

LEARNING ANALYTICS ADOPTION – APPROACHES AND MATURITY

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Existing studies of learning analytics (LA) adoption have shed light on policies and strategies targeted at institutional or national level of implementation (Colvin, Dawson, Wade, & Gašević, 2017). However, there is limited understanding of the change of priorities when the institution's experience with LA increases.

We ask...

1. How might adopted approaches associate with the set goals for LA?

2. Do these associations change as institutional experience with LA increase?

We collected...

- 29 semi-structured interviews
- with institutional leaders
- from 27 HEIs

Epistemic Network Analysis (ENA)

We used...

We found...

- LA is predominantly used as a **solution model** to address existing problems with institutional performance (e.g., retention and student satisfaction).
- As the experience of LA increases...there is a growing interest in using LA as an **innovation model** to enhance teaching by exploring factors of observed phenomena.

How?

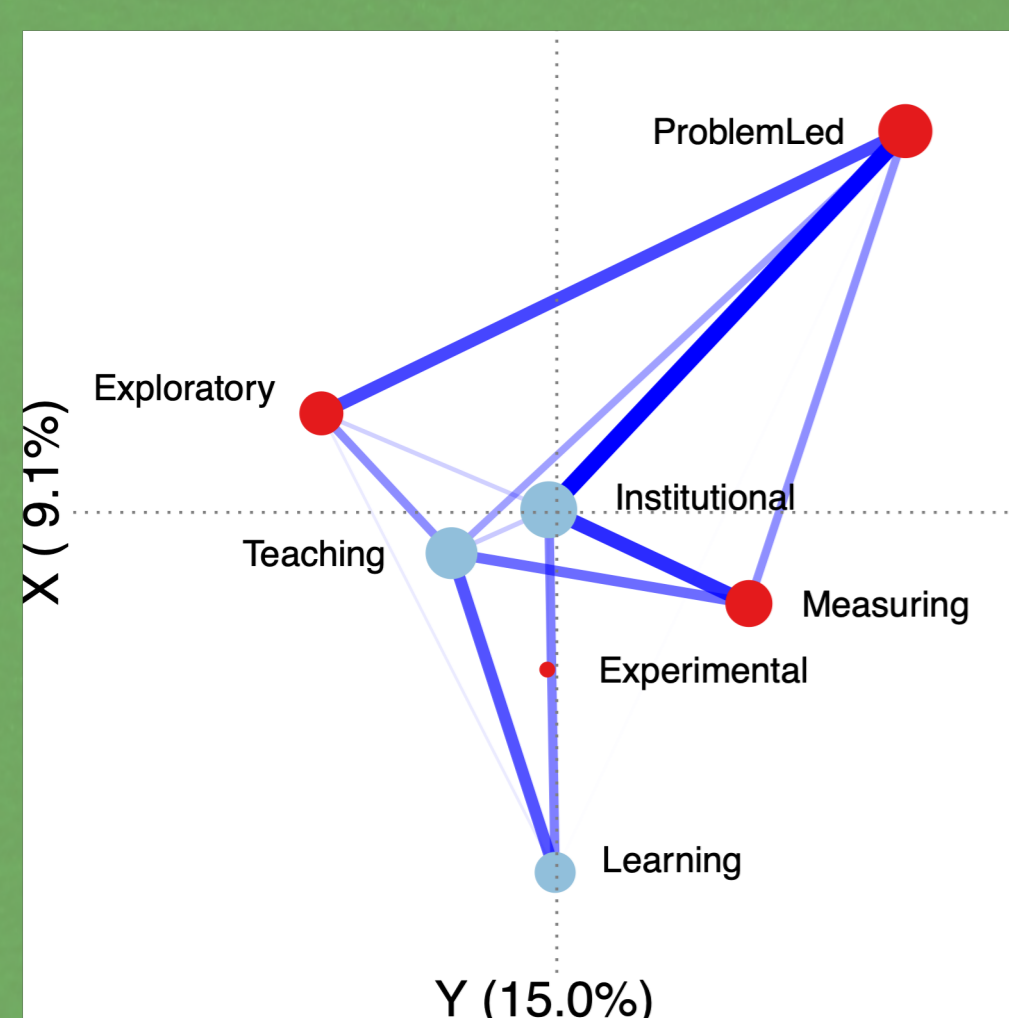
ENA computes the co-occurrence of codes (representing concepts) within a set of stanzas, which are text excerpts where co-occurrence represents a meaningful relationship for each of the units of analysis (Shaffer et al., 2009).

