



Paired teaching for faculty professional development in teaching



Jared Stang and Linda Strubbe
Science Teaching and Learning Fellows
Department of Physics and Astronomy
University of British Columbia



jared@phas.ubc.ca
 @StangJared

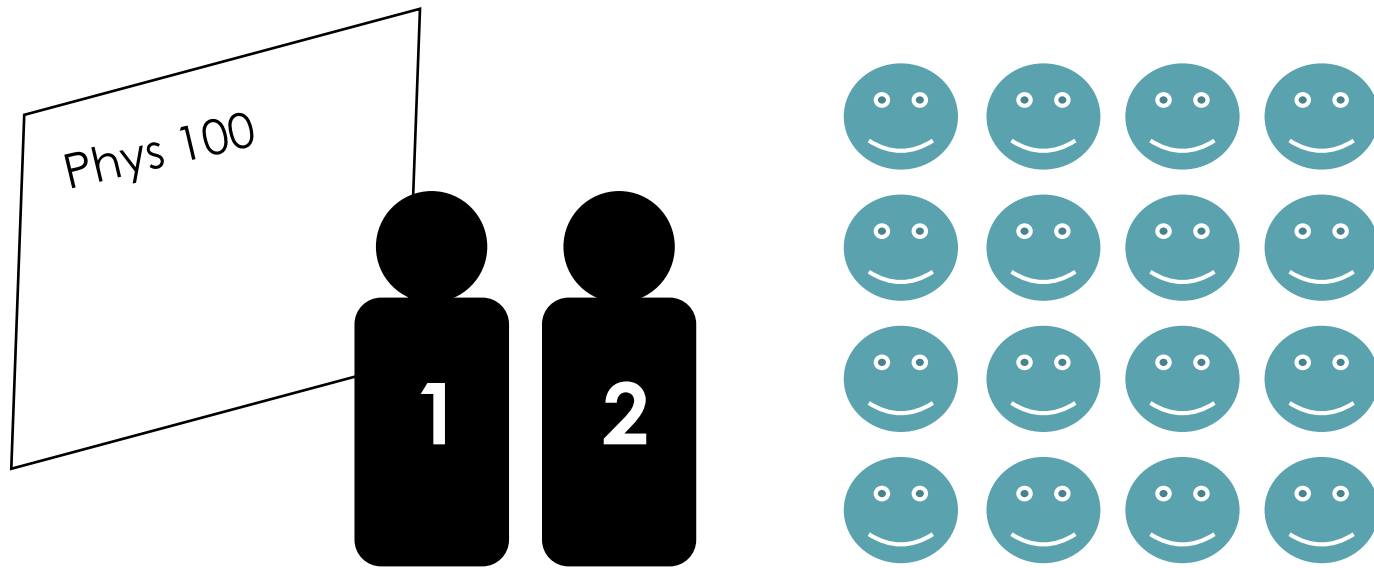
linda@phas.ubc.ca
 @linda_strubbe



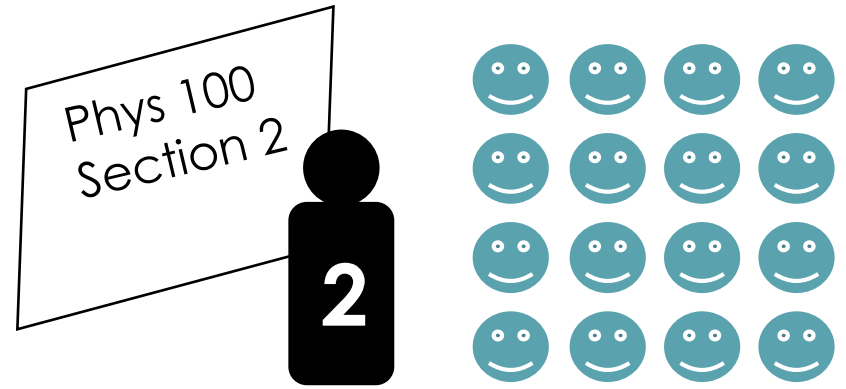
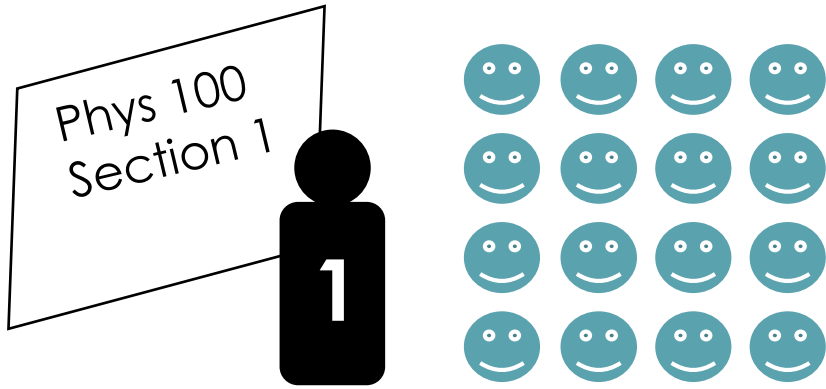
“The experience was really very important for me in order to get on my feet up and running and teaching a class like Physics 1**.

