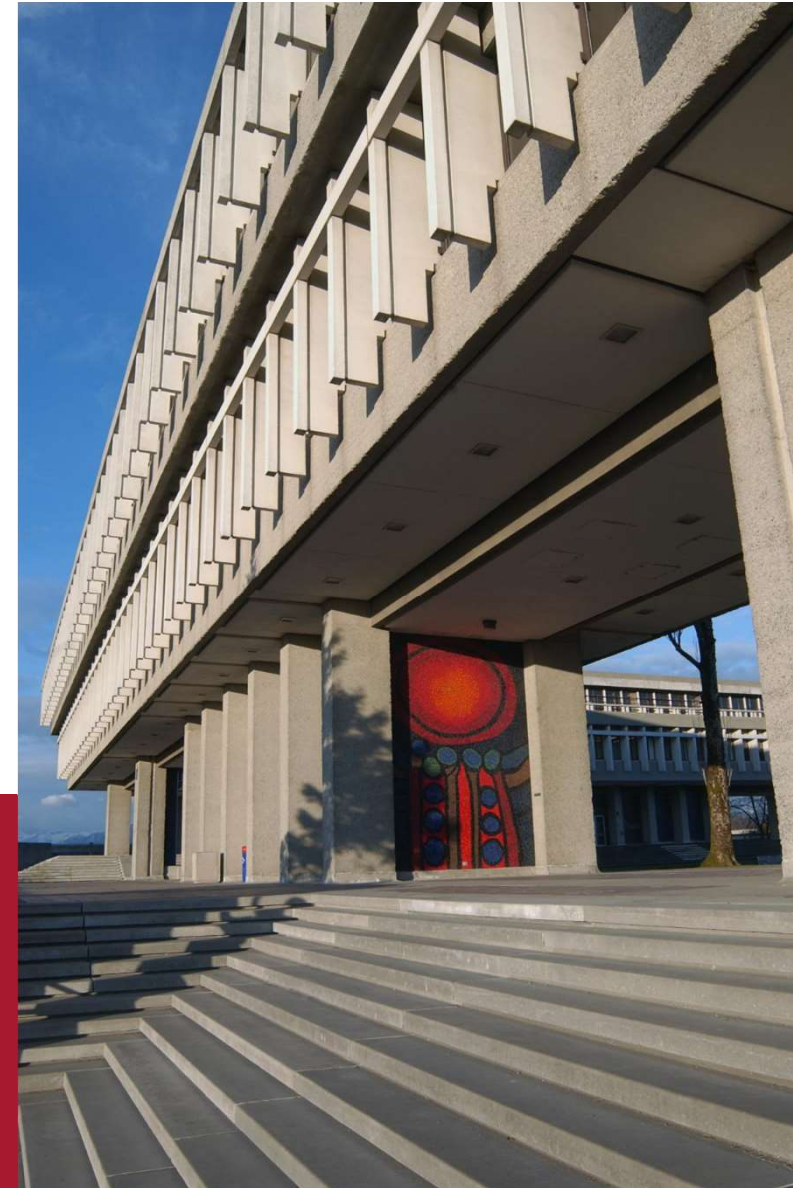


**SFU**

**SIMON FRASER UNIVERSITY**  
ENGAGING THE WORLD

# **First-person vicarious experiences as a mechanism for belief change**

Annette Rouleau – CERME 11 – February 6 – 10, 2019



# First-person vicarious experiences as a mechanism for belief change

Annette Rouleau, Natalia Ruiz,  
Cristián Reyes, and Peter Liljedahl



## Beliefs

Changeable truths that must be inferred  
from what one says and does.

(Green, 1971; Leatham, 2006)



Writing...



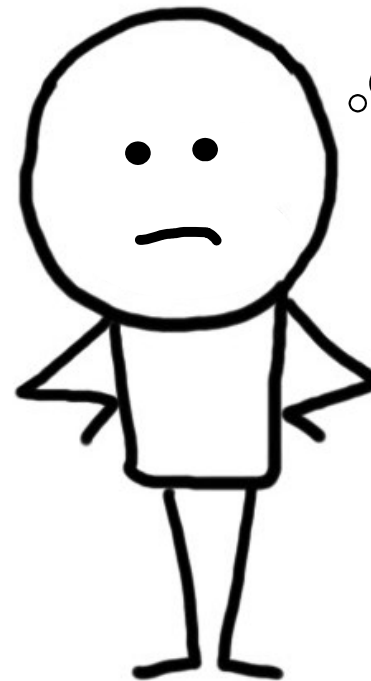
...is...



