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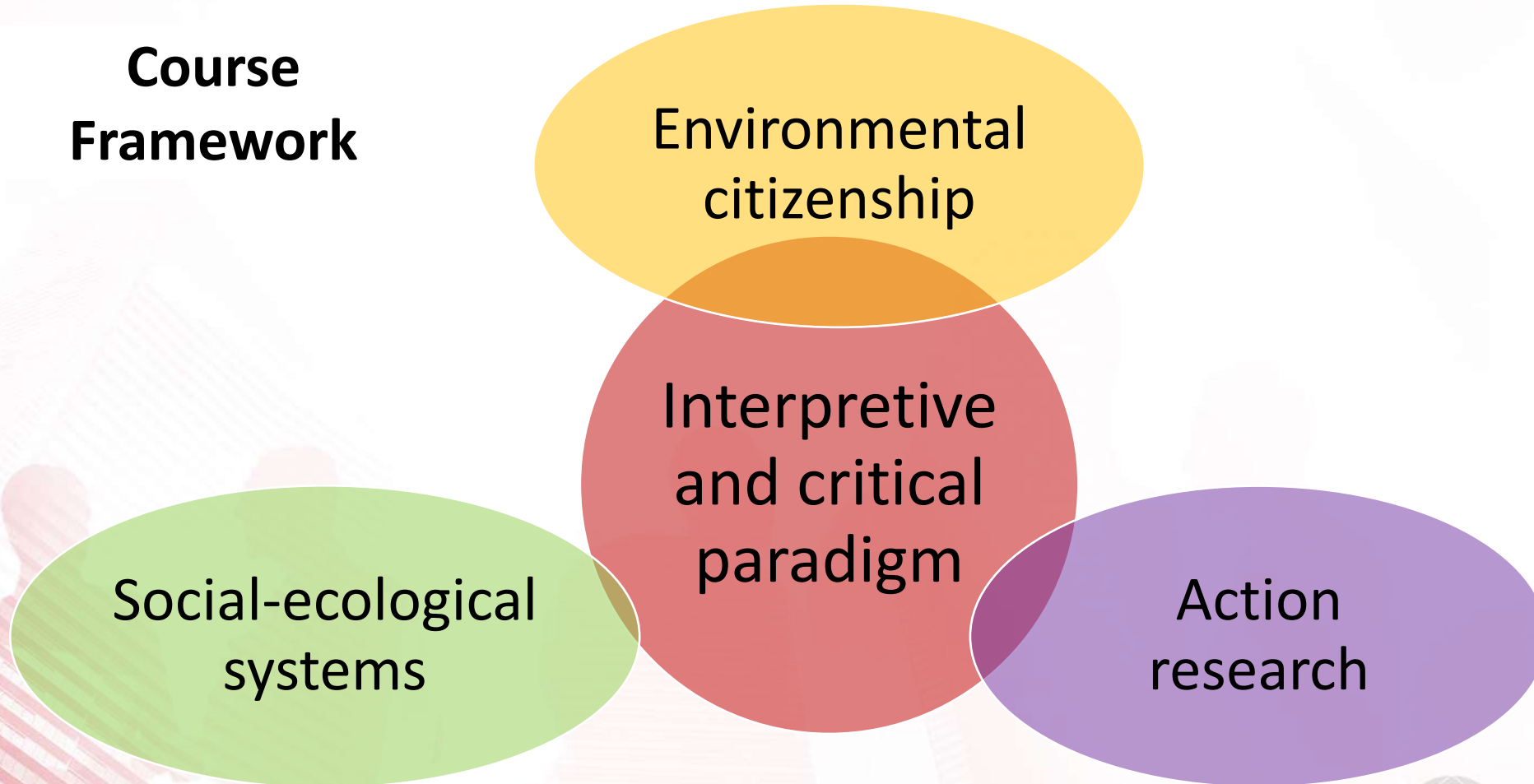


## Action Research as a Teaching Method in an Environmental Education M.Ed. Course Fostering Environmental Citizenship

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## Course Framework



# The concept of environmental citizenship

Civic action is defined as a pro-active approach of individuals or groups in the public arena for the accomplishment of common goals (Chawla & Cushing 2007).

Similarly, the term "**environmental citizenship**" means **self-perception as an integral part of the environment** and a willingness to take action to render it sustainable (Dobson, 2003).

The nature of environmental dilemmas, which often transcends national borders, is such that it defines "**environmental citizenship**" as **global citizenship** – rather than citizenship a particular state (Dobson. 2003; Berkowitz, Ford & Brewer, 2005).

The environmental citizen remains committed to the **basic tenets of liberalism** (especially freedom of the individual) **together with an active participation** (republican in nature) in civic-environmental matters (Barry, 2006).

# The challenges to educate for environmental citizenship

Promoting environmental and active citizenship should be achieved by development of:

- critical thinking,
- value awareness,
- problem solving skills,
- initiative thinking

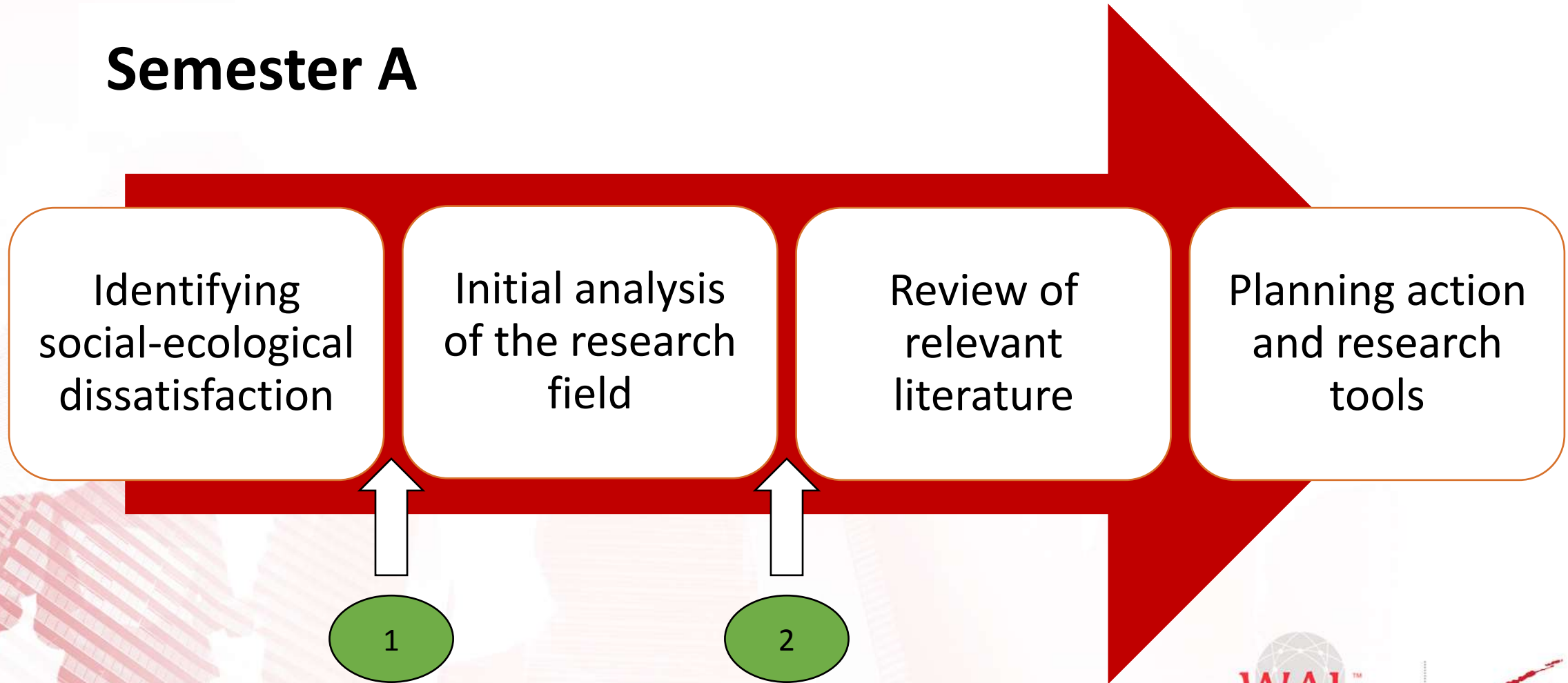
(Wals and Van der Leij, 1997, Whitehead, 2012; Wood, and Govender, 2013)

