

Responsive Pedagogy and Student Learning (RespMath)

The impact of teachers feedback practice on students outcome in Mathematics

Developing responsive pedagogy in lower secondary
school mathematics teaching
An intervention based approach

RespMath Group
June 7th 2016

The RespMath project

- **What?** The project is about developing assessment for learning competencies in mathematics among Norwegian lower secondary school teachers, through *Responsive Pedagogy*.
- *Responsive Pedagogy* is the recursive dialogue between the learner's internal feedback and external feedback provided by significant others throughout the three phases of self-regulation; forethoughts, monitoring and reflection (RespMath team, 2015).
- **How?** RespMath is an intervention study conducted in cooperation with 10 lower secondary schools, 40 math teachers and approx. 1000 9th grade students in the West of Norway.

About the intervention

- 7 months
- Involving the teachers in the development of the content of the intervention
- Will be introduced September 29th 2016
- Will be completed mid-April 2017

Key elements:

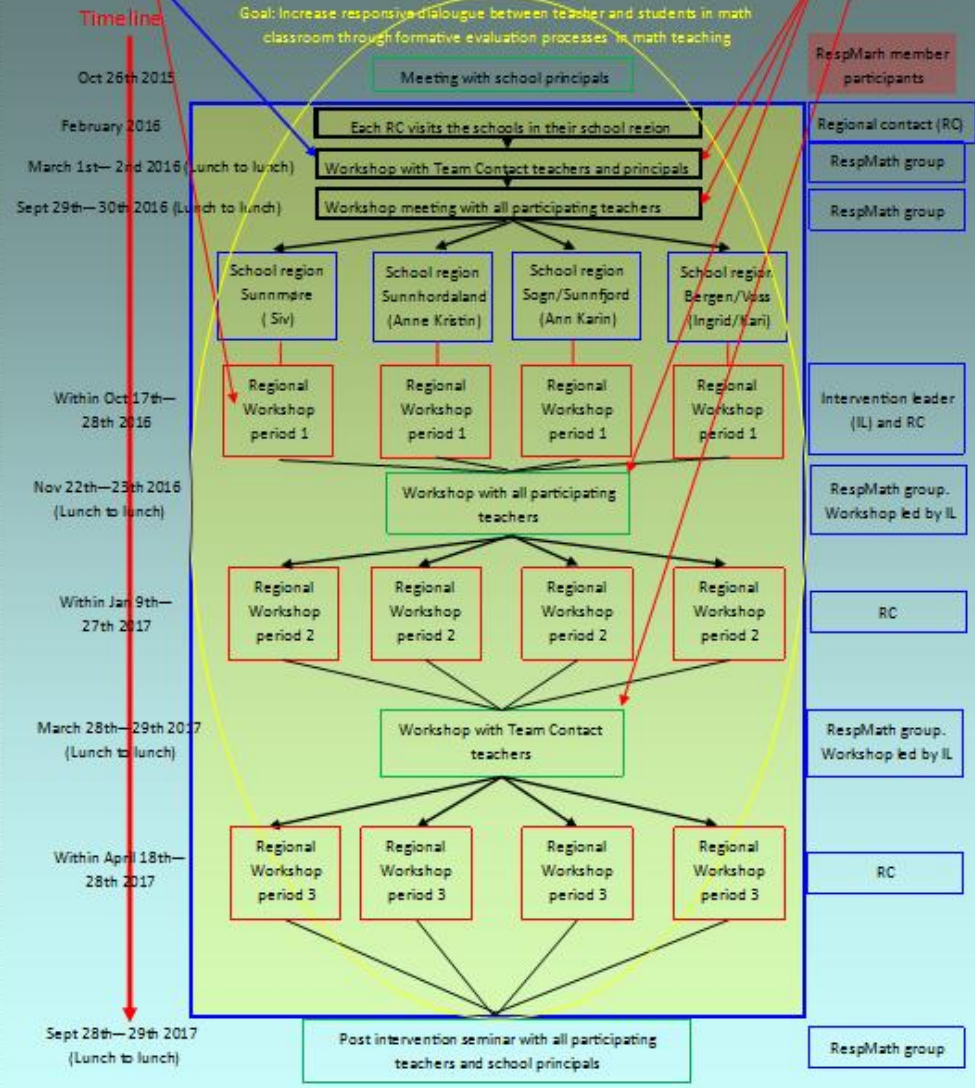
- Feedback practice, self-regulation, self-efficacy
- Teacher learning