... I'd be more than positive; vital for me personally.”

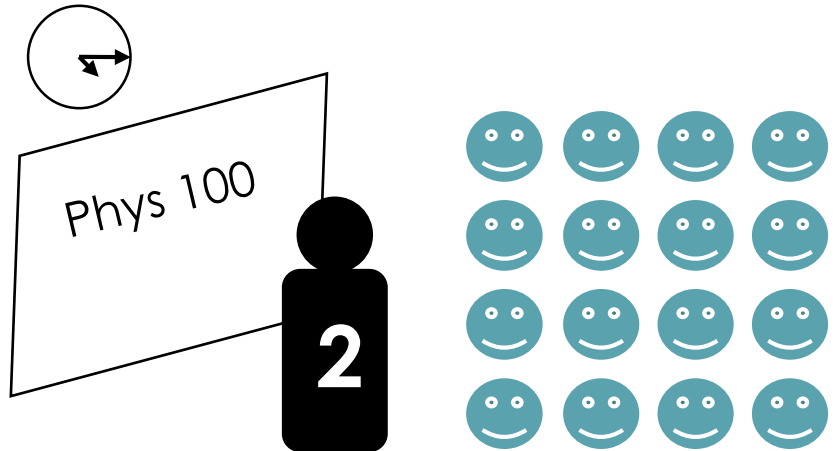
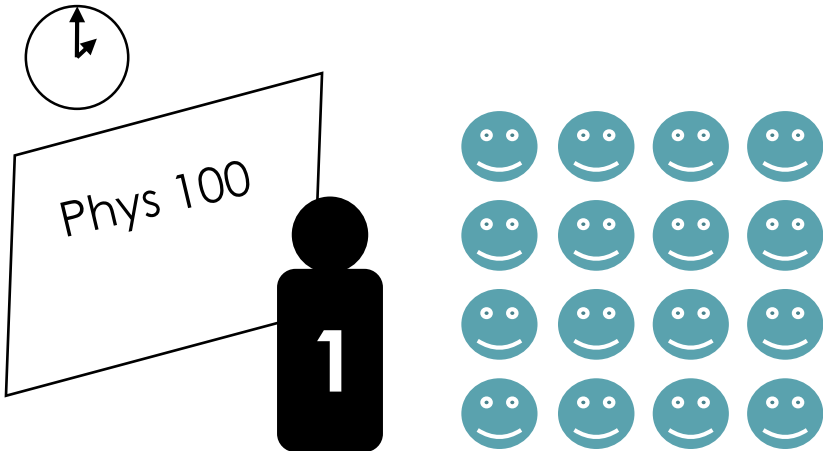
Paired (or co-) teaching