So we did...

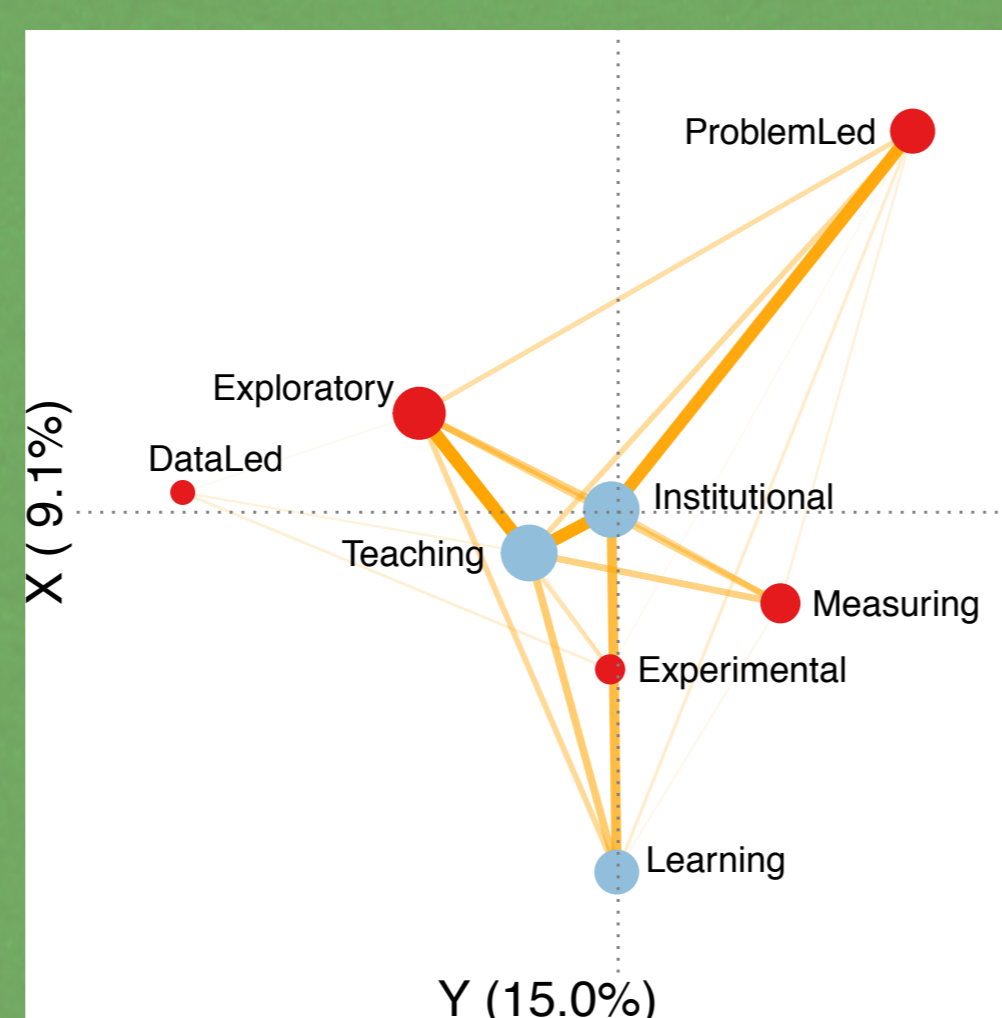
- Coded the interviews with a coding scheme made of 99 codes.
- Define each **conversational utterance** as a stanza.
- Set each **institution** as a unit of analysis.
- Grouped institutions by **experience**:
(1) less than one year of experience (n=9)
(2) one or more years of experience (n=18)

The results showed...

