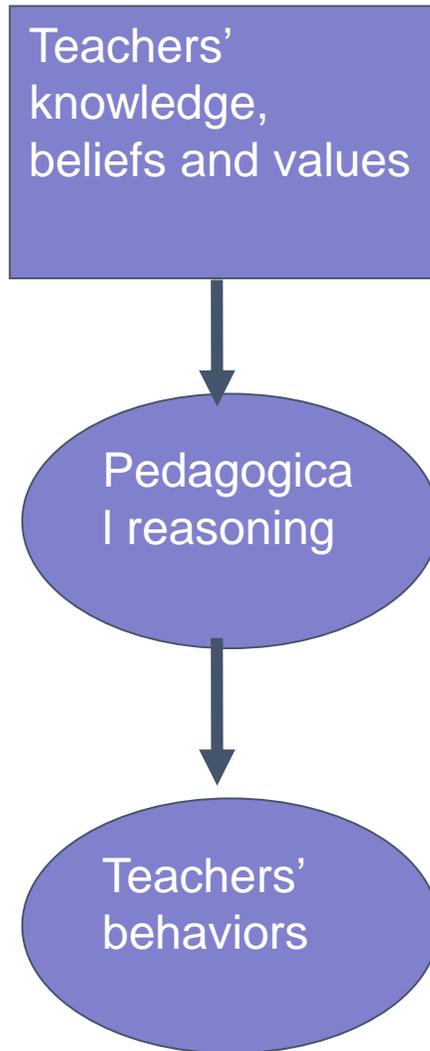


SCID 520

Pedagogy and Innovation in Science Education

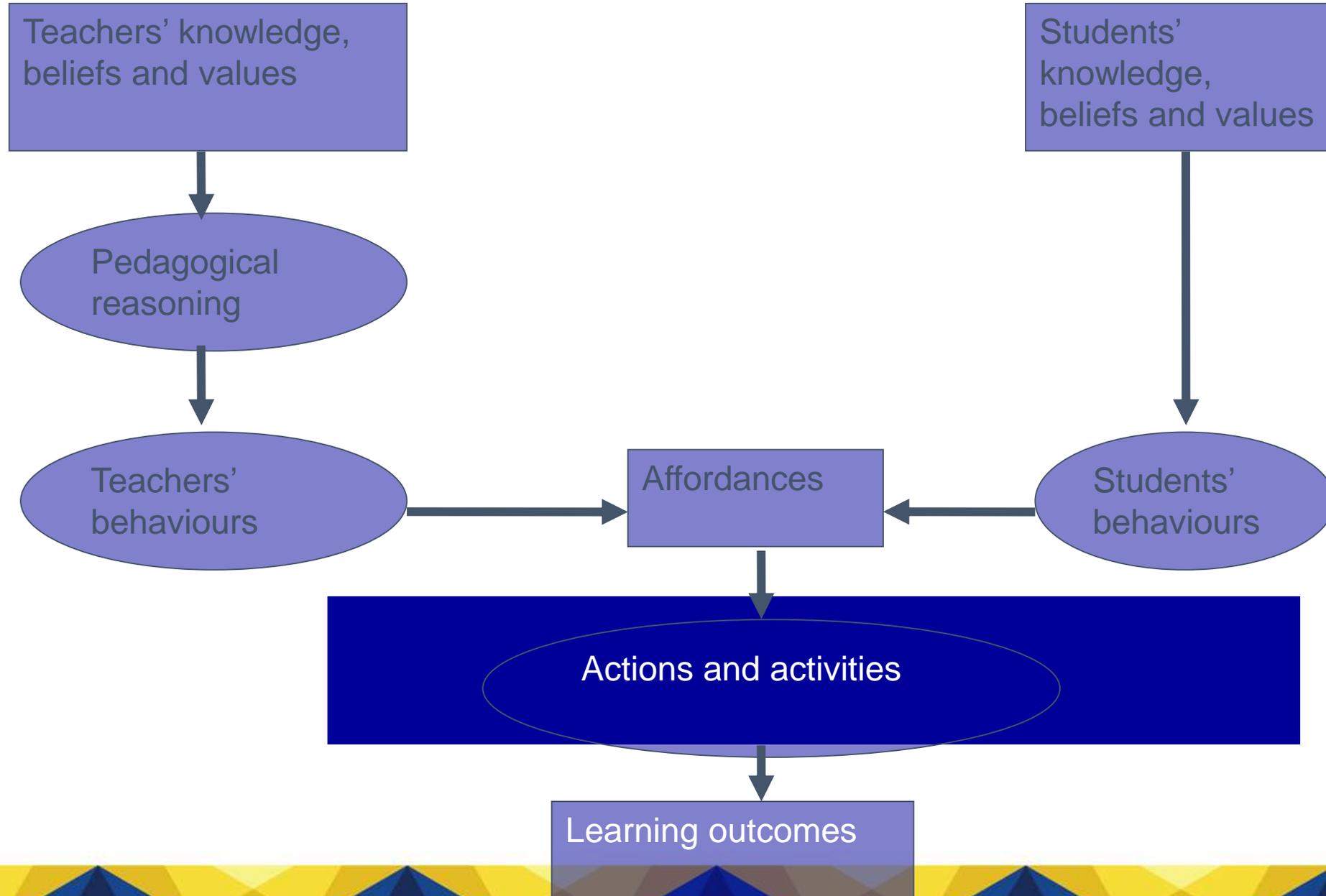
What is pedagogy?

- “the science of teaching” (Oxford English Dictionary).
- teaching methods and pupil organisation within a framework for educational practice (Alexander, 1992).
- conceptions of pedagogy held by academics have become more complex over time
 - knowledge more differentiated and more integrated
- developments in our understanding of cognition and meta-cognition
Watkins and Mortimore (1999)
 - Shulman’s model of pedagogical reasoning focuses on the processes involved in teaching including the transformation of knowledge so that it can be taught
(Shulman, 1987)



Teachers' ideas, beliefs and values influence practice (Fang, 1996, Moseley et al., 1999).

- Planning, teaching, assessing, evaluating
- Transformation of knowledge
 - Planning
 - Teaching
- Pedagogical concepts are interpreted in a subject-specific manner. (Bromme, 1995)





"INSANITY
IS DOING THE
SAME THING OVER
AND OVER AND
EXPECTING A
DIFFERENT RESULT."

--ALBERT EINSTEIN

