



Training Module 3

Inclusive STEAM model for change of environmental behaviour



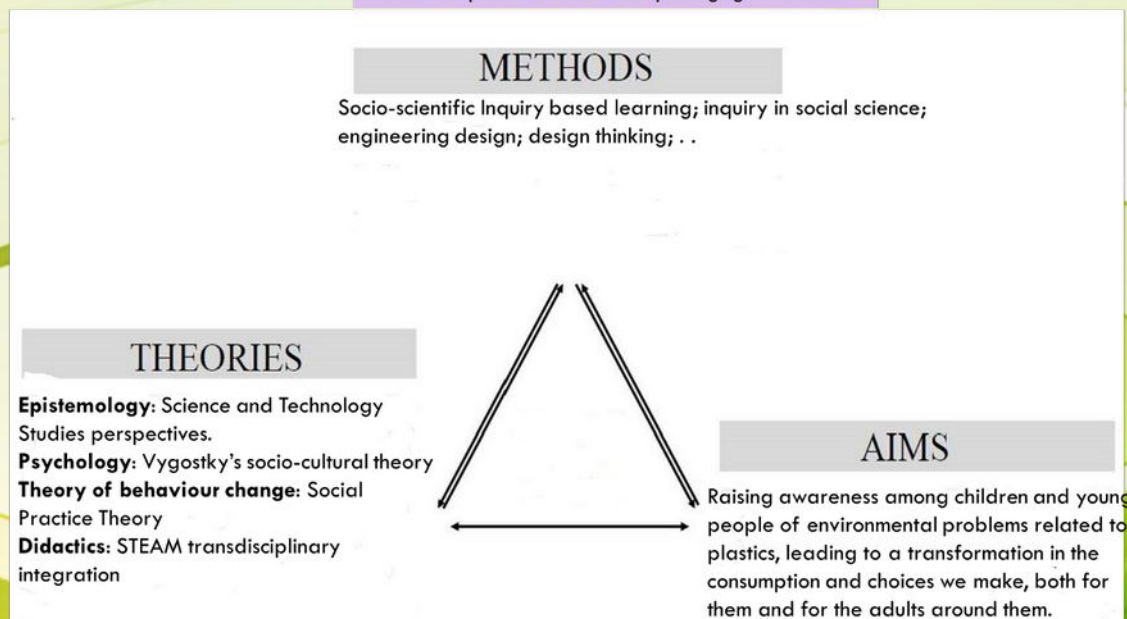
Unit 1

A three-step pedagogical model

Triadic Network



In order to produce a coherent pedagogic framework



PEDAGOGICAL MODEL



For defining the **pedagogical classroom model** for changing **environmental behaviour within inclusive school settings**, we are going to apply the **Social Practice Theory and McGuire's proposal**

This theoretical framework defines a coherent pedagogical model, characterized by three steps:

**Problematization
Understanding,
Action.**

PROBLEMATIZE



- Initial problems should be as authentic as possible to each student;
- have different possible solutions,
- involve different "points of view" for the search of solutions,
- be at once recognizable to children,
- children's contribution to the problem should also be recognizable,
- cooperative action should be mobilized.

(Marshall 2015 and McGuire)

UNDERSTANDING



Use of **active, collaborative, and learner-centred methodologies** that enable them to understand the current environmental situation and to acquire new knowledge, skills, and meanings through social interactions (peers, teachers, society).

Facilitate **critical reflection**, helping students to understand how plastic objects shape our daily life; and the ways to reduce/replace/recycle plastics, through the knowledge of different materials and the development of new skills and meanings.

ACTION



The solutions to the problems found by the children should be **applicable**, enabling students to **become agents of change** and empowerment in their environment.



EXAMPLES OF PRACTICES



- A plasticized planet
- Detectives for sustainability



Work in group



Discuss the possibilities and difficulties they would find for applying the model in their classrooms.



Unit 2

Adaptations for inclusive school environments

Inclusion



Much effort has been invested in inclusive work for different groups at risk of exclusion.

Before → Adaptation of the standards imposed by the curriculum to the different realities with which the students were concerned.

Now → Enrichment of activities that lead to inclusion through activities in favor of an undistinguished group.

STEAM strategies



- Incorporation of illustrative content,
- Based on experimentation,
- Motivation for the student to assimilate the concepts,
- Friendly and practical point of view,
- Room for personal development,
- Cooperation with their peers favors their interpersonal relationships,
- Great variety of degrees of complexity → work at several levels.

Group Discussion



Equity, Diversity and Inclusion in STEM Education ([click here to watch the video](#))

USDG Comic, Margarit De Heer

WHAT YOU CAN DO!
BY: MARGREET DE HEER

THE GLOBAL GOALS
For Sustainable Development


BUT WHAT CAN WE DO? WE ARE NOT IN GOVERNMENT OR ANYTHING...

THE MOST IMPORTANT THING IS THAT WE ALL GET ON THE SAME PAGE! HERE'S WHAT YOU CAN DO:

For tips on using global goals for student inquiry, see the STEM education toolkit in the accompanying PDF

1. THINK ABOUT IT

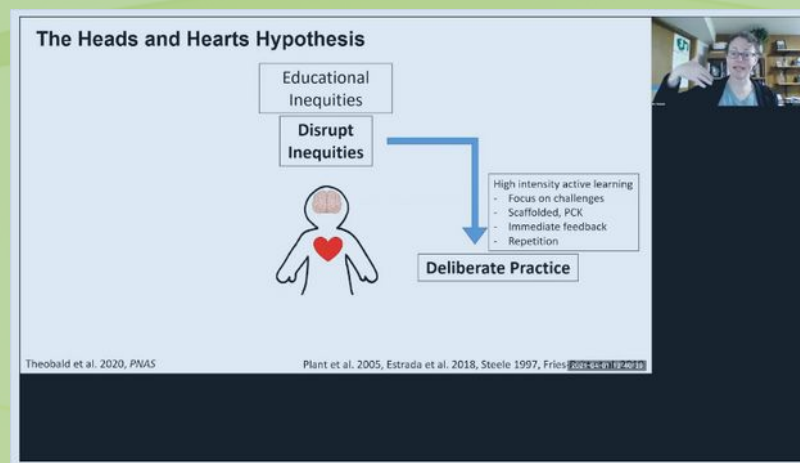
2. TALK ABOUT IT



Group Discussion



How active learning can improve inequities in STEM
([click here to watch the video](#))



Group Discussion



Inclusion in STEM ([click here to watch the video](#))



WORK IN GROUP



Develop an inclusive activity using SPEM model for change of environmental behaviors, in particular related with the misuse of plastics.

Make explicit its inclusive characteristics.

The activities developed are going to be discussed in the whole group