ETEN
European Teacher Education Network

STEM
experience for pre-service students

Unai Carmona Igartua
Naroa Elortegi Garcia
Ainara Bilbao Eraña

Mondragon Unibertsitatea
Humanitate eta Hezkuntza Zientzien Fakultatea
Faculty of Humanities and Education Sciences

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Mondragon Unibertsitatea

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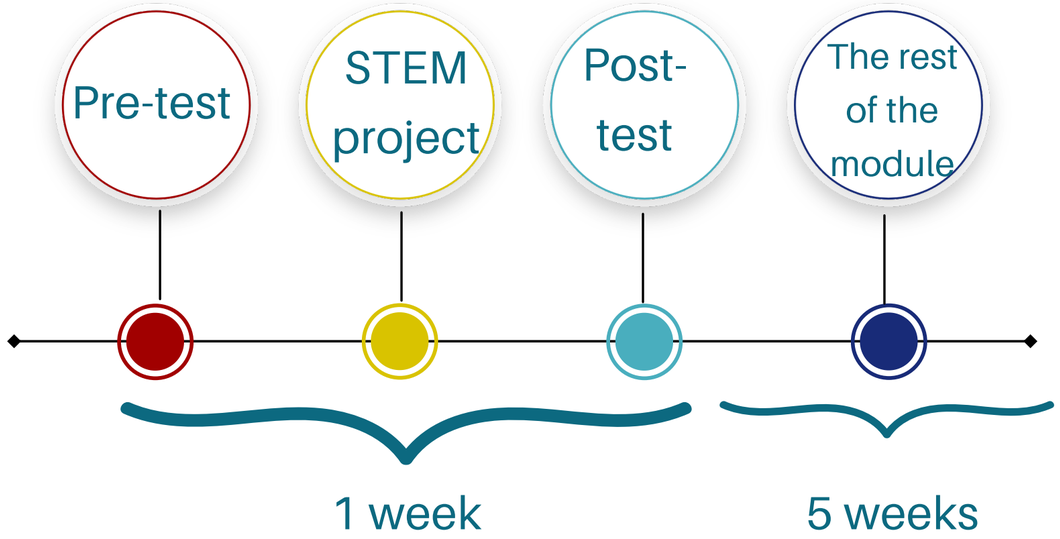

STEM and Deeper Learning module

Primary Education Degree

2nd grade

6 weeks module

140 students

Pre-test

Questionnaire:

- 4 point Likert scale (1-4)
- 3 sections:
  - General questions:
    - age, gender, previous studies and selected degree mention
  - Perception of science and technology studied at school
  - Self-perceived ability to teach science and technology