...hard.



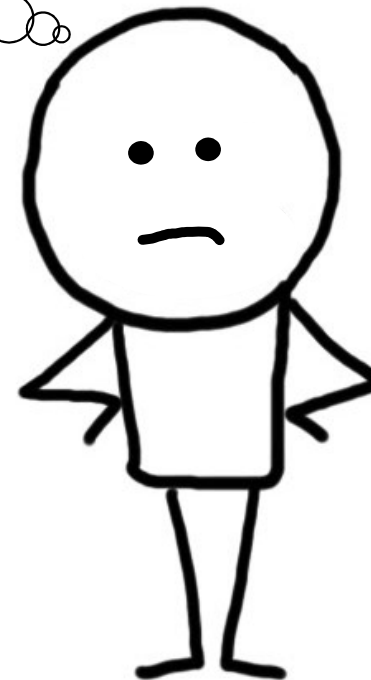
You're  
struggling  
with inner  
speech.



Try talking  
out loud  
as you  
write.



That will  
never work  
for me.



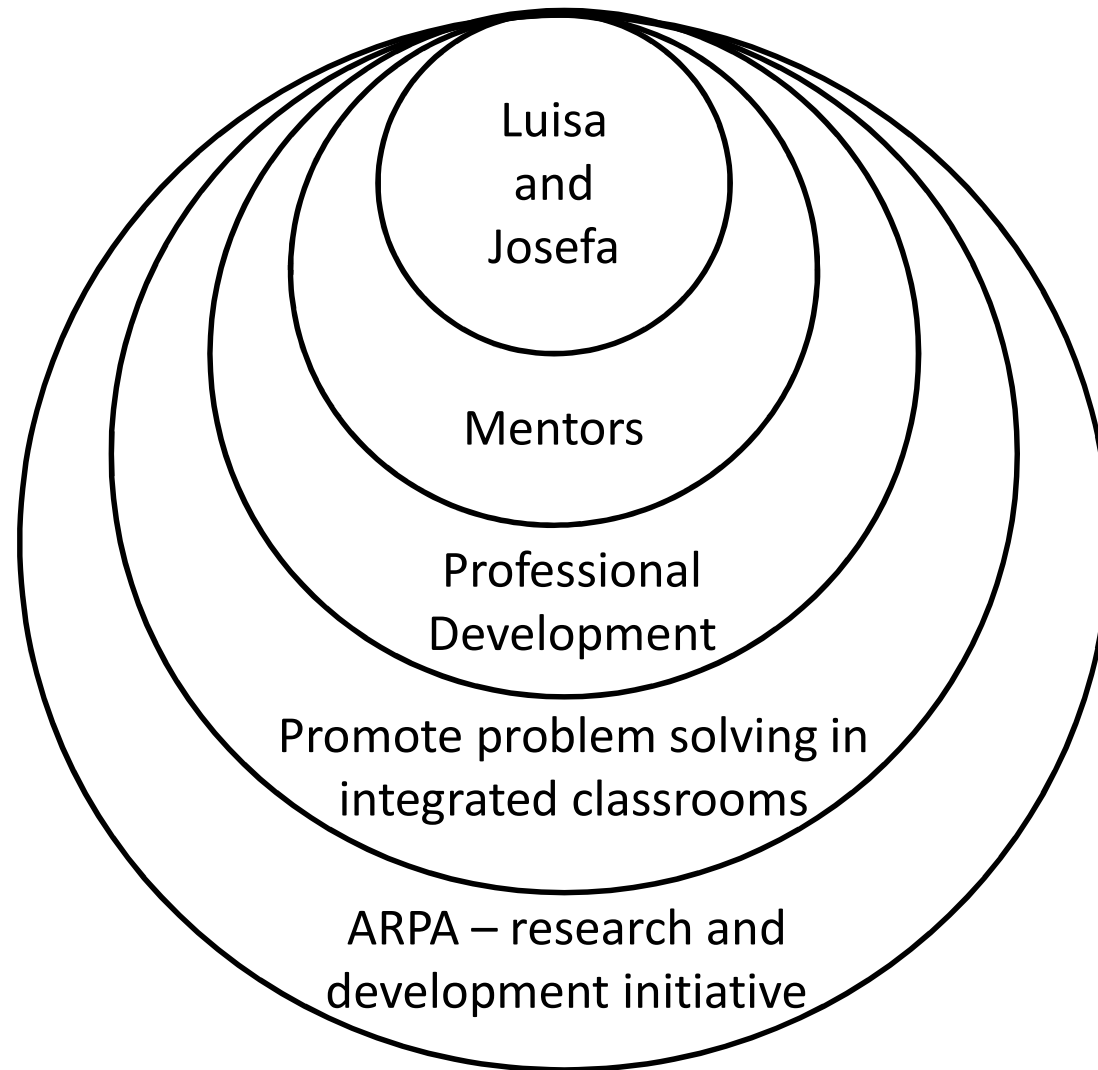
Okay, if  
you say so.