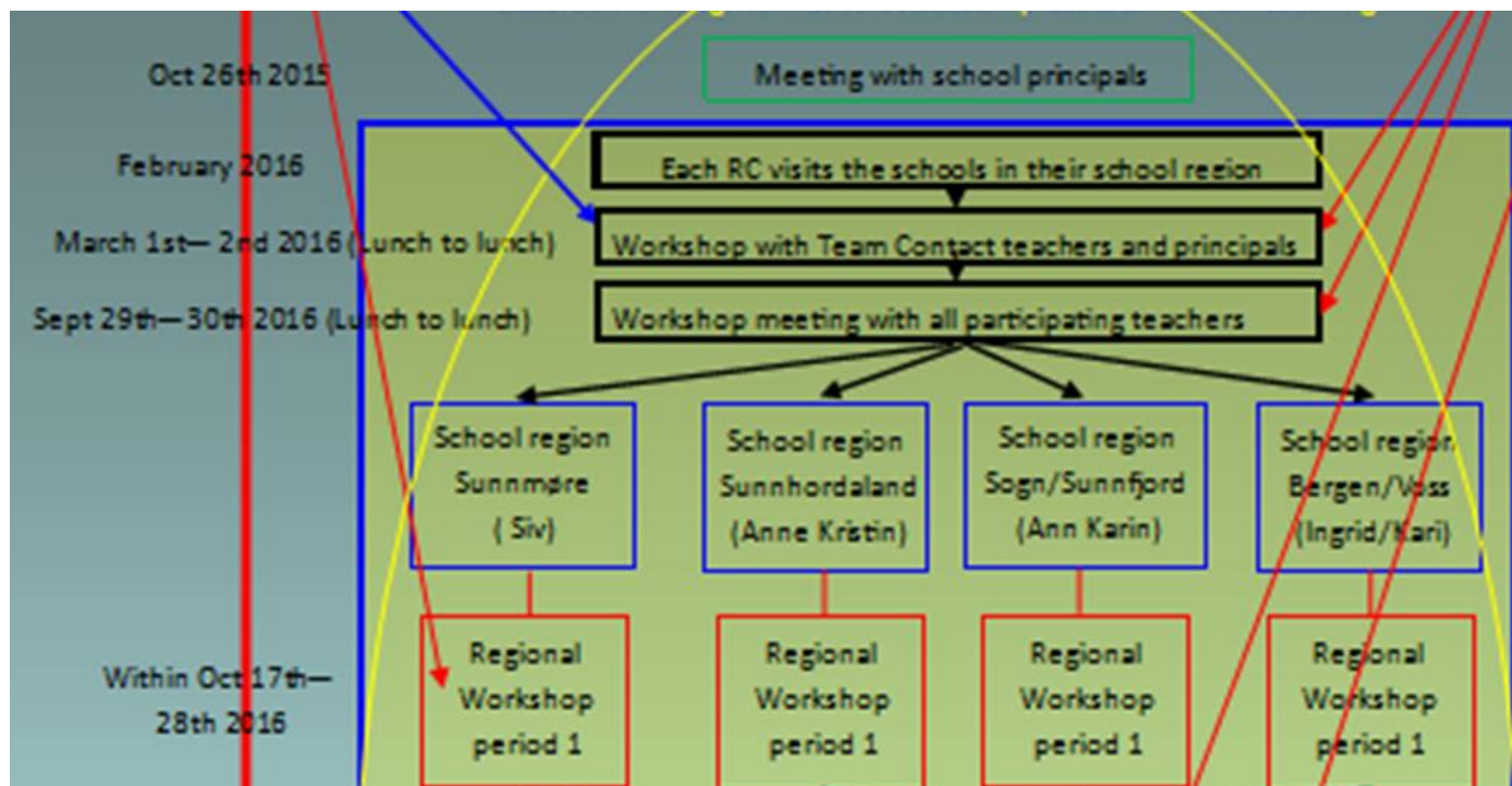
The Team Contact teachers and researchers will together decide which core practices to use in the intervention, based on preliminary discussions at each school in February (at meeting with RC).