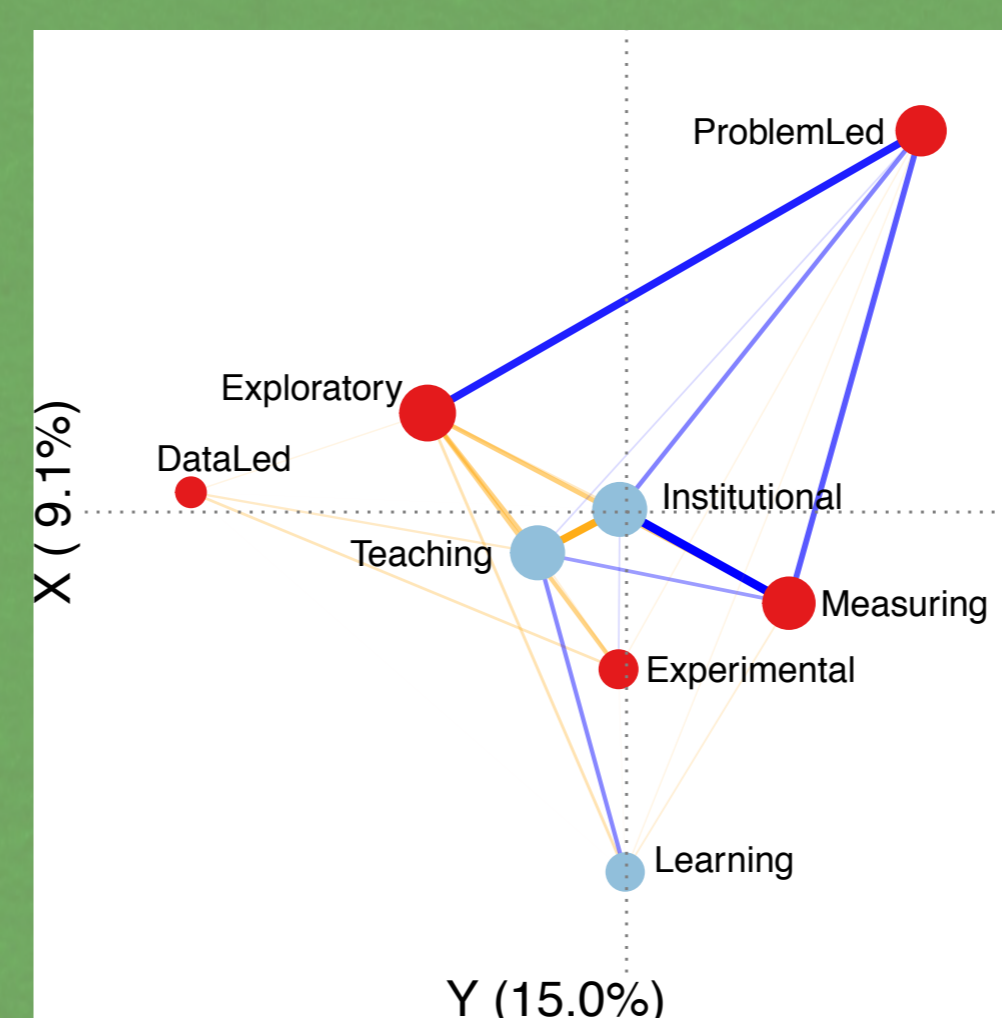
1. Strong connections between institutional goals and a problem-led approach in both groups.
2. A strong connection between institution-level goals and a measuring approach among novice institutions.
3. A strong connection between teaching-level goals and an exploratory approach among experienced institutions.



