Growing the Learning Sciences: Brand or Big Tent? Implications for Graduate Education

Mitchell J. Nathan, University of Wisconsin-Madison, USA, mnathan@wisc.edu
Nikol Rummel, Ruhr-Universität Bochum, Germany, rummel@psychologie.uni-freiburg.de
Kenneth E. Hay, Indiana University, Bloomington, IN, USA, kehay@indiana.edu

Abstract: As the field of Learning Sciences matures and newly formed graduate programs self-identify as LS, several questions take on importance: Does LS have a common core? Should it? What are the ramifications for LS graduate programs? Participants will review common and varied approaches to LS graduate education from existing programs and explore the tensions within interdisciplinary education and trade-offs between adherence to a common core (maintaining an LS "brand") or a broadly inclusive model ("big tent").

Introduction

Learning Sciences (LS) as a field grew out of a realization that the study of learning and behavior in complex settings demanded powerful new methodological approaches and theories. Several major themes have contributed to its current form. First, LS followed the lead of Cognitive Science toward an "object of study" (learning instead of a focus on mind) and welcomed all scholars that engaged the principle study of the object regardless of their discipline. Second, scholarship in LS questions the binary opposition implicit in the modern research university between research (creating foundational knowledge) and practice (applying knowledge to practical problems). LS goals are more akin to "use-inspired basic research" that occupies Pasteur's Quadrant (Stokes, 1997), leading to both scholarly contributions and practical impact. Third, dissatisfied with "toy problems" and the observation that the social and physical worlds were being ignored (Kolodner, 1991), LS embraced the importance of investigating complex interventions using a variety of analytical and design-based research methods. Fourth, LS researchers embraced Simon's (1996) notion of the "synthetic sciences" in ways that led to a focus on the "science of possibilities" and R&D for creating new "realities" through technology. LS contributes to our understanding of learning and also develops the future in learning environments. In this sense LS is at its core revolutionary instead of evolutionary.

In one account of this broad and evolving agenda (Nathan & Alibali, in press) research in LS is often conducted at the level of complexity for which application is ultimately intended. Impact is paramount and can drive the research questions and the methods for accumulating knowledge. We frame this as the systemic approach to learning research and recognize it as a complement to the elemental approach, such as control of variable studies, which has historically shaped cognitive science research. The broader LS research program ultimately seeks to incorporate both elemental and systemic perspectives in a more complete account of learning. This creates certain tensions within the field of LS as well as between LS and other closely related fields such as cognitive psychology (e.g., the *Educational Researcher* debate between Cobb, Anderson, Reder & Simon, and Greeno). These tensions, in turn, arise within research institutions and graduate programs, and influence the nature of research and graduate education, and the future of LS.

Rationale

Existing LS research centers and graduate programs address research perspectives described above in a variety of ways, but have had few if any opportunities to consider their own programs in relation to these dimensions, or to relate their own graduate programs to the theories and practices used by others. Those in nascent LS programs can benefit greatly from the thoughts, successes and failures of more established programs. Furthermore, new programs may be able to share theoretical, programmatic and institutional ideas that can help existing programs to reform and reinvigorate their programs.

LS graduate programs play a constitutive role in forming the future of LS as a field. We think it is valuable for LS educators to engage in a discussion of the theoretical assumptions underlying their research and teaching, as well as the design of the LS programs with which they are affiliated.

Goals

Our primary goal is to bring together dedicated and motivated scholars who are invested in the future of LS education to share their views, aims, approaches, successes and failures as they consider what it means to offer a graduate education in the Learning Sciences.

As we reflect on the development and widespread growth of the field of LS, several questions take on importance: Does LS have a common core? Should it? What are the ramifications for LS graduate programs? Participants will review common and varied approaches to LS graduate education from existing programs and explore the tensions within interdisciplinary education and trade-offs between adherence to a common core (maintaining an LS "brand") or a broadly inclusive model ("big tent").

The LS are interdisciplinary, including fields such as educational psychology, curriculum and instruction, cognitive science, anthropology, and computer science. Therefore we expect participants from various backgrounds to attend. This workshop is intended to particularly draw those scholars actively involved in the programming and running of LS graduate education programs, as well at to attract those considering starting new program in LS at their university or research institution.

Continuing the Conversation

Participants will convene at the 2010 meeting of the International Conference of the Learning Sciences. We intend to continue this conversation beyond the meeting and provide an online resource for posting course syllabi, reading lists and engaging in an on-going discourse on the future of LS. Interested readers can visit https://sites.google.com/site/futureofls/.

References

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