

# Collaborative learning for fostering change in complex situations

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# Food and farming systems

## Human activity systems

- Complex
- Diverse and heterogeneous
- Depend on human management
- Involve multiple actors
- Interdependence of actors and actions



The Harvest Van Gogh 1888  
Van Gogh Museum

# Fostering change

“Whoever owns a problem should be a co-owner of the process to solve it”  
(Checkland 1981)

- Change can only happen when actors modify their actions
- Motivation to change
  - External → as a results of e.g. incentives, policy
  - Internal → by gaining e.g new insights and understanding

**Learning of and among actors = key element to promote change**

# Collaborative learning

Unpacking the concept

# Why collaboration?

“a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible.”

(Gray, B 1989)

- **Benefits:**

- Deal constructively with differences
- Overlooked issues emerge
- Solutions adapted to local needs

- **Limitations**

- Time need to reconcile conflicting interests
- Power imbalances
- Compromise



<http://www.animaatjes.de>

# How do we learn?

Learning is a process of reducing information or increasing order by structuring it or recognizing patterns

(von Cube, 1967:53)

- **Experiential Learning Theory** (Kolb 1984)

Learning by doing

- **Transformative Learning Theory** (Mezirow 1991)

Relevance system is transformed through critical reflection

- **Expansive Learning Theory** (Engeström 1987)

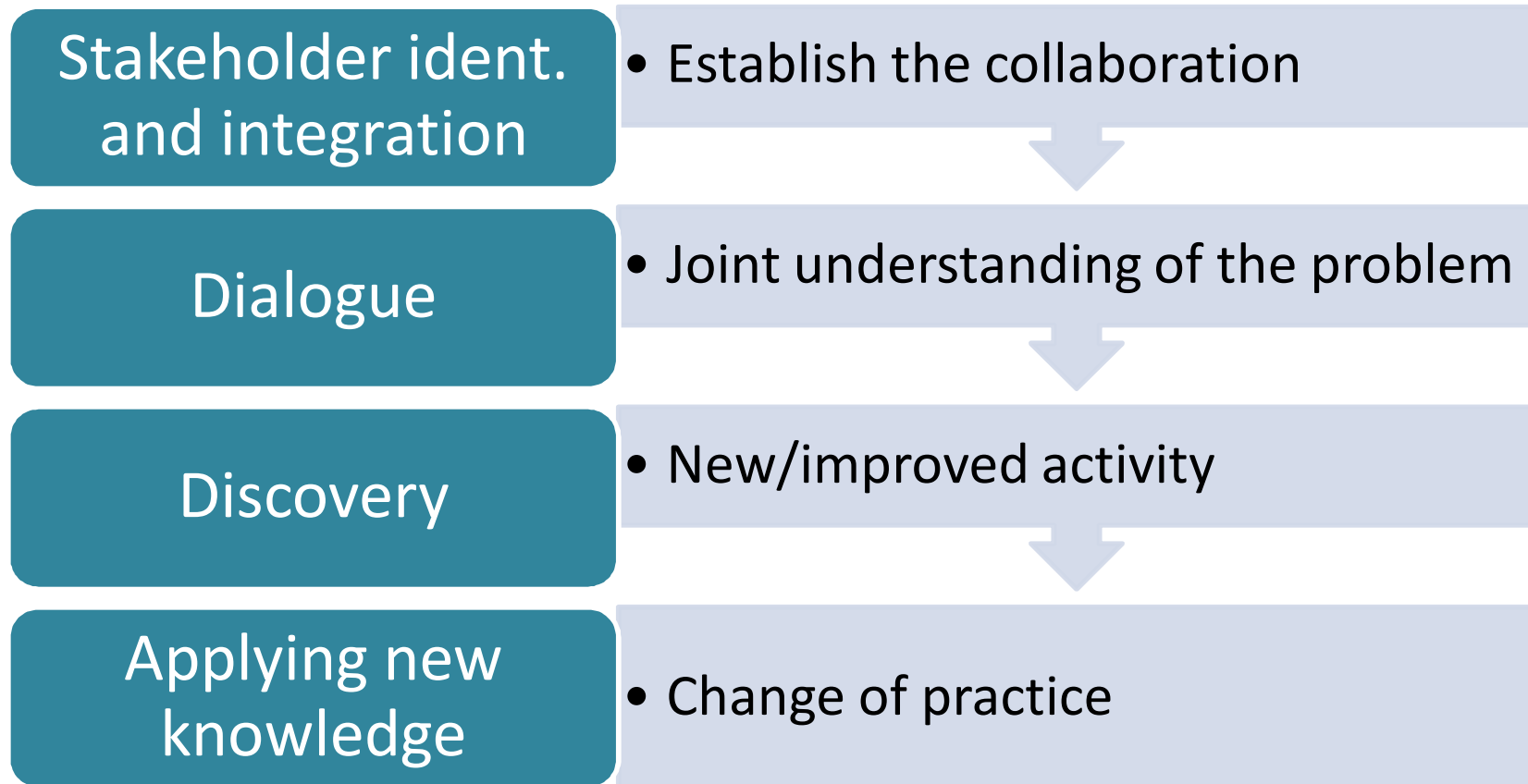
Using contradictions, learners are involved in constructing and implementing a new model of practice