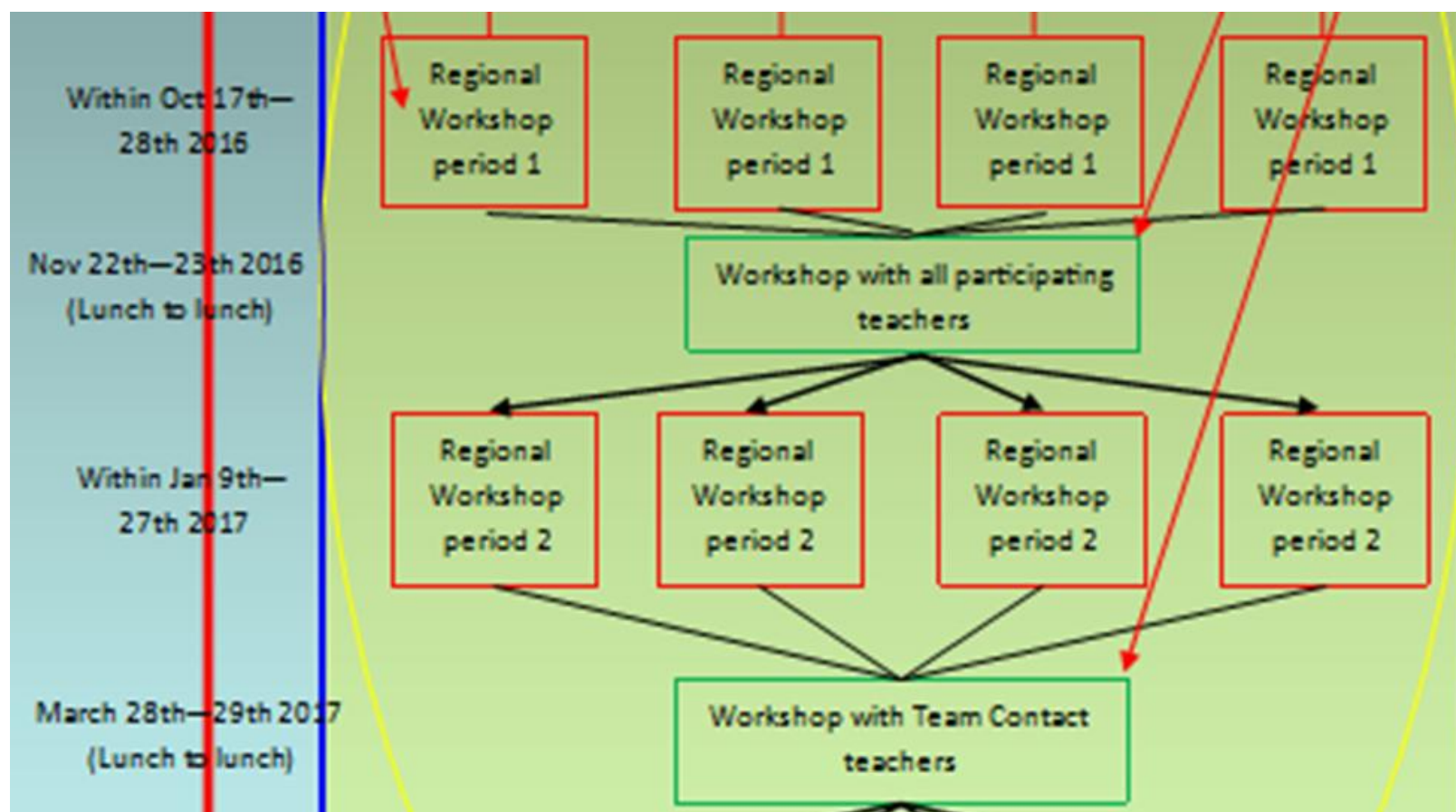
The programs will contain both lectures, presentations, discussion groups and planning