# These goals emphasize the need to change the educational approach:

- Exposing students to knowledge is essential but not sufficient for fostering citizens who have the drive and skills to act for a sustainable future (Berkowitz, Ford and Brewer, 2005).
- Empowering students, as one of the major principles of sustainable development, means that someone else has to give up that power (Smyth, 2006; Burns and Worsley, 2015).
- It means questioning the traditional division of authority between teachers and students and requires a new definition of the teachers' role (Keiny, 2002).

- When considering the environment as a social-ecological coupled system, the common goal of ES can be defined as the resilience of the socio-ecological system; namely, its ability to absorb shocks while maintaining its essential functions.
- When changes cause undesirable conditions, resilience refers to the ability to self-organize into a healthier state (Plummer and Armitage, 2007).
- We use sustainability to refer to the preservation of system flexibility to adapt to changes, but not necessarily the preservation of the status quo (Griggs et al., 2013)

## Semester A










# Thinking together

**Think about 10 thoughts from the previous week.**

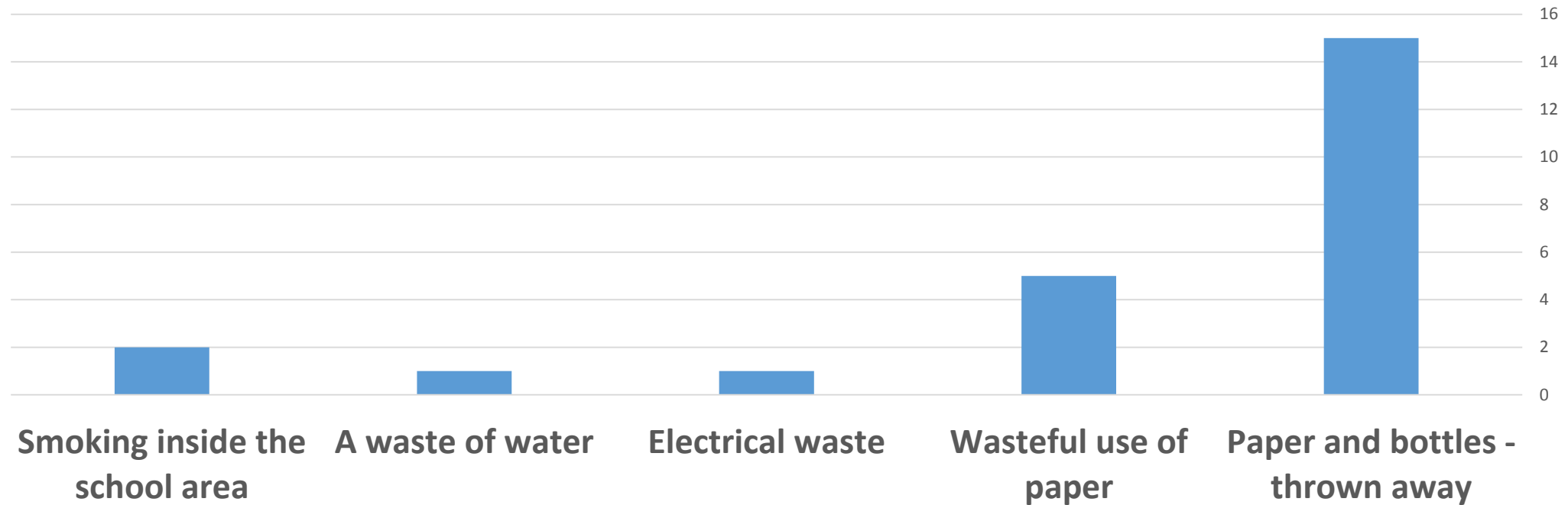
# What did we think about last week:



Relations Time	yesterday	today	tomorrow	in a week	in a year	in ten years	in 100 years
me							
my family							
my friends							
my community							
my country							
the world							

