REALISTIC MATHEMATICS EDUCATION (RME) & PENDIDIKAN MATEMATIKA REALISTIK INDONESIA (PMRI)

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Arghhh... Ini dibaca anak-anak!!!

Waduh... Gurunya kok kiler gini... Bisa mati kuteh aku belajarinya.

Pak.. Jangan gak-gak nak dong

Whusa. Mengerikan.. mak help me!

Aduhh.. Capek deh... gurunya galak !

Ini Ibu Budi
Ini Ibu Sani
Ini Bapak Budi
Ini Bapak Sani

Adek

1 x 1 = 
1 x 2 = 
1 x 3 = 
1 x 5 = 
1 x 6 = 
1 = 

1 x 3 = 
1 x 6 = 
1 = 

Diri 07
PERUBAHAN PARADIGMA

Behaviorism → Constructivism

Teacher Centered → Student Centered
PENDEKATAN PEMBELAJARAN BARU

PBL

IL

CTL

CL

RME
BACKGROUND (Freudenthal)

Each individual discovers mathematical structures in its own living environment and creates a personal concept of mathematics

Mathematics must be connected to reality, stay close to children and be relevant to society

“Mathematics is a human activity”
3 PRINCIPLES OF RME

- Guided Reinvention
- Didactical Phenomenology
- Emergent Modeling
5 CHARACTERISTICS OF RME

- The use of context
- The use of model
- The use of student’s own production
- Interactivity
- Intertwinement
Dutch Contexts
Indonesian Contexts
ICE BERG (Gravemeijer)

Calculating up to 10

Realistic

formal notation

building stones; number relations

more than just

invest in floating capacity

model material

mathematical world orientation
Models
Student’s Production

54 - 37
Interactivity

Vertical Interaction
Interactivity

Horizontal Interaction
Intertwinement

Prior Knowledge

New Knowledge

New Knowledge

New Knowledge
MATHEMATIZATION (Treffers)

• **Horizontal Mathematization**
  going from the world of life into the world of symbols

• **Vertical Mathematization**
  moving within the world of symbols
PMRI → Adaptation of RME

- bottom-up implementation
- materials and frameworks based on and developed through classroom research
- teachers being actively involved in designing investigations and developing associated materials
- day-by-day implementation strategies that enable students to become more active thinkers
- the development of contexts and teaching materials that are directly linked to school environment and interests of students
Thank You Very Much