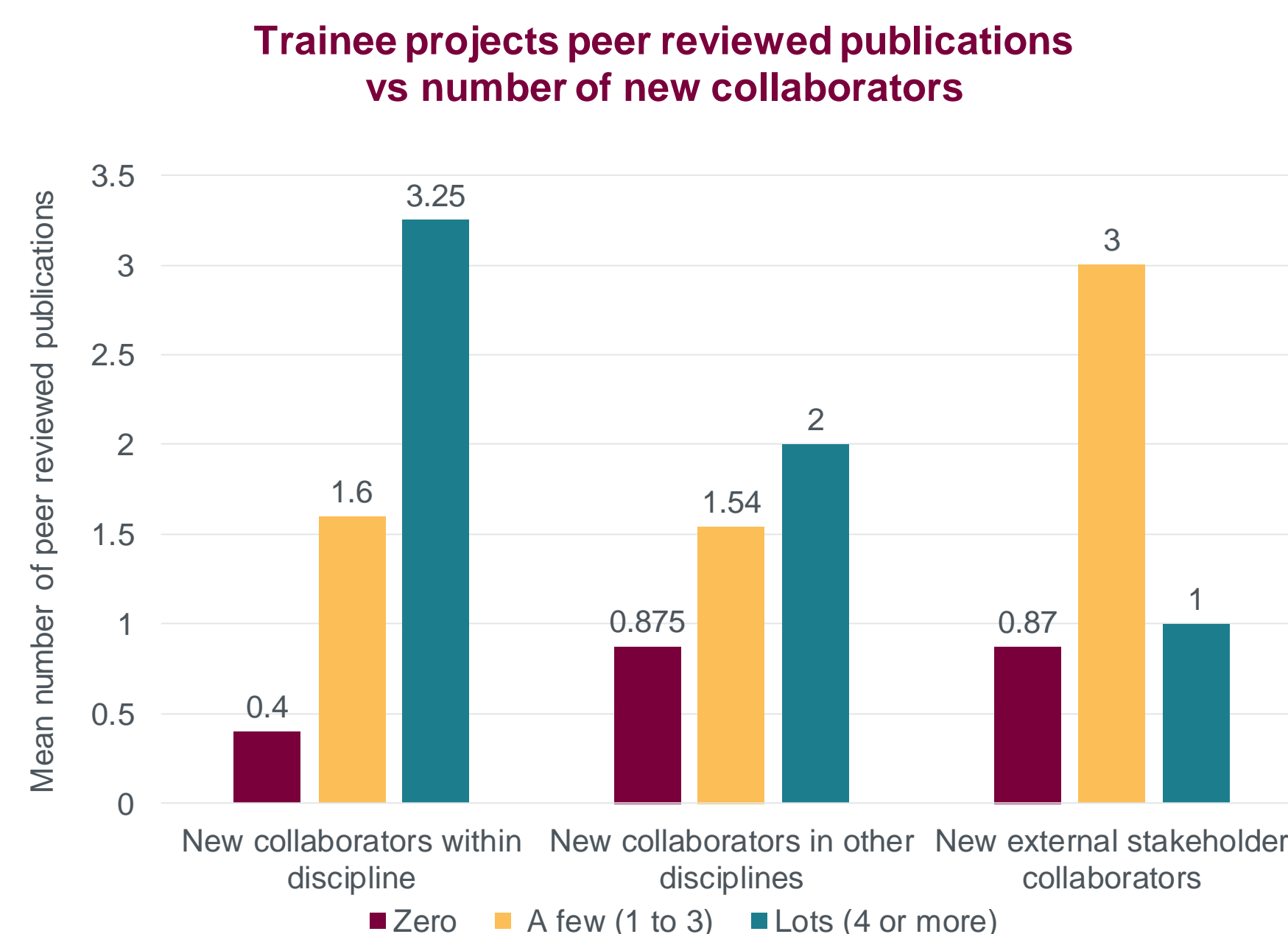
Trainees in aging research report increased subjective benefits associated with interdisciplinary research. This analysis considers objective and qualitative measurements of research impact.

Subjects and Methods

23 trainees (master's and Ph.D. students and postdoctoral fellows) who received funding and in-kind support from the **McMaster Institute for Research on Aging** between 2017-2021 were surveyed about their interdisciplinary engagement and research impact.