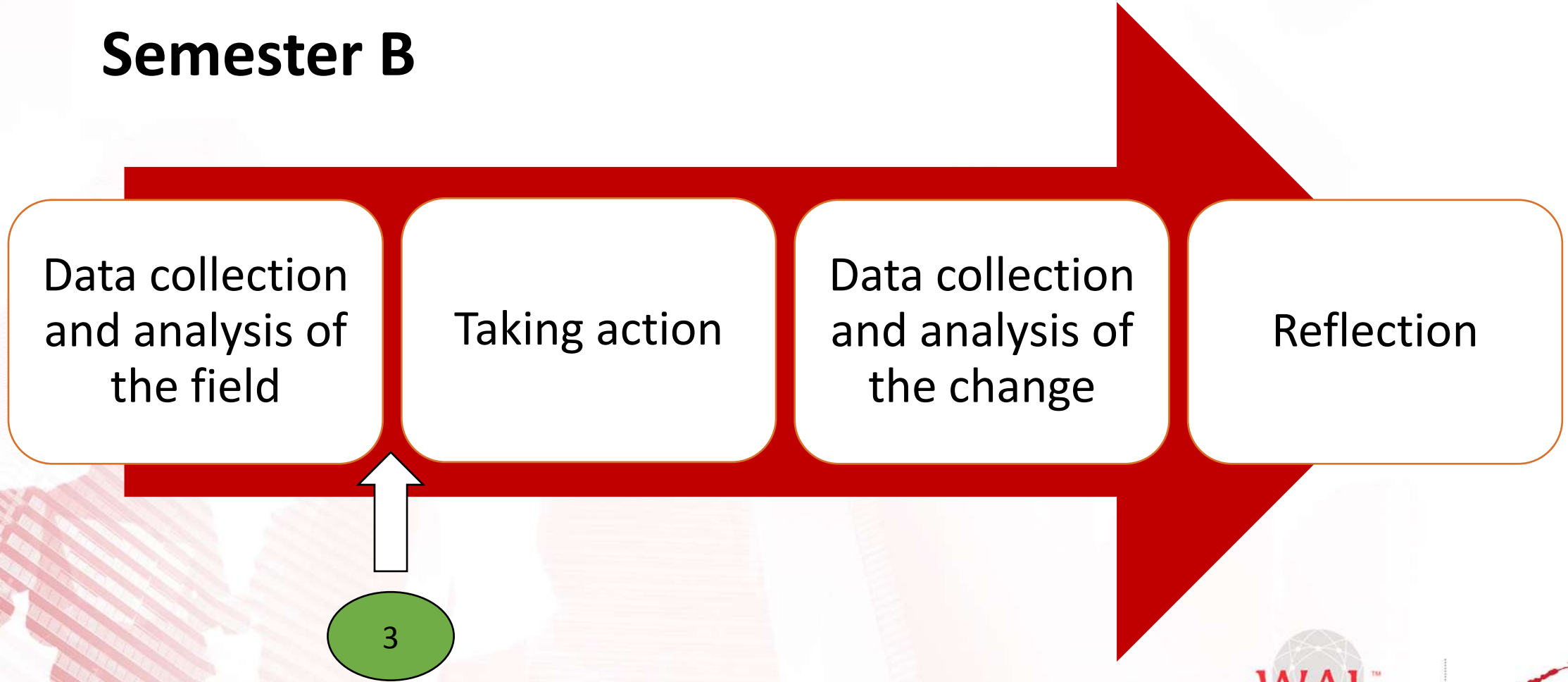
Waste accumulation is a key factor in the students' perception about environmental interference (62% of the students)

## What bothers us?



Issues raised by students in teams n=24

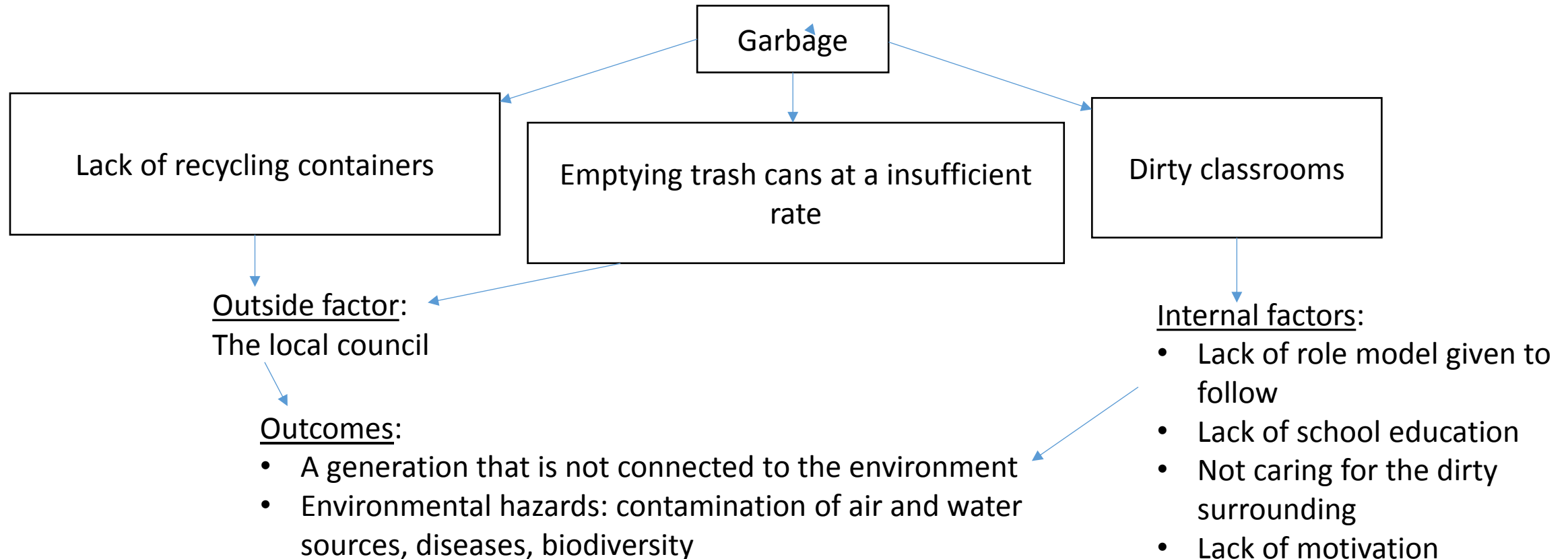
# Semester B



1. Mapping in teams of five students
2. Personal - initial analysis of the research field
3. Personal mapping after data collection and in light of comments and insights received from classmates and teachers

# Mapping by a team:

What are the problems, barriers to change and the prospects to make a difference?



## Ways to change:

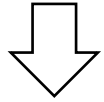
Positive feedback - the teacher serves as a role model: picks up waste

Positive feedback - installation of recycling containers in classrooms reduces the amount of garbage that is not biodegradable

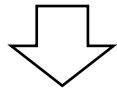
# Mapping by teams:

## What bothers us?

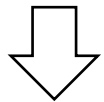
Paper and bottles -thrown away because of unawareness and lack of culture



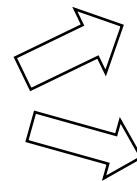
Lack of recycling containers



Lack of separation of garbage



Garbage cans crammed with garbage spills over



Organic material

Inorganic material

**Positive feedback:** when teachers pick up litter, students imitate them.

## **Barriers to change**

- Lack of understanding of the environment by the younger generation.
- The children are self-centered and unaware of what is happening around them
- The children are not familiar with the world of fauna and flora