I was asked to implement a practice which I had **no personal certainty** would work, and it changed my belief about the practice.

First-person vicarious experience

Liljedahl (2016)

Some Context

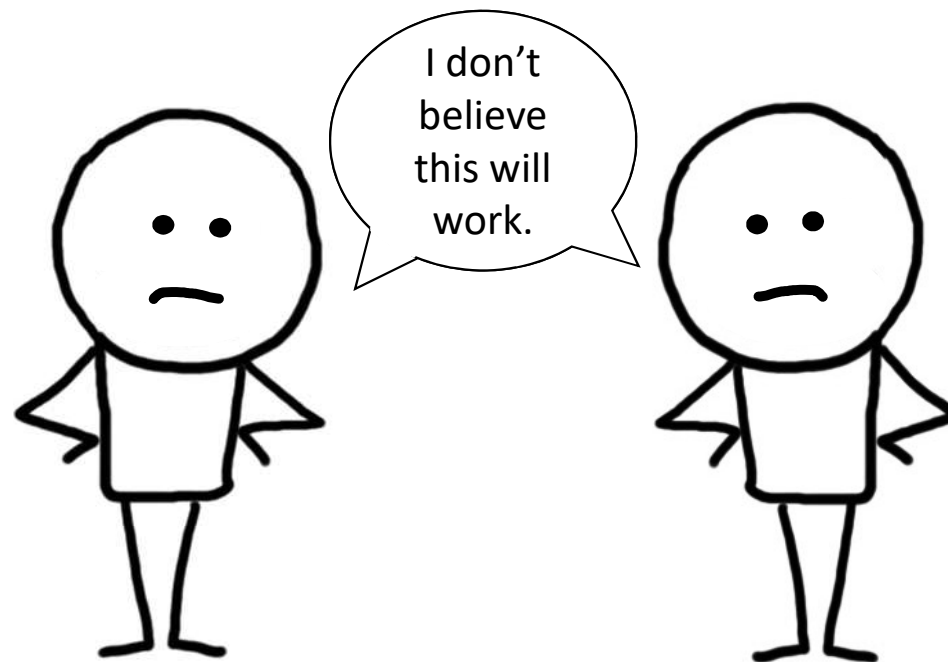




Teachers - Luisa and Josefa

Work collaboratively in **visibly random groups** with other teachers on **non-routine problems**.

Implement those same elements in their classrooms with **all** their students.



