Laurillard's 12 mathemagenic activities

Conceptual description

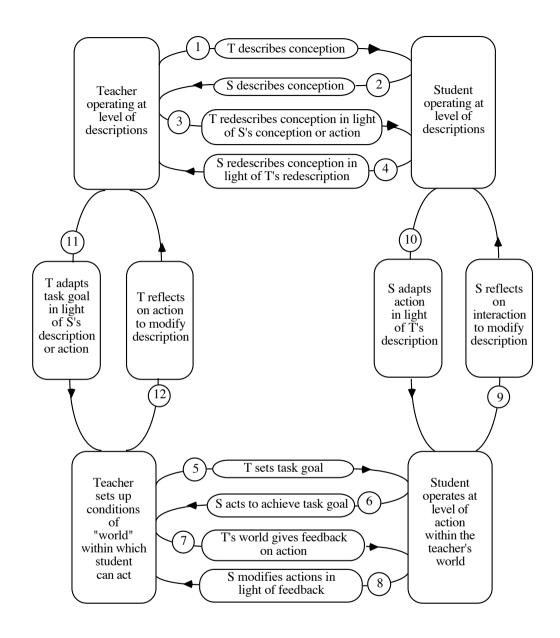
- 1. Teacher describes the conception.
- 2. Student re-expresses the conception.
- 3. Teacher redescribes the conception in the light of the student's expression or action.
- 4. Student redescribes the conception in the light of the teacher's redescription.

Personal experience / action

- 5. Teacher sets task goal.
- 6. Student acts to achieve the task goal.
- 7. Teacher's world gives feedback on the action.
- 8. Student modifies actions in the light of feedback.

<u>Reflection</u>: (linking description and experience)

- 9. Student reflects on action to modify description.
- 10. Student adapts action in light of concept.
- 11. Teacher adapts task goal in light of student's description.
- 12. Teacher reflects on action to modify description.



Laurillard's diagram of 12 activities for teaching and learning.

It is redrawn with the numbers modified from fig.II.1, p.103, in Laurillard, D. (1993) **Rethinking university teaching:** A framework for the effective use of educational technology (Routledge: London).