Interpersonal communication  
problems



Generation that is  
not connected to its  
environment



### **Possible reasons:**

1. Habits from home
2. Social norms
3. Lack of models to imitate
4. Not enough environmental education in school

# Initial mapping by students of the action research field

Results

Population

Attitude to  
animals

Culture

Snails

Attitude to  
the weak

Conclusions

Discourse

Being  
active

**Delivering  
knowledge**

Objectification  
of the snails



Me  
as an external  
actor in the  
system

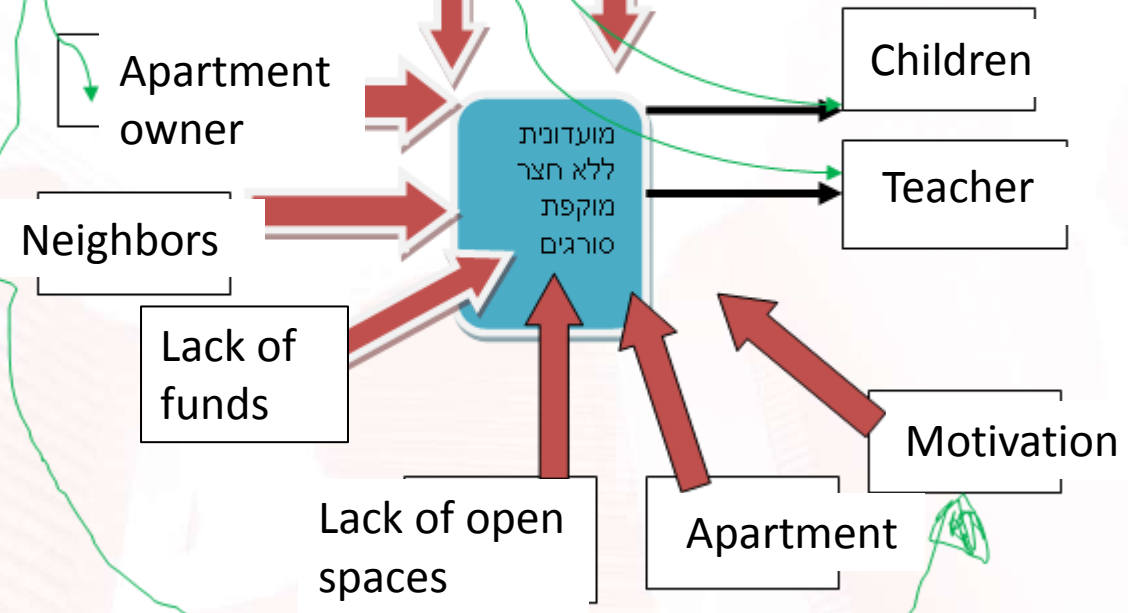
My goal is to  
improve the  
system

אני גורם חיצוני  
למערכת  
שמטרתה  
לשפרה

Ministry of  
Welfare

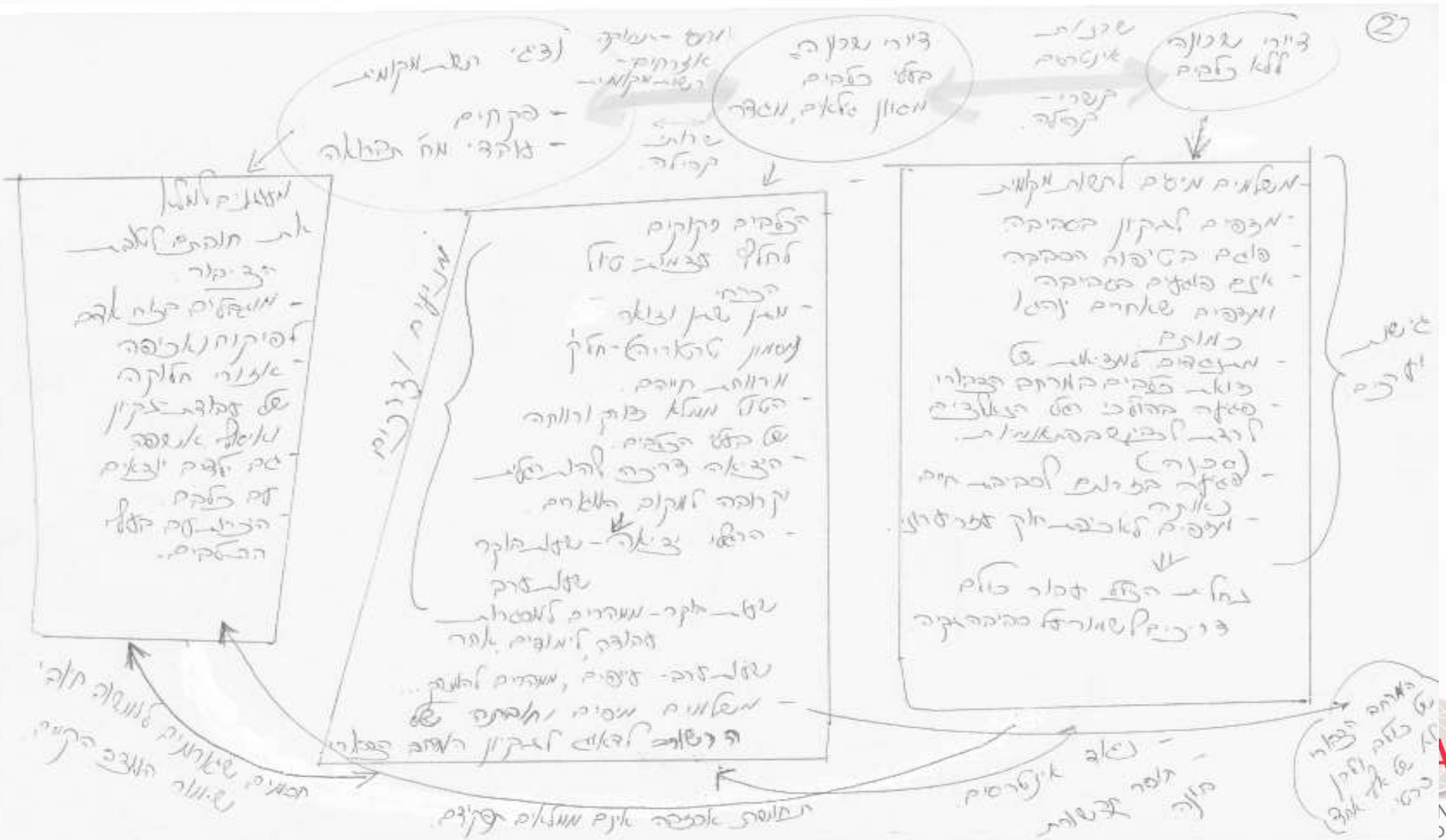
Local  
council

**After school club**  
Apartment with window bars;  
without a courtyard

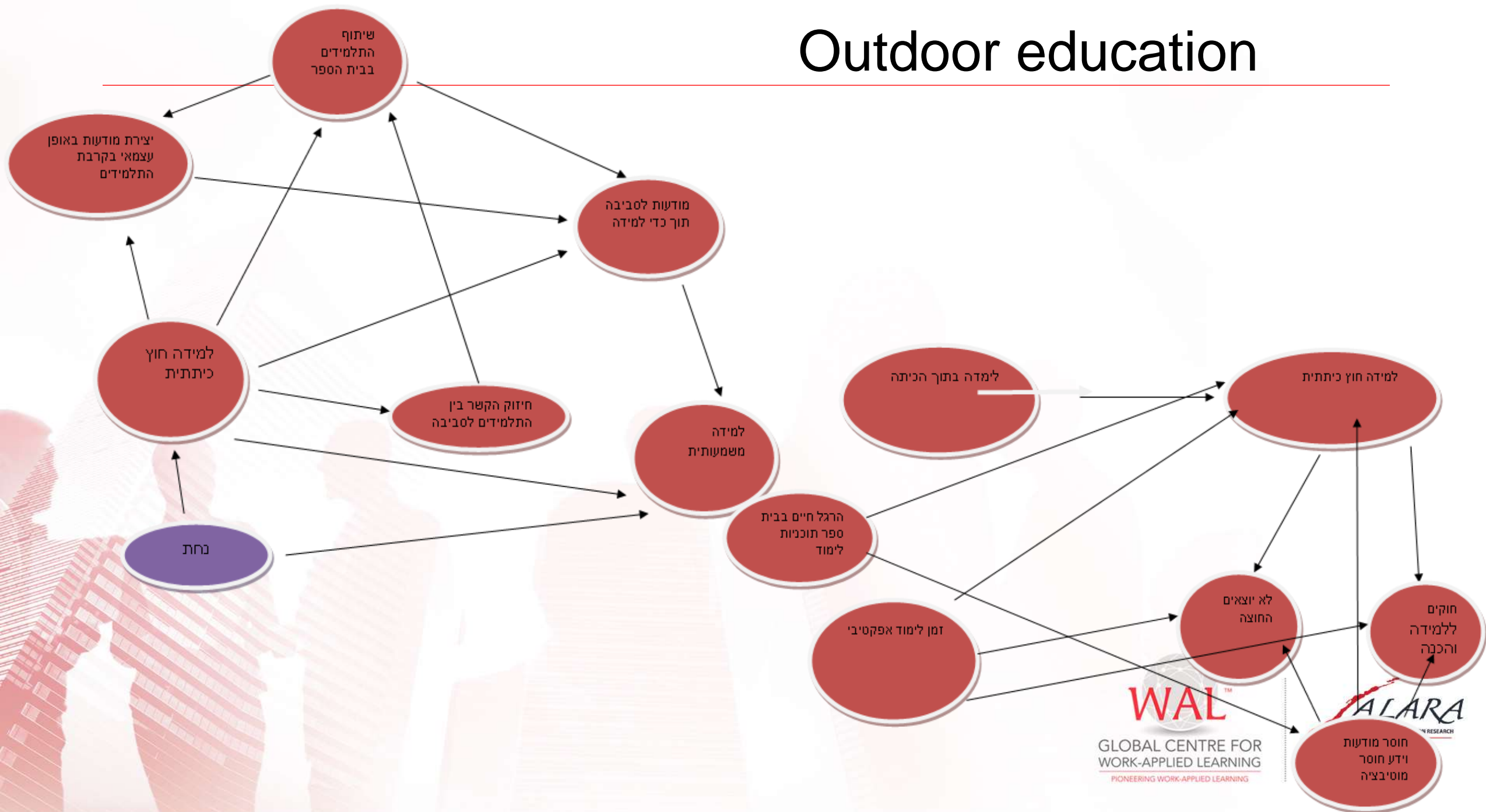


→ Components that I can influence to make a difference in my system.

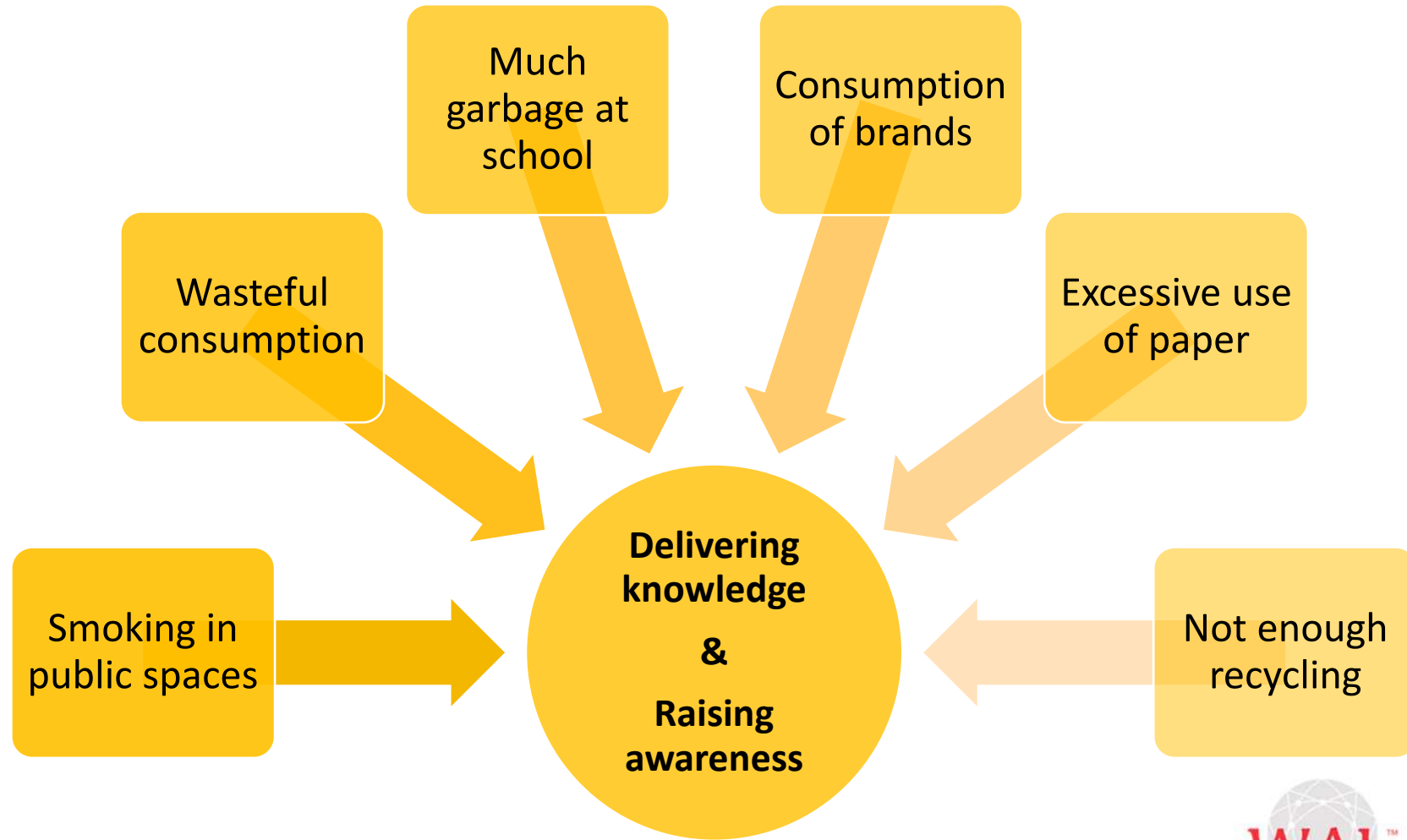
→ Barriers to change. Factors that maintain the current situation in my system.



