Collaborative Learning in Geographically Distributed and In-person Groups

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WWW Learning
Wild Wild West Learning
Learner as Bricoleur*

* Lévi-Strauss (1966)
Too optimistic
Self-directed Autodidacts
Guidance
Where?
Student-to-Teacher Ratio
Student-to-Teacher Ratio
Student-to-Teacher Ratio
Collaborative Learning
Group Projects
Group Formation
Laissez-faire
Interventionist
How should we form and guide groups?
Geographically Distributed
Computer-mediated Communication
In-person
Face-to-Face Communication
Better experience with FtF*

* Ocker & Yaverbaum (1999)
More expressive (richer) medium
Found no learning difference*

* Ocker & Yaverbaum (1999), Francescato et al. (2006)
But wait ...
... is in-person collaboration possible?
Data from 21 MOOCs
Enough fellow learners nearby?
In-person collaboration possible?
Yes, mostly
Group’s diversity of views

more important than

Individual excellence*
Diversity in views increases with geographical distance
Assign Distributed Groups?
Major Cities
Collective Intelligence*

* Woolley et al. (2010)
Not Average or Maximum Individual Intelligence*

* Woolley et al. (2010)
Proportion of Females

Distribution of Conversational Turn-taking*

* Woolley et al. (2010)
Gender can be assigned

Conversational dynamics only influenced indirectly
Written Guidelines on turn-taking
Chess Clocks
Process indicators matter*

* Barron (2003)
Listening to proposals is predictive of collaboration success*

* Barron (2003)
But not individual’s prior achievement*

* Barron (2003)
Guide collaboration to encourage rich interactions*

* Dillenbourg et al. (2002)
E.g. note-taking templates
Guidance depends on collaboration medium
FtF more expressive than CMC
Augmented CMC
Mutual Awareness*

* Goldman et al. (2007)
Guidance on technological tools
Research Directions
Randomized Controlled Experiments
Causal effects
Independent Variables
Group Formation
Group Guidance
Perceived Assignment
(framing effect)
Dependent Variables
Performance
(grades and perceived learning)
Collaboration Quality*

* Meier et al. (2007)
Members’ Experience
Collaborated in-person?
Perceived Group Diversity

(mediator)
A potential design:
1. Small group in-person
2. Continue collaboration distributed
Empower learners to become *bricoleurs*
Thank you

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