<http://knowledgeandmanagement.wordpress.com>

# Collaborative Learning

- A process of:



Inspired by Engeström 1987; de Jager et al. 1994

# Meta-study: Contribution of different methods to collaborative learning and fostering change

## Assessment criteria



# Establish the collaboration

## Stakeholder representation

Multiple types of stakeholders included

Diversity of interest represented

## Stakeholder participation and roles

Collaboration established

Benefits, roles and responsibilities clarified

Communication institutionalized

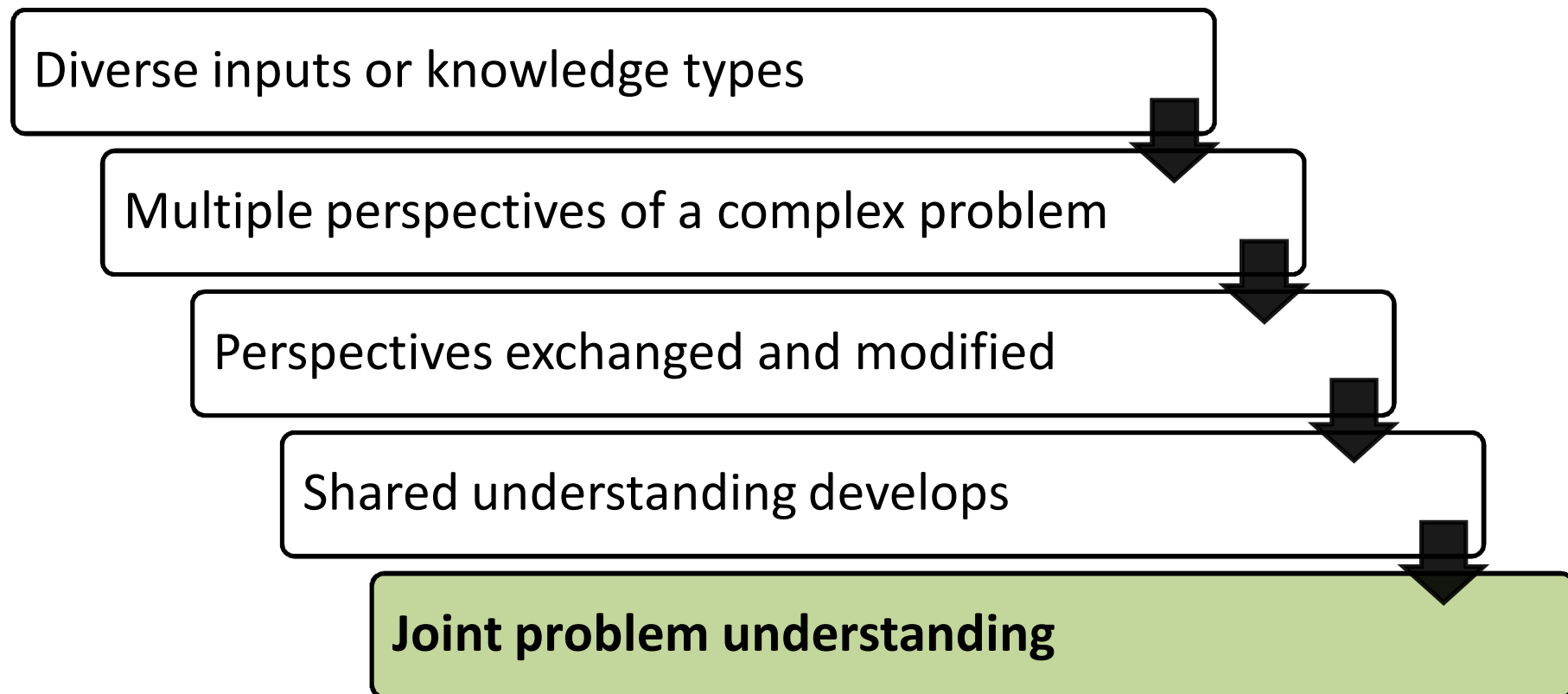
Power differences balanced

Assessment criteria adapted from Plummer and Armitage 2008

# Process of dialogue

Knowledge integration through the transformation of relevance systems

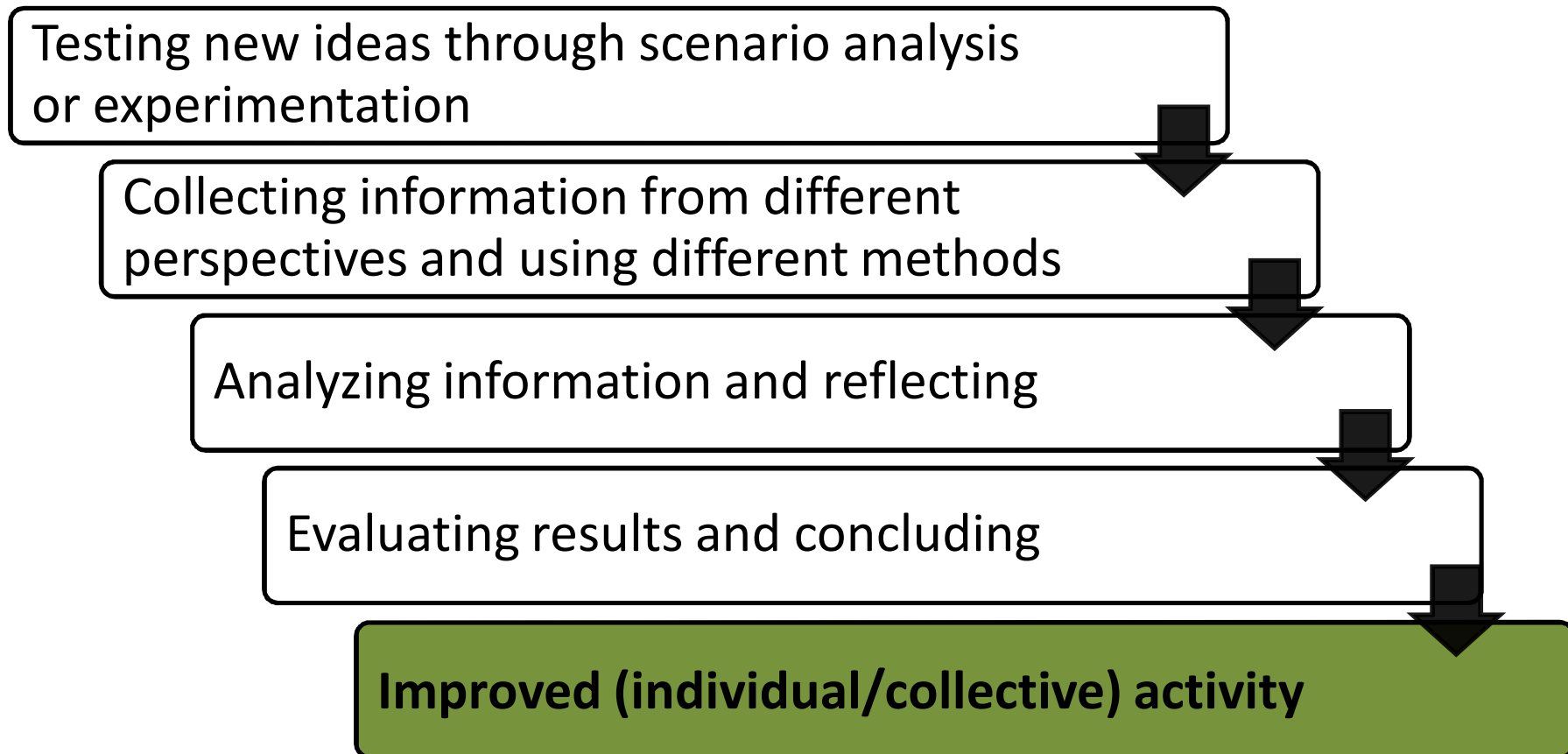
Transformative learning theory (Mezirow 1991)



