

The role of the teacher in Realistic Mathematics Education DiFiMa 2017

LAMBRECHT
SPIJKERBOER

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Torino, 17-10-17

STA

- Consulting company for education
- To spread (new) insights in the organisation of learning.
- Especially math and science education
 - Lectures
 - Workshops
 - Seminars
 - Training
 - Coaching
 - Consulting

The role of the teacher ... RME

1. ... dealing with contexts; beyond the questions asked in textbook exercises.
2. ... organising cooperative learning; to invite students to act and think themselves.
3. ... *questioning; to provide students with higher level thinking skills.*



The role of the teacher in Realistic Mathematics

Education
DiFiMa 2017
Make 3 questions
because of this special
date today

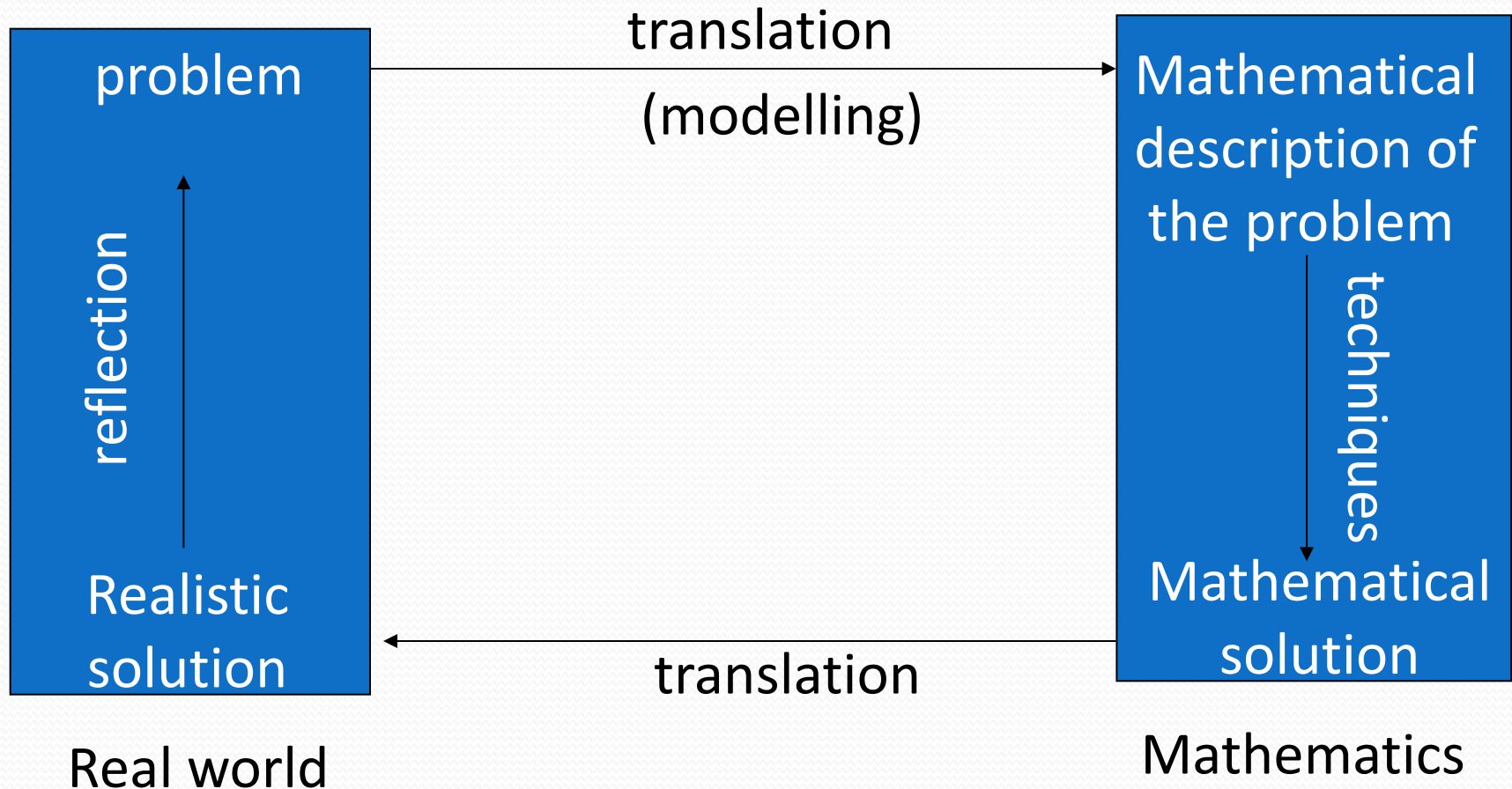
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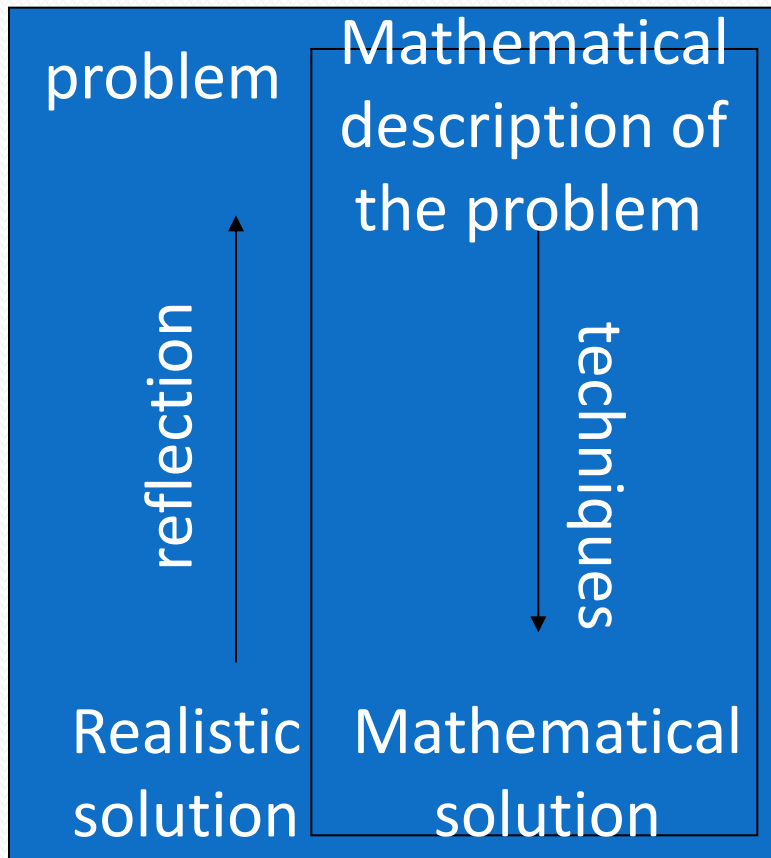
Examples