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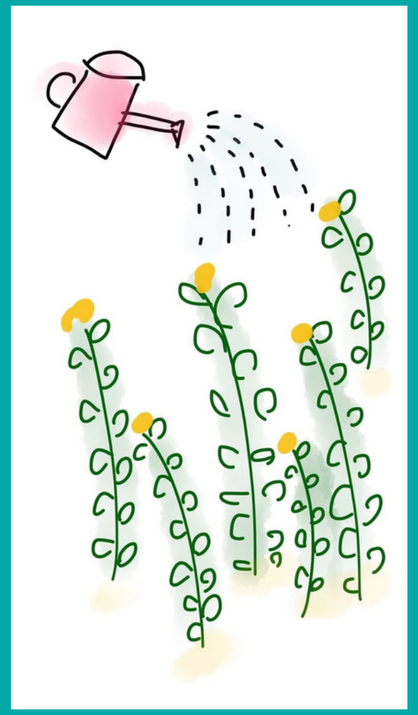
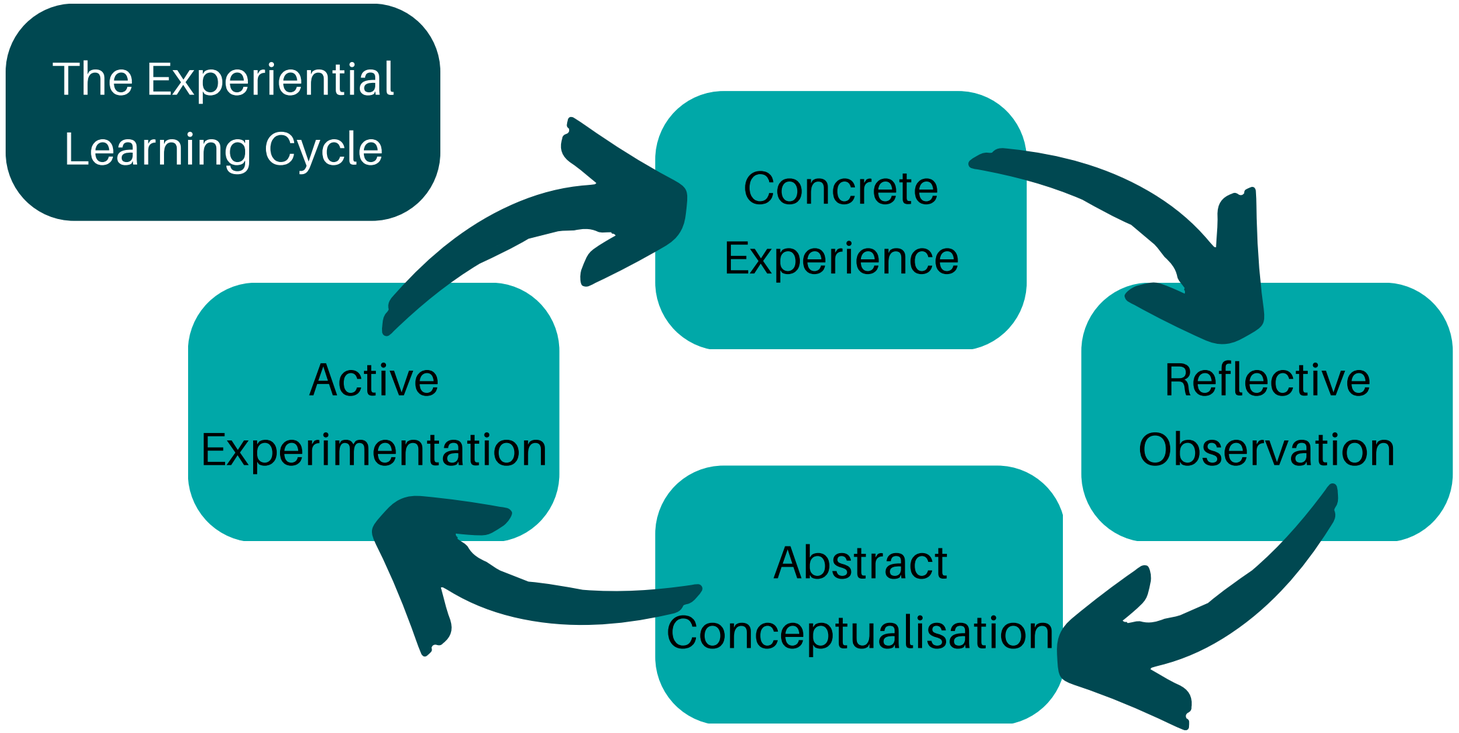
STEM Project



Project characteristics:

- Based on Primary education curriculum
- PBL sequence
- Real problem
- 4 students team
- Disciplines: science and engineering



Kolb, D.A. (1984). Experiential learning: experience as the source of learning and development. Englewood Cliffs, NJ: Prentice Hall.