Trainee respondents answered survey questions about design thinking approaches to their research, including interdisciplinary collaborations, engagement with older adults, caregivers and other stakeholders, and the impact of these interactions.

Respondents reported their total number of new collaborations (mean 4.7, see graph below), describing those **within their discipline**, **outside of their discipline**, or **with external partners** (including community, industry and health care).



Results

Trainees whose funded research involved more new collaborators, both within and outside of their discipline – reported more publications associated with their research.

Trainees also reported qualitative changes to their projects and training experiences:

“Input from the new connections has made the methodology and the goals **more realistic** and yet **more meaningful**.”
Postdoctoral fellow, Department of Surgery

“Collaboration with the McMaster Institute for Transportation and Logistics meant a **new side project** analyzing older adults' responses to a travel survey.”
Postdoctoral fellow, School of Earth, Environment & Society

“ [The project] allowed me to gain exposure to learn from an interdisciplinary team that has **enriched my master's training** and galvanized my pursuit of a Ph.D.”
Master's student, Kinesiology

“ A strong partnership with the YMCA **provided the infrastructure and access** to physical space and instructors already equipped to provide our programming tailored to the needs of older adults.”
Postdoctoral fellow, Department of Medicine

Conclusions

In this sample, trainees who engaged in greater interdisciplinary and stakeholder engagement had **greater research impact**, as measured by traditional academic metrics and more nuanced assessment of knowledge mobilization and implementation.

Trainees described meaningful changes to their **research experiences and relationships**, which they attributed to their new collaborations.

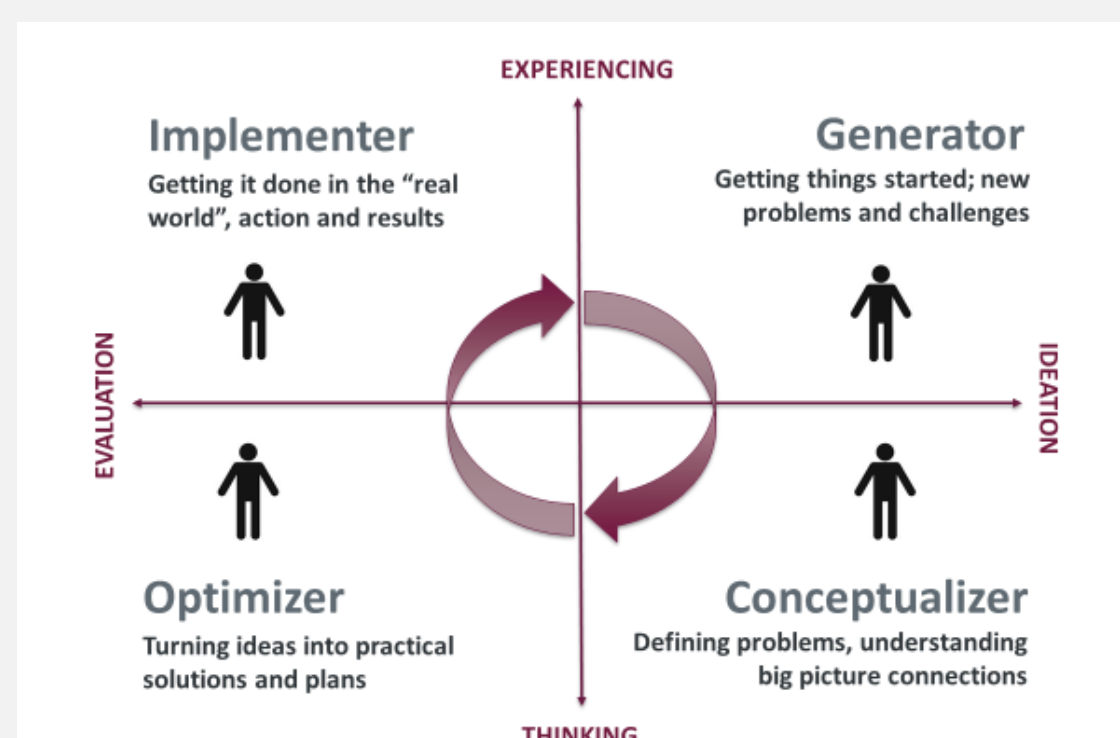
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