- Is this Realistic Mathematics Education?

Horizontal mathematisation



Realistic Mathematics Education (RME)



Real world / mathematics

The use of contexts as

- Introduction
- Didactical model
- Application

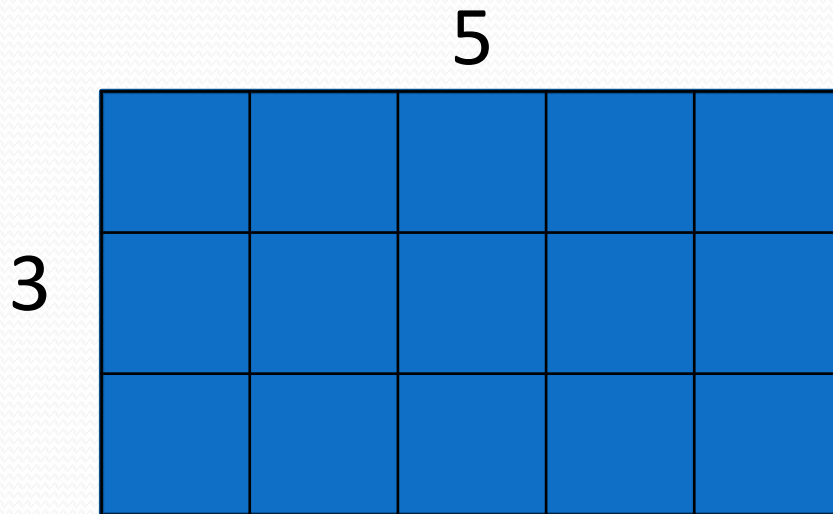
Once there was a witch....