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Post-test

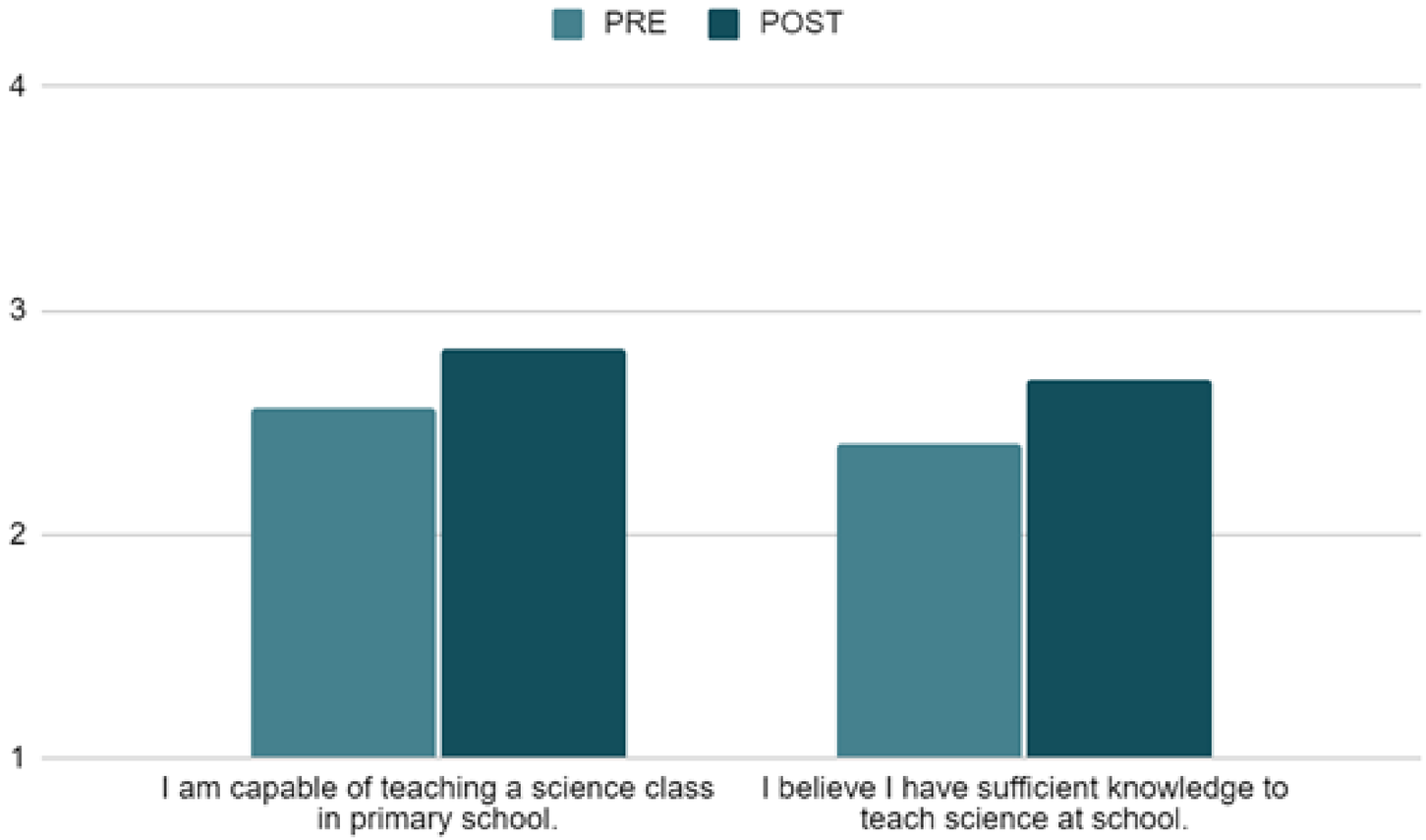
Questionnaire:

- 4 point Likert scale (1-4)

- 4 sections:
  - General questions:
    - age, gender, previous studies and selected degree mention
  - Perception of science and technology studied at school
  - Self-perceived ability to teach science and technology
  - STEM project experience