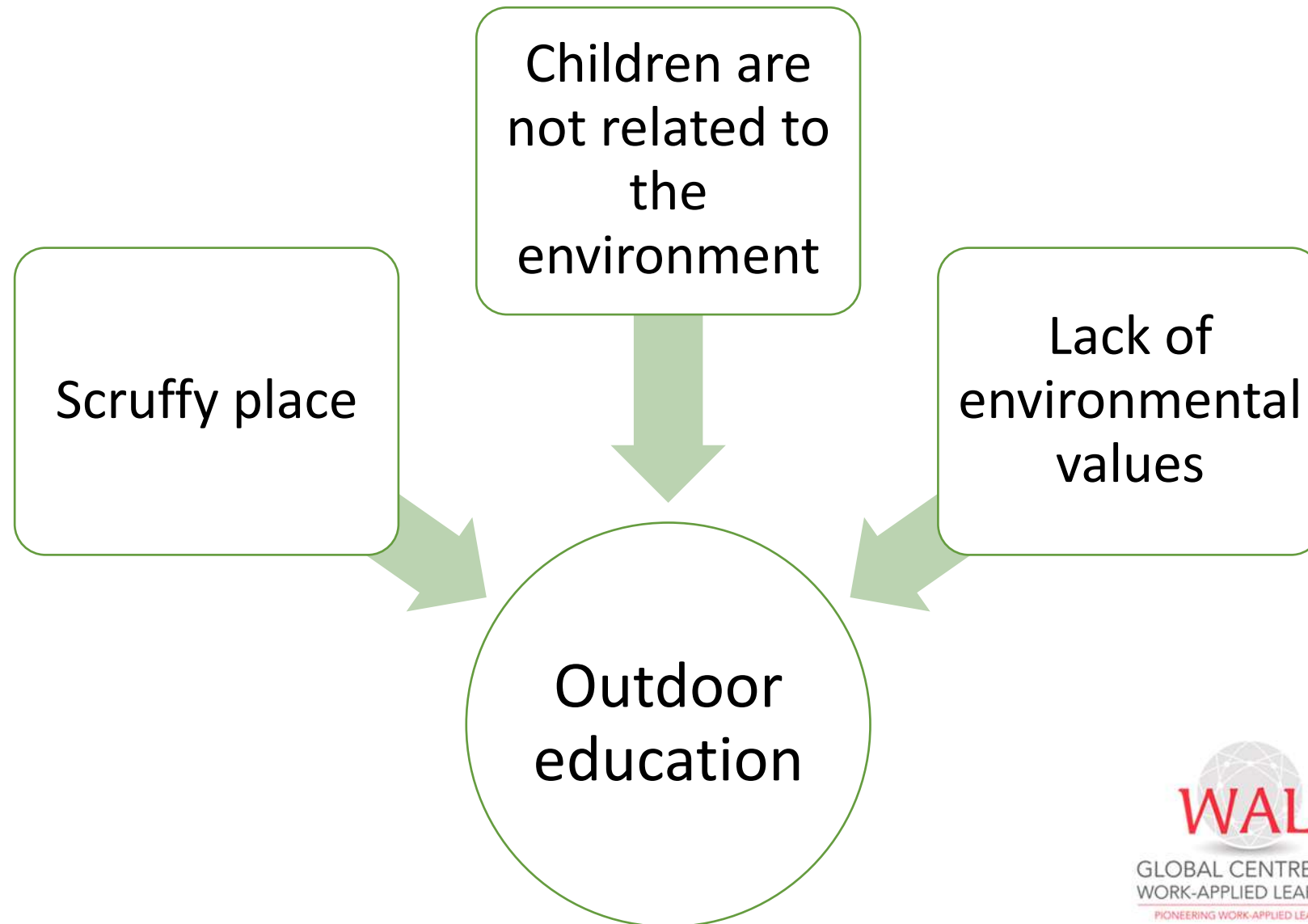
# Outdoor education



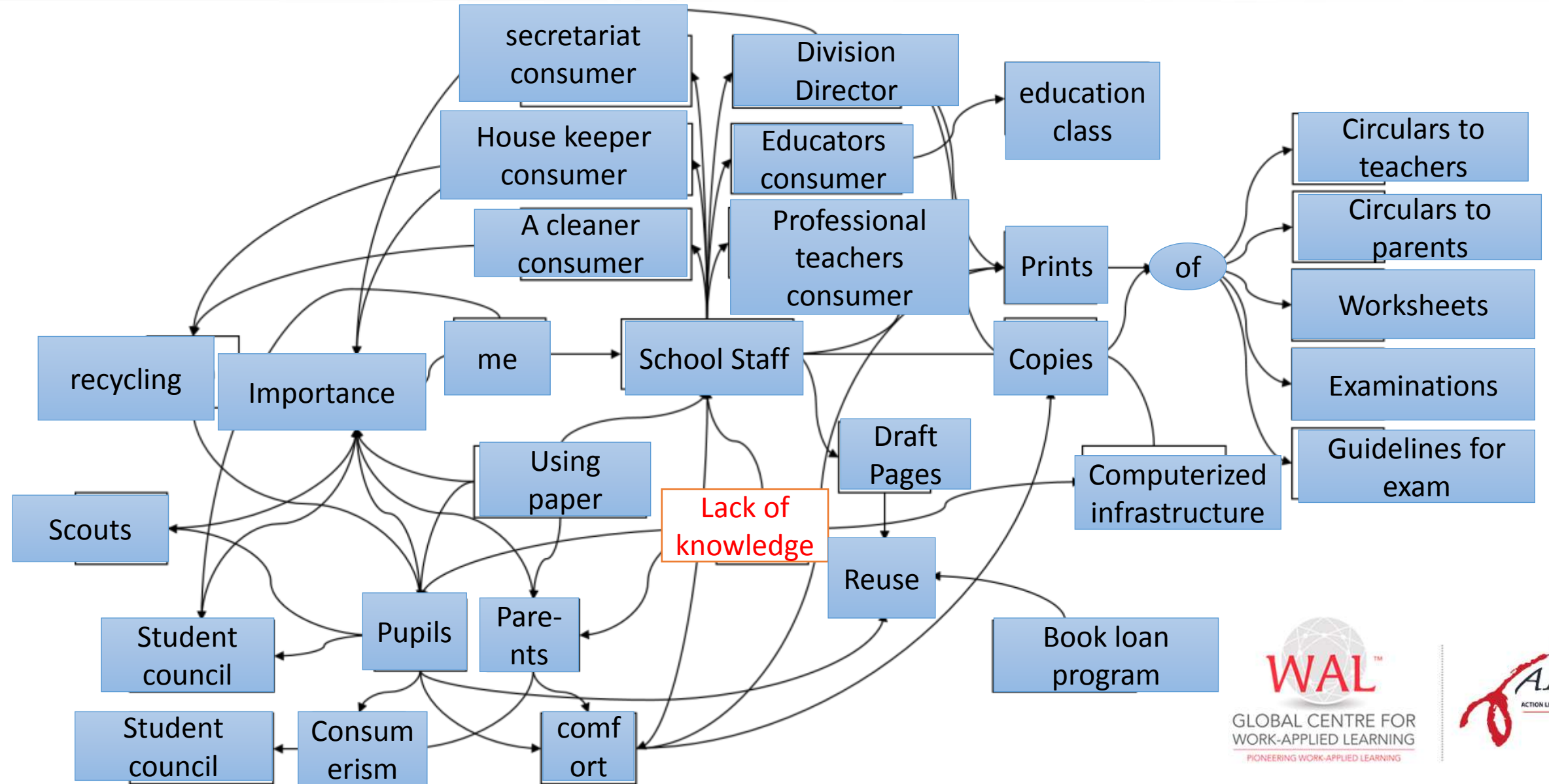
# What do students perceive as a problem and the solution?