# Process of discovery

Knowledge creation through the transformation of experiences

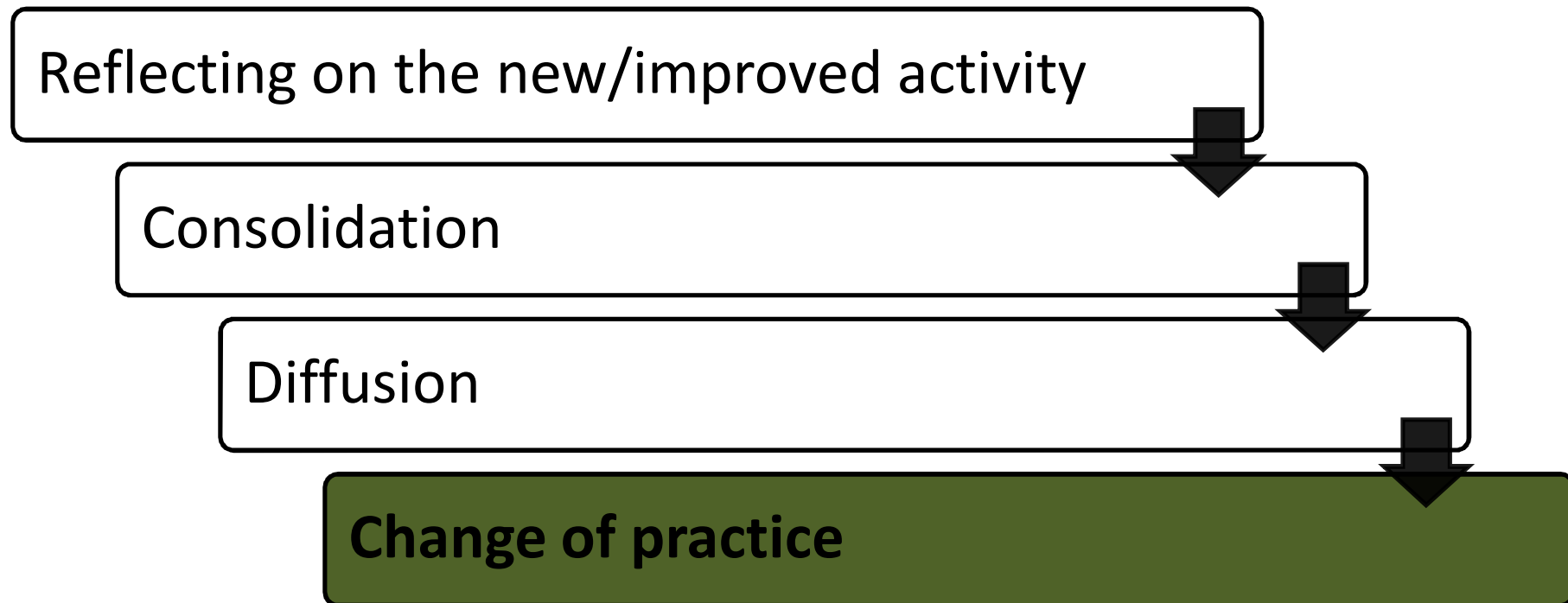
Experiential learning theory (Kolb 1984)



# Applying the new knowledge

New socially accepted practice

Expansive learning theory (Engeström 1987)



# Outcomes

From the collaborative learning process

- **Increased action possibilities**
  - Change in the relevance system
  - Enhanced problem-solving capacity
- **Promotion of agency**
  - Human capital: capacity building
  - Social capital: trust, networks, collaboration



# Assessment of methods

Collaboration	Assessment criteria	Method
Stakeholder representation	Multiple types of stakeholders included	Network analysis Stakeholder analysis Interviews Snowball sampling
	Diversity of interests represented	
Stakeholder participation and roles	Collaboration established	
	Benefits, roles and responsibilities clarified	
	Communication happens	
	Power differences balanced	

Plummer and Armitage 2008

Learning process	Assessment criteria	Method
Dialogue	Diversity of inputs or knowledge types included	Literature review Surveys
	Multiple perspectives on the complex problem incorporated	
	Perspectives exchanged and modified	Field days/visits
	Shared understanding developed	Constellation analysis Cognitive maps
Discovery	Experience gained by testing new ideas	Co-inquiry Modelling and simulation
	Information actively acquired	Monitoring
	Information analyzed	Group discussion
	Results interpreted and conclusions drawn	
Apply the new knowledge	Reflect on the activity	
	Activity consolidated	Codifying new rules
	Diffusion	Lessons learnt shared

# In conclusion

Collaboration between stakeholders improves the ability to **respond**, **adapt** and intentionally **transform** in relation to the complex problems