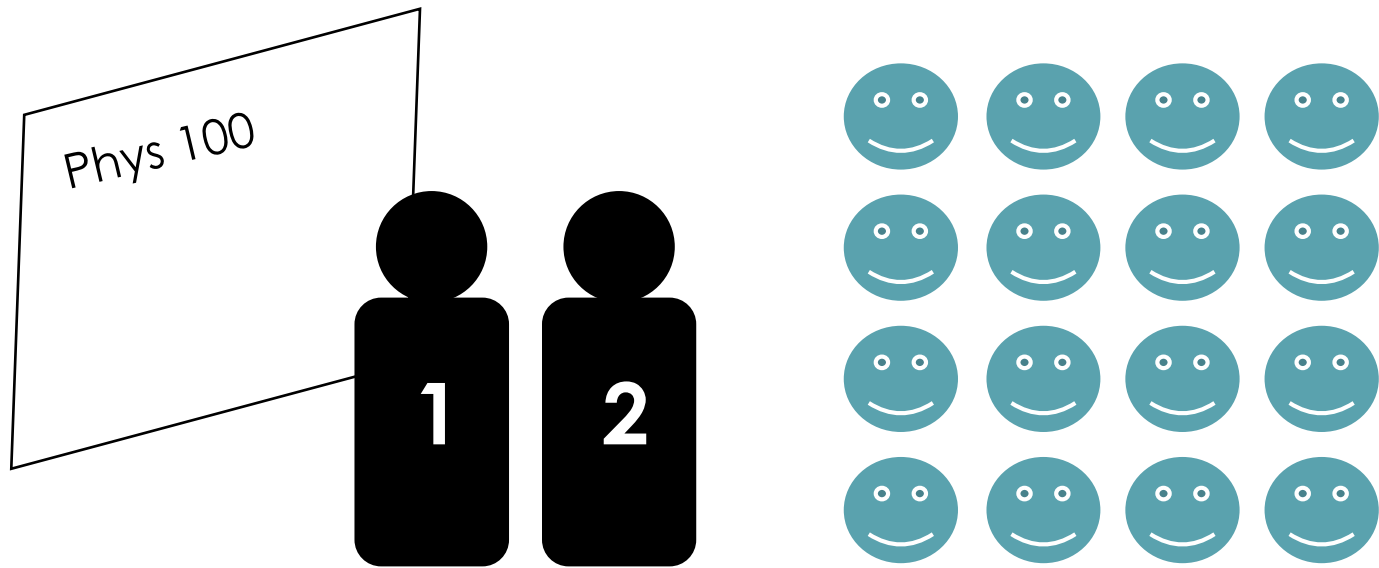
Not team teaching



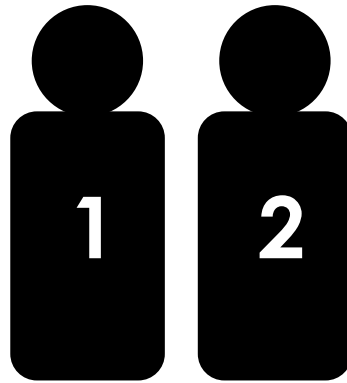
Not “serial monogamy”



Paired teaching



Paired teaching for professional development in teaching

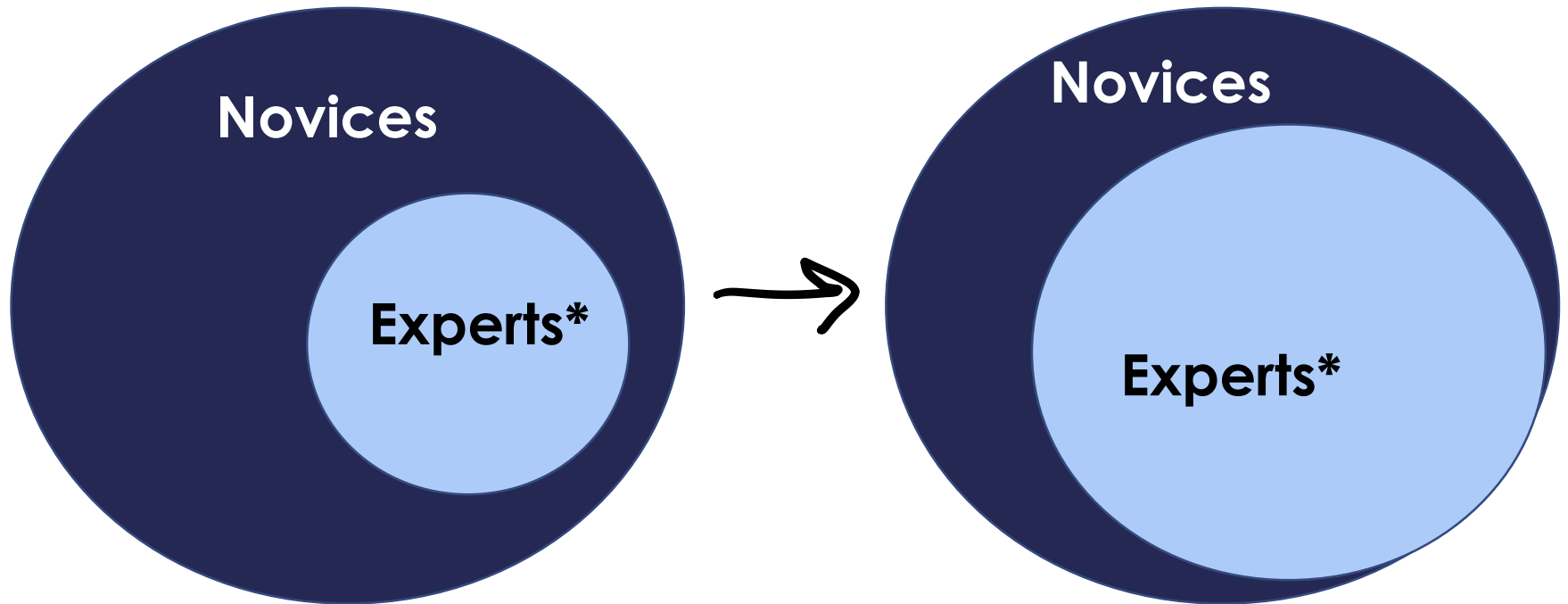


“Novice”