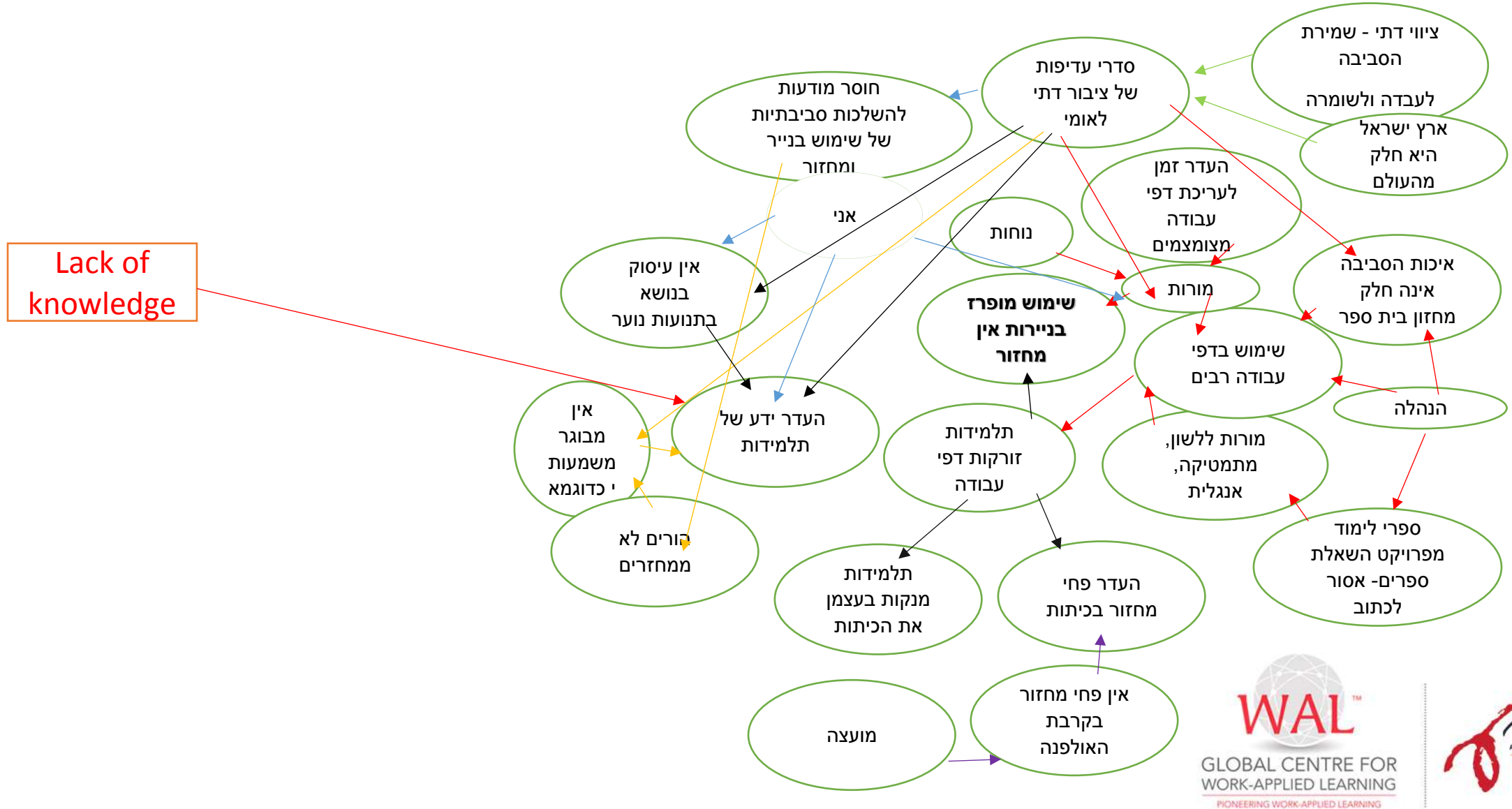
# What do students perceive as a solution?