- Please make the exercises of the worksheet and discuss:
 1. What makes this model usefull?
 2. Which problems do you forsee?
 3. Can you use this in class?



The story of the witch is a didactical model for computation with positieve and negative numbers

Didactical model II



Area:

$$3 \times 5 = 15$$

$$5 \times 3 = 15$$

The *area* is a didactical model for multiplication

The role of the teacher ... RME

1. ... dealing with contexts; beyond the questions asked in textbook exercises.
 - Not only: *Solve...*, but also: *Explain yourself...*
 - Choose the way you use the context for learning (introduction, model, application).
 - Quit from the context before the problems occur.
 - ...

The role of the teacher ... RME

1. ... dealing with contexts; beyond the questions asked in textbook exercises.
2. ... organising cooperative learning; to invite students to act and think themselves.
3. ... *questioning; to provide students with higher level thinking skills.*

Noticed teacher activity

high

Plenary
instruction

Learning - activating
didactics

STEERING

GUIDING

low

high
Noticed student activity

LEAVING ALONE

COACHING

Learning
out of sight

Independent
learning

low

Noticed teacher activity
high

Plenary
instruction

Learning - activating
didactics

STEERING

GUIDING

Where do you have the best options to ...
**organise cooperative learning; to invite
students to act and think themselves.?**

low

Noticed
high student
activity

LEAVING ALONE

COACHING

Learning
out of sight

Independent
learning

low

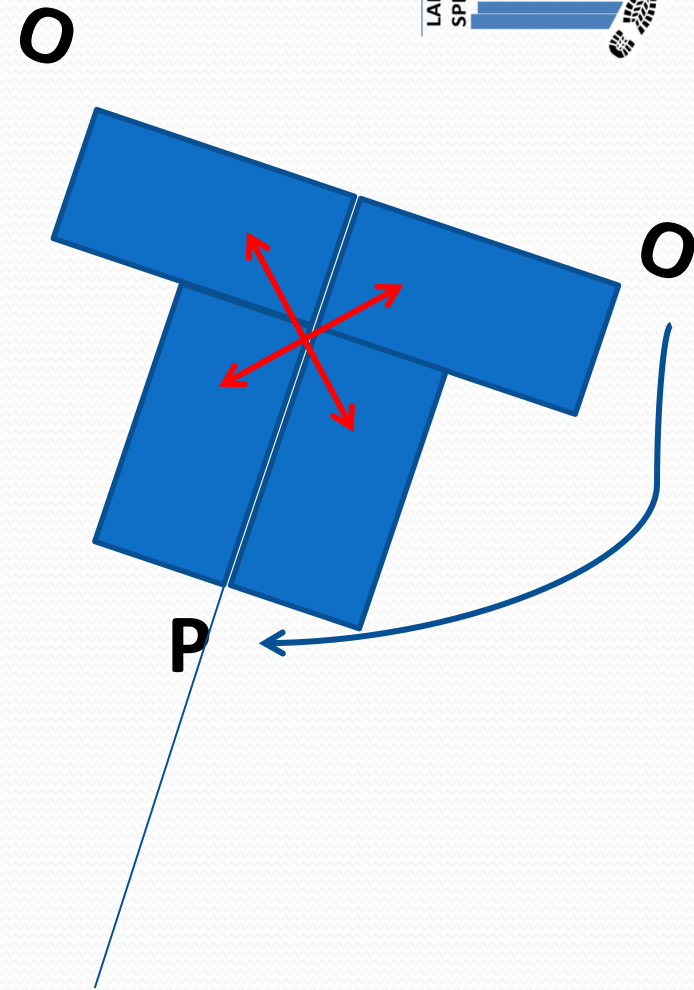
Cooperative learning

Learning - activating
didactics

GUIDING

Facilitate CL

- Organise your classroom for Cooperative Learning.
- Mind you speed of walking around.
- Choose position for group guiding



Questions ...

I'll be happy to answer e-mails:

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