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Differing views on interdisciplinarity in the human and social sciences

A French perspective

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LABORATOIRE DE L'ÉDUCATION - LLE



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UMR 5191 - CNRS / Université Lyon 2
Interactions, Corpus, Apprentissages, Représentations

triangle
UMR 5206

Motivation

- Interdisciplinarity in human and social sciences within a project incubator for research in Education
 - Plurality and heterogeneity
 - “Real” interdisciplinarity, as defined by the CNRS ?
 - How can science that is founded on multiple disciplines be “close” or “far apart” ?



Context

- Our data is a corpus of *interdisciplinary* submitted projects
 - sociology, history, political science, educational science, and language sciences, cognitive science, psychology, computer science
 - ...target the assumptions behind researchers' presentations and evaluations of interdisciplinarity
- Hypothesis: these assumptions will not fall so clearly into disciplinary boundaries; they will differ in how they treat knowledge, more fundamentally



Objectives

- Get insight on how human and social sciences argue for and evaluate interdisciplinarity (c.f. Toolbox Dialogue Initiative)
- Use these results to give better instructions for achieving interdisciplinarity to researchers who apply for grants to our project incubator for research in Education
- Also give guidelines to reviewers for evaluating interdisciplinarity
- Argue that “real” interdisciplinarity is not a question of being “far apart” / change institutional assumptions on funding



Framework

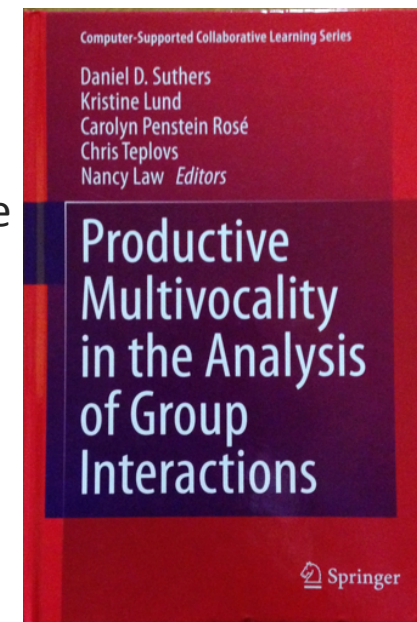
- Research is always carried out with some kind of knowledge interest in mind:
 - Technical — experimental, natural sciences that rely on formal mathematical theories
 - Transform the world
 - Practical — human and social sciences
 - construct intersubjectivity amongst stakeholders
 - Critical — psychoanalysis, criticism of ideologies
 - emancipatory position that questions domination

Habermas, J. (1973) [1968]. *La technique et la science comme « idéologie »*. Paris: Gallimard.



Framework

- Pitfalls to avoid and productive epistemological encounters
 - Share data/ a corpus
 - Perform analyses from different perspectives
 - Education, psychology, language sciences, computer science
 - Compare analyses regarding a common boundary object - the “pivotal moment”
 - Make assumptions explicit
- Blog post for I2Insights.org
 - Integration and Implementation Insights



Suthers, D. D., Lund, K., Rosé, C. P., Teplovs, C. & Law, N. (Eds.). (2013).

Productive Multivocality in the Analysis of Group Interactions. In C. Hoadley & N. Miyake (Series Eds.), *Computer Supported Collaborative Learning Series: Vol. 15*. New York: Springer.



Method

- Corpus of
 - 13 projects evaluated in March 2016
 - 19 projects evaluated in October 2016
 - Each evaluated by 2 external reviewers
- How was interdisciplinarity argued by the researchers asking for funding?
- How was interdisciplinarity evaluated by the external reviewers?
 - Grounded theory approach



Preliminary results

- ➔ Reviewers evaluated interdisciplinarity in the four possible ways

	No arguments	Justified
Positively	✓	✓
Negatively	✓	✓

Preliminary results

- Positively/negatively, but weakly justified
 - “Articulates” or does not articulate different disciplines
 - Project is at the “crossroads” of discipline X , Y, & Z
 - There is 20% of X, 15% of Y, and 20 % of Z
 - Disciplines are relevantly and equally mobilized, or they are not



Preliminary results

- Forms of integrative interdisciplinarity
 - Be specific about research questions, but in an interdisciplinary way
 - If each discipline has separate questions, how do they work towards a common objective?
 - If questions are shared, how does each discipline contribute to a particular facet of the question (e.g. different terrains?)



Preliminary results

- Forms of integrative interdisciplinarity
 - Seek to understand the different types of stakes around an action
 - Adapt the communication of results to different stakeholders
 - Instrumentalization of other researchers
 - Multidisciplinary approaches, only potentially integrative



Preliminary results

- Reviewer views and questions that merit reflection
 - Teaching X from different disciplinary views helps understand X and also gives insights to educational science
 - Disciplines W, X, Y, and Z are connected, therefore questions can be answered with different views, but in a complementary manner
 - The object of study assembles diverse knowledge, but terrains studied need to show operationalized interdisciplinary practices
 - The project is missing someone from discipline X
 - Given the nature of the project, relative to the reviewer's point of view



Conclusions

- Are the human and social sciences so different than other interdisciplinary ventures? And what about the French perspective?
- We can suggest various forms of integration to help both grant seekers in attaining interdisciplinarity and reviewers in evaluating it
- More work is needed to analyze the nature of the knowledge interest of the projects and its potential correlation with disciplines
 - In addition, there is a social division of scientific work (e.g. sociologists do categorizations) or a social division of terrains (e.g. psychologists study learning and sociologists study institutions)
- Can argue that “real” interdisciplinarity can occur between “close” disciplines
 - Measurement is affected by the vantage point from which the phenomenon under study is measured (Longino, 2013)