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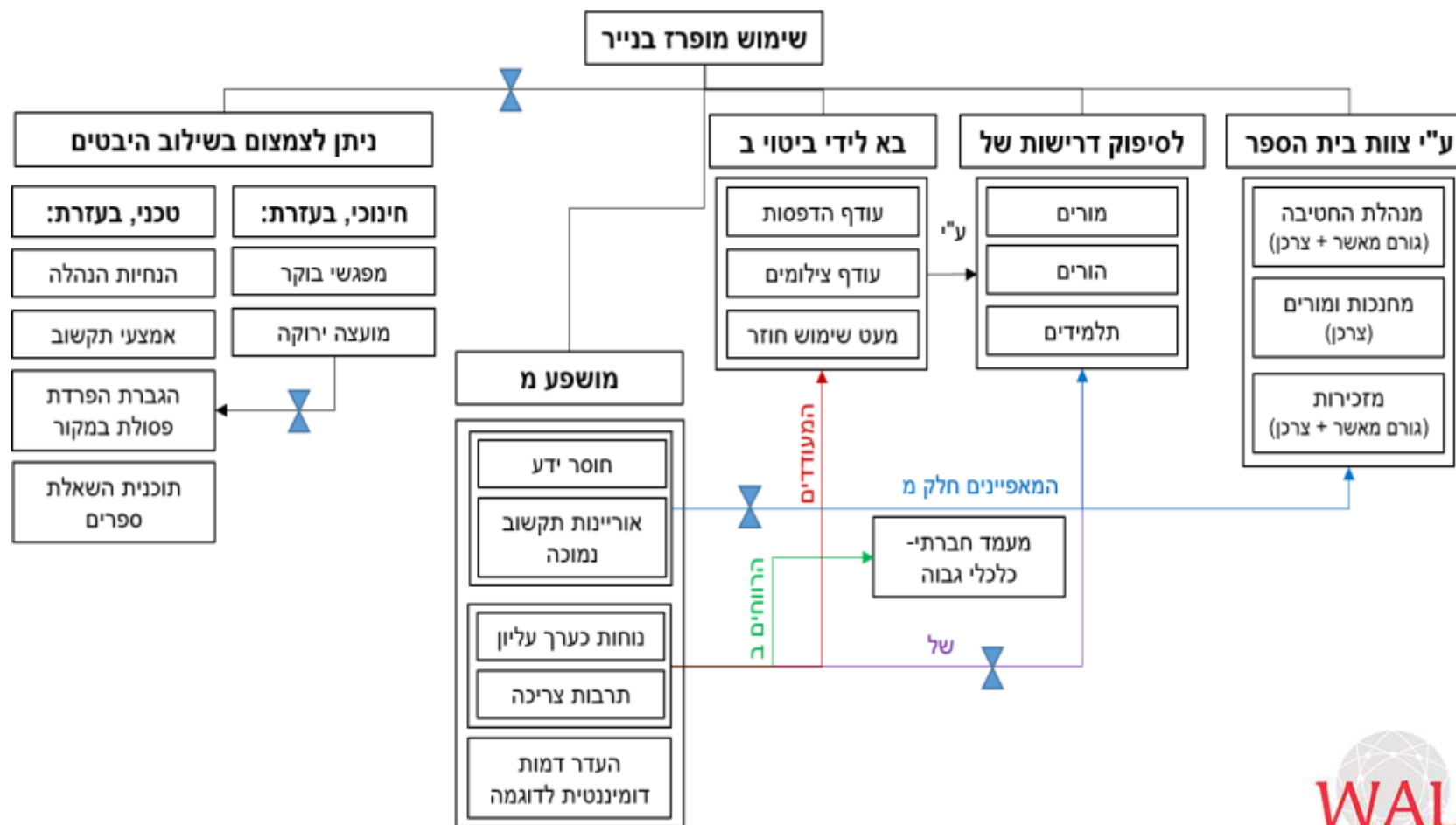


# Excessive use of paper



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Personal mapping after data collection and in light of comments and insights received from colleagues and teachers

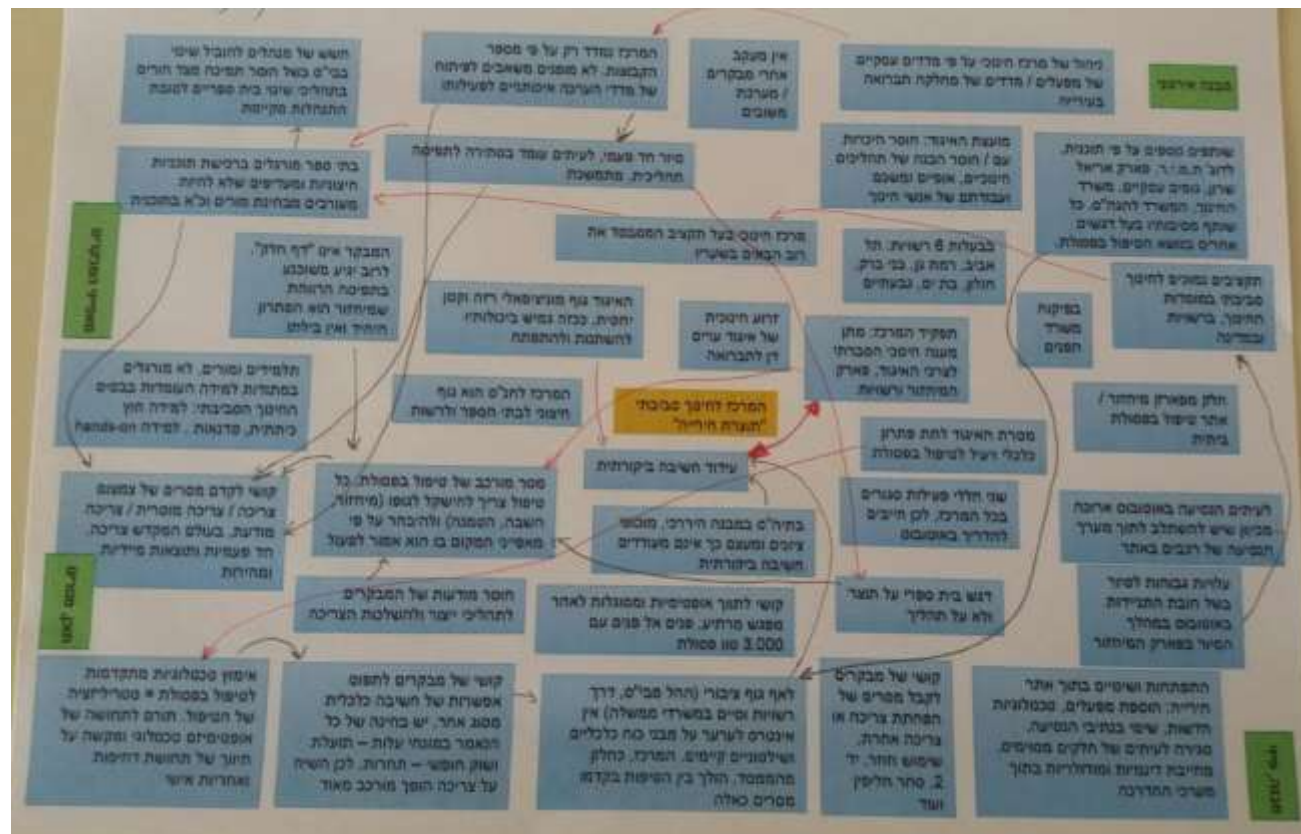


Marking processes where I can intervene and influence



# Reducing consumption instead of just recycling

Personal mapping after data collection and in light of comments and insights received from colleagues and teachers



- A process which enhances the existing situation
- A process that strengthens change

**What is needed to develop educator skills for environmental citizenship?**

# Conclusion

- Student's initial inclination was to identify littering as the main environmental problem - local and short-term issues.
- There was also a tendency to perceive lack of knowledge and awareness as main reasons for environmental problems.
- Group and personal training of research field mapping, as well as feedback from colleagues and lecturers, demonstrated a more complex picture.
- The mapping made the action research focused and gave a more suitable solution to the dissatisfaction the students experienced.
- Lecturers had a vital role -
  - Challenge the simplistic view of the problems
  - Demonstrate a dogmatic approach to solutions
  - Encourage students to identify structures and dynamics that maintain unwanted situations
  - Review drafts and give constructive feedback
- The supervisors were required to constantly examine the students' place within the process and to offer flexible guidance, according to the students' progress in understanding the field.
- The students' change in perception was noticed, particularly in the maps they constructed.
- The use of field mapping may be a key tool in the development of active citizenship and sustainability. This should be used alongside action research and systematic reflection.

Thank you