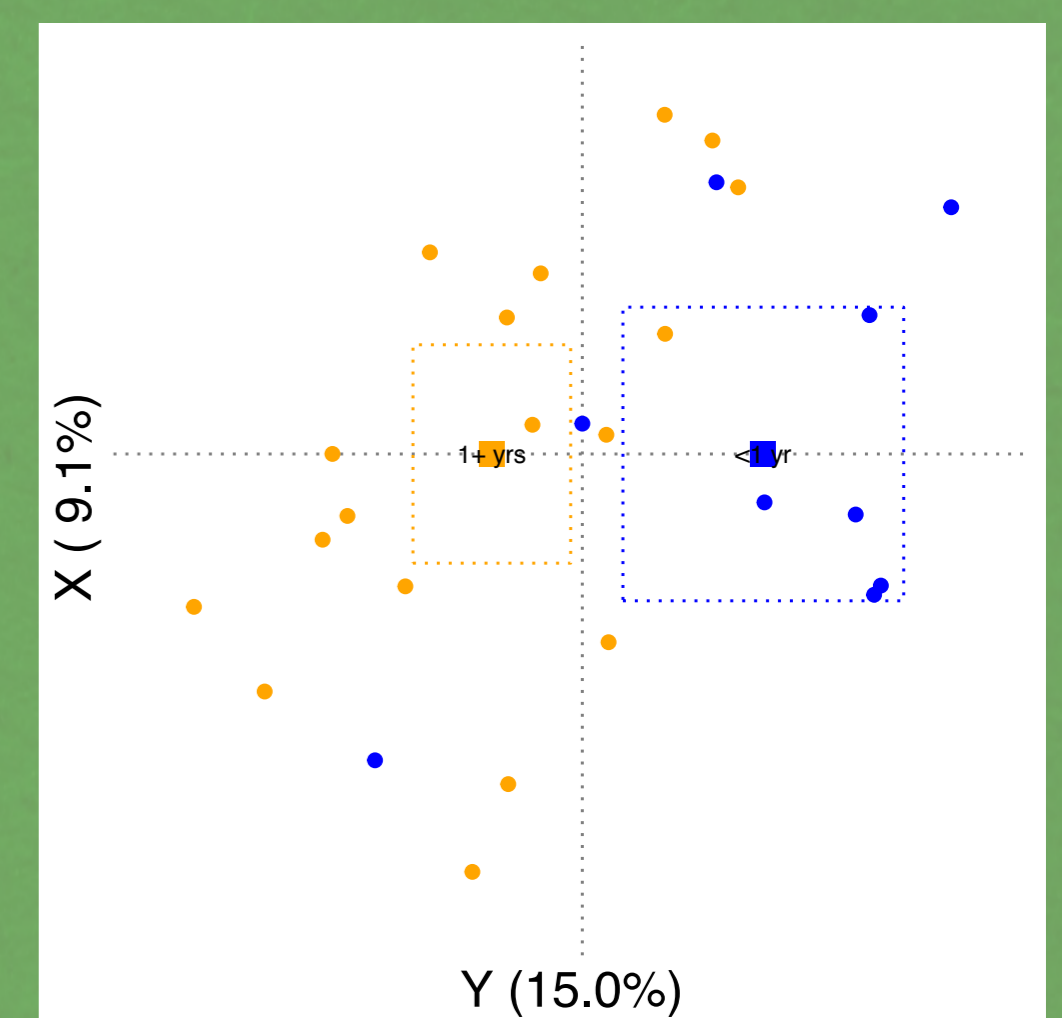
(a) The mean epistemic network of novice institutions



(b) The mean epistemic network of experienced institutions



(c) The subtracted ENA network between novice (blue lines) and experienced (orange lines) institutions



(d) Centroids of the individual epistemic network of each institution (novice institutions are in blue and experienced institutions are in orange)

We suggest...

Institutions need to adjust short-term goals to review the vision and strategy for LA as the deployment progresses.

References:

Colvin, C., Dawson, S., Wade, A., & Gašević, D. (2017). Addressing the Challenges of Institutional Adoption. In C. Lang, G. Siemens, A. Wise, & D. Gašević (Eds.), *Handbook of Learning Analytics* (First, pp. 281–289). Society for Learning Analytics Research.

Shaffer, D. W., Hatfield, D., Svarovsky, G. N., Nash, P., Nulty, A., Bagley, E., ... Mislevy, R. (2009). Epistemic Network Analysis: A Prototype for 21st-Century Assessment of Learning. *International Journal of Learning and Media*, 1(2), 33–53.