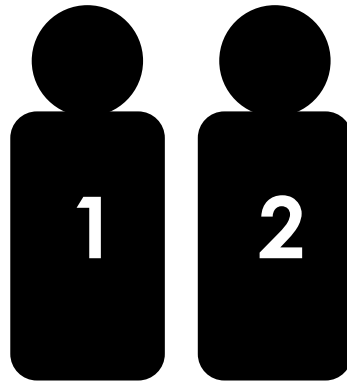
“Expert”*

*in evidence-based teaching

Our department



*in evidence-based teaching



“Novice”

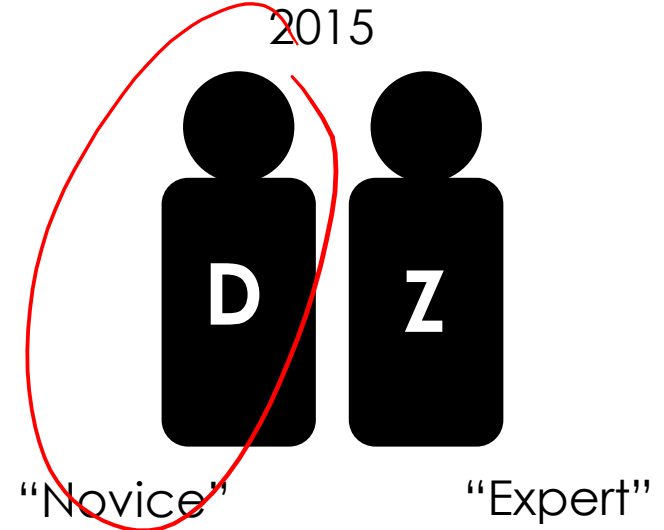
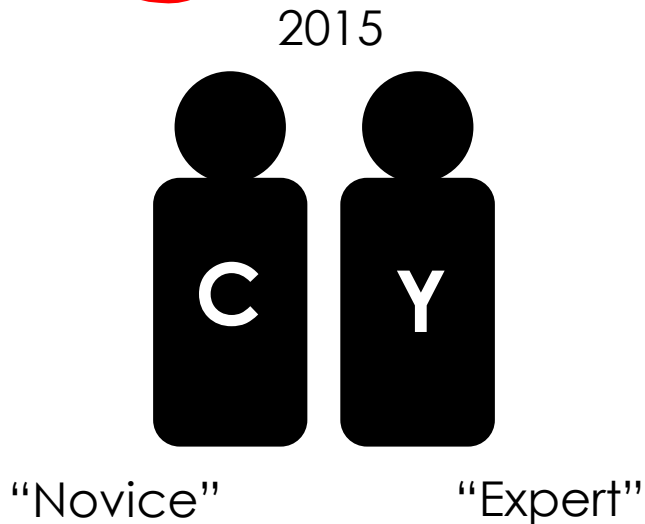
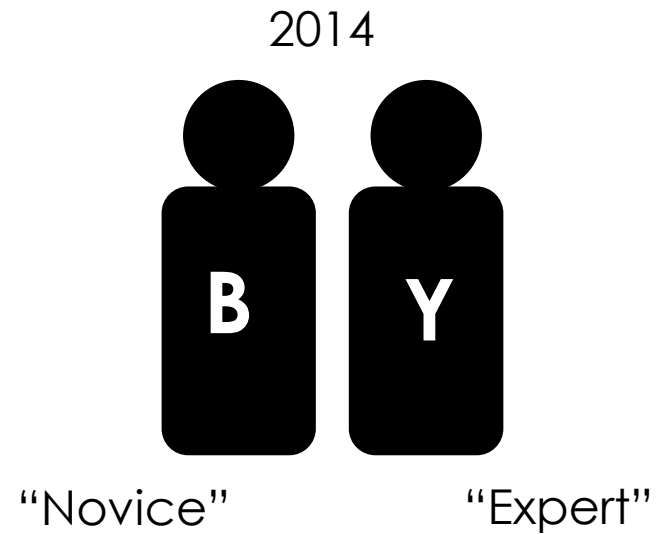
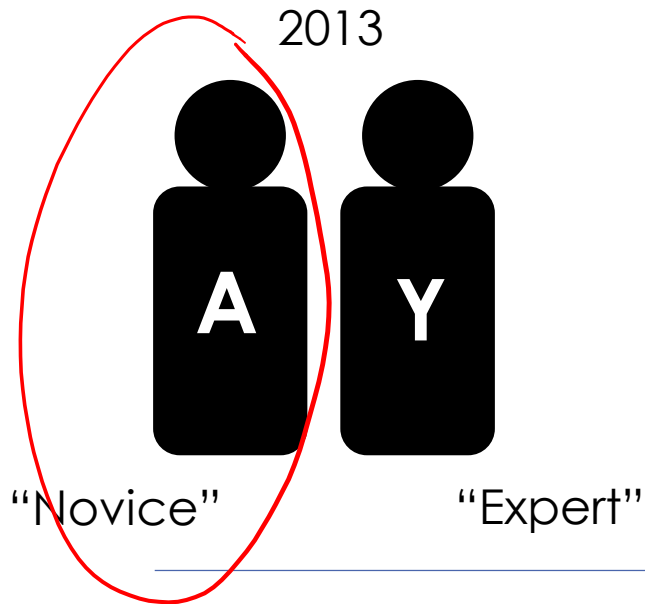
“Expert”