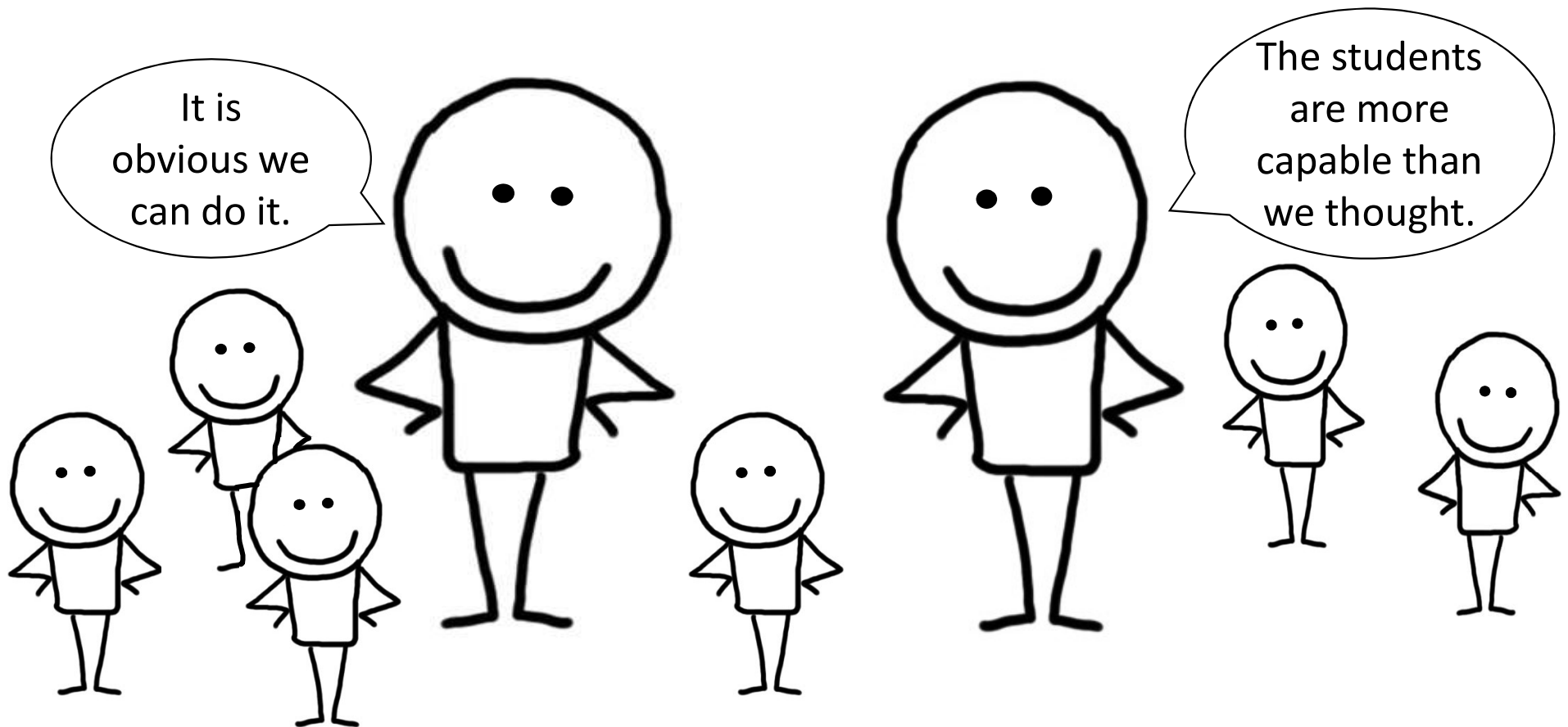
**Luisa and Josefa held the belief that integration only worked in theory, and that they were not capable of actually enacting it in their classroom:**

Josefa: ***There is this integration and diversity discourse, theoretical stuff, but how do we face it?** There is a lot of talk about how everybody is different, that we must work with our diversity, but what I used to do was to bring the girls [with special education needs] to the resources classroom. I'd take them out of the classroom and give them their individual material, that I created and used.*

**Related to this was their belief that low-performing students would not be successful working on non-routine problems:**

Luisa: *Well, one of the things that caught our attention was that when Josefa and I started working with ARPA, the mentor would always tell us: **"Those kids who say they have more difficulties are the first to solve the problems"**. And we were like: **"Yeah, right"**.*

These beliefs changed after they implemented the required changes in their practice and saw success in their students.





Significant change in teachers' beliefs occurs primarily after they gain evidence of improvement in student learning.

(Guskey, 1986)



Significant change in teachers' beliefs occurs primarily after they gain evidence of improvement in student learning.

(Guskey, 1986)

***Belief change is gradual and difficult with new practices requiring slow implementation.***

- **No gradual assimilation**—they were required to implement visibly random groupings and non-routine problems, even if they were uncertain about the effectiveness of the practices.
- **Given personal assurances** that it would work from their ARPA mentors, but they were not given time to assimilate the practices into their own schemas.
- **Experienced the changes themselves** as learners in the ARPA sessions and then been required to implement the new practice.

They had undergone a first-person vicarious experience.

- They are first person because they are living the lesson and observing the results created by their own hands.
- But the methods are not their own.

*“As such they had experienced a different way in which their classroom could look and how their students could behave.”*

(Liljedahl, 2016)



Leatham (2006) reminds us that “The challenge for teacher education is not merely to influence *what* teachers believe—it is to **influence *how* they believe it**”.

Our findings suggest that first-person vicarious experiences influence the *how*—**the teachers now believe it experientially**, which we argue, motivated the belief change.

Additionally, the professional development aspect is vital as **our participants needed to feel or see the changes themselves before their beliefs changed**. They still had no certainty it would work in a different context, but they had experienced first-hand that it could.

## Discussion

- All the important bits I left out!
- The *how* of belief changes
- First person vicarious experiences – thoughts, connections