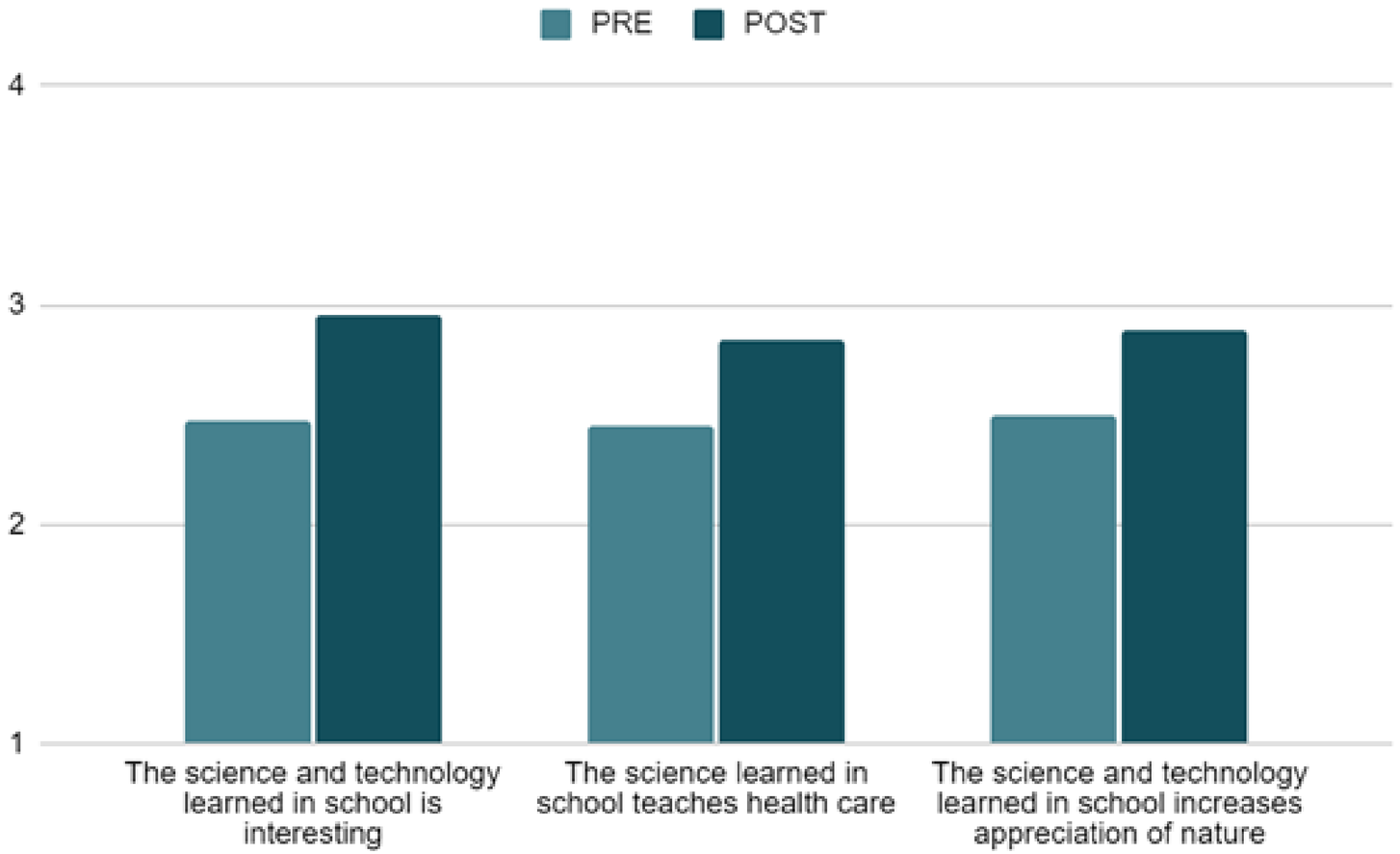
Main results

Self-perception of capabilities



Main results

STEM disiciplines interest and opinion



Main results

STEM project opinion

Top rated items (1-4 scale):

- The atmosphere created in the teamwork has been good(3,64).
- I would recommend this activity to other partners (3,54).
- I believe that such activities should be more frequent (3,49).
- I think it has been a good way to learn (3,47).

Conclusions

- Very good evaluation of the project from the students (post-test and final module evaluation).
- Good impact on students' interest in STEM areas.
- Good impact on students' STEM capabilities self-perception.

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Thank you!