Research question:

What factors make for effective professional development in teaching via paired teaching?

Our data set

- Post-course interviews
- In-class observations.



Novice instructors A & D

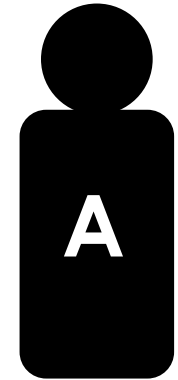


- Research stream tenure-track
- <1 year teaching prior
- No experience with research-based teaching strategies



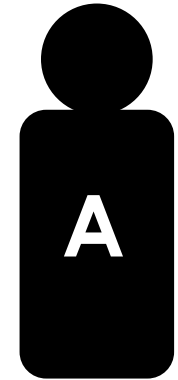
- Research stream tenured
- 10 years prior teaching at all levels
- Some previous exposure to research-based teaching strategies

Learning about teaching: Novice A



- Continued use of research-based teaching strategies
- Interest in research basis:
“I didn't really expect to be that interested in the why of the questions.”
- “Vital” to their development as an instructor.
- Developed overall confidence in teaching.

Learning about teaching: Novice A



- Continued use of research-based teaching strategies

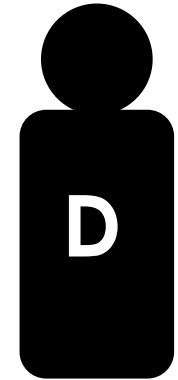
- Interested in the

Novice instructor A learned a lot.

Interested

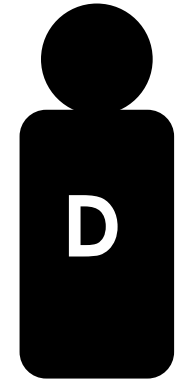
- “Vital” to their development as an instructor.
- Developed overall confidence in teaching.

Learning about teaching: Novice D



- Some changing perspective in “thinking a little bit more like a student as opposed to just thinking like a lecturer.”
- Some reservations about the lack of content covered.
- Conflated active techniques with easiness: “I'd still like to learn... the blending of slightly more challenging aspects with still this way of being very interactive.”

Learning about teaching: Novice D



- Some changing perspective in “thinking a little bit more like a student as opposed to just thinking like a lecturer.”

Outcomes not so good for novice instructor D.

- Conflated active techniques with easiness: “I'd still like to learn... the blending of slightly more challenging aspects with still this way of being very interactive.”

Factors that influence faculty learning about teaching

1. Approach of the novice instructor.



Intention to learn “tried and tested” methods.



Focused on current in-class product and not professional development.

2. Course context and structure.



- Multiple sections and instructors.
- Structure and materials established.
- Course history of using active learning techniques.



3. Teaching assignment sequence.



Taught the same course individually in next two years.



Will teach the same course individually next year.

Conclusion

Paired teaching **can** promote faculty professional development in teaching.

But it depends.

See also:

1. C. Henderson, A. Beach, and M. Famiano, *American Journal of Physics* **77**, 274 (2009)
2. Our poster at PERC:
P2-25, Thursday 8:30am.

jared@phas.ubc.ca
 @StangJared

Funded by: John and Deb Harris, the UBC Faculty of Science, and the UBC Department of Physics and Astronomy.

Thanks to: the UBC CWSEI community and the PHASER group at UBC.