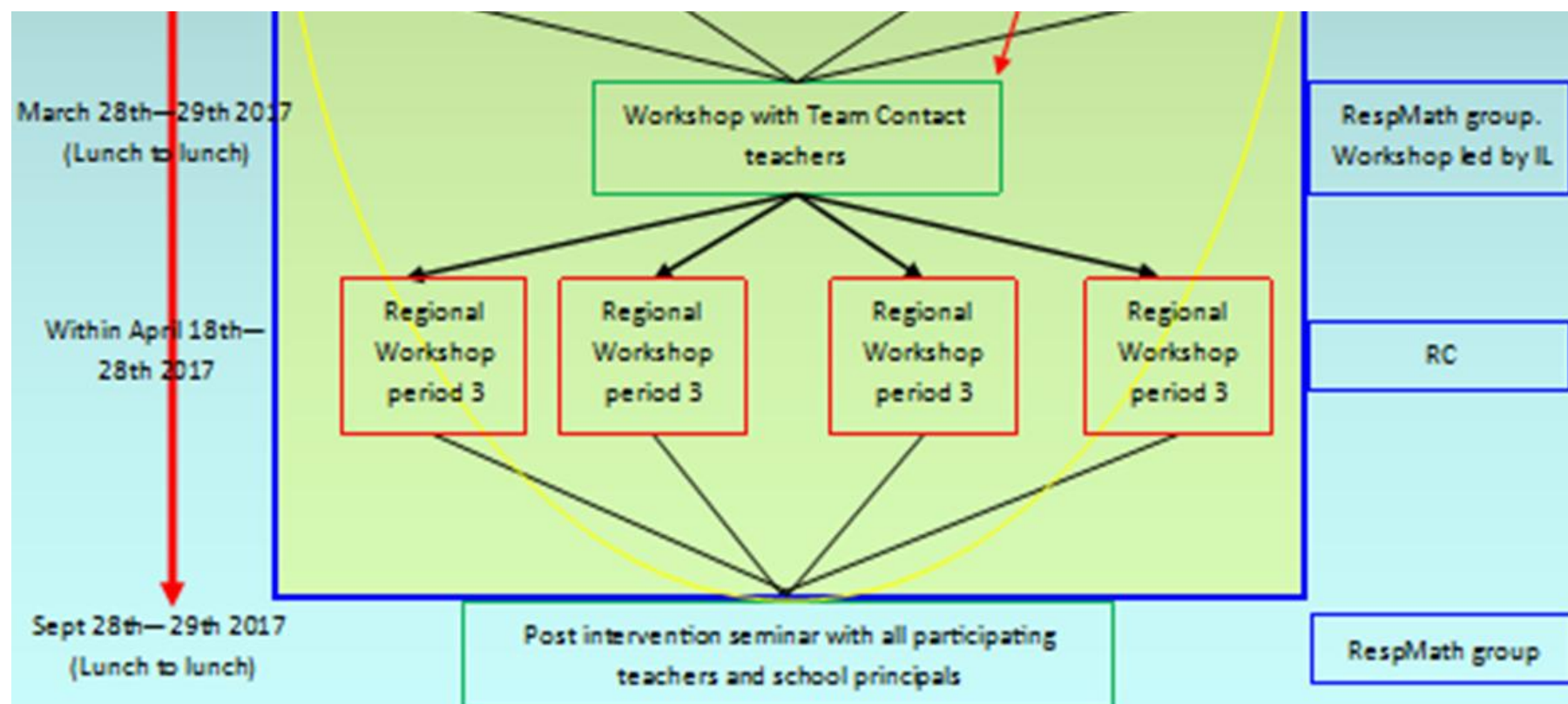
RespMath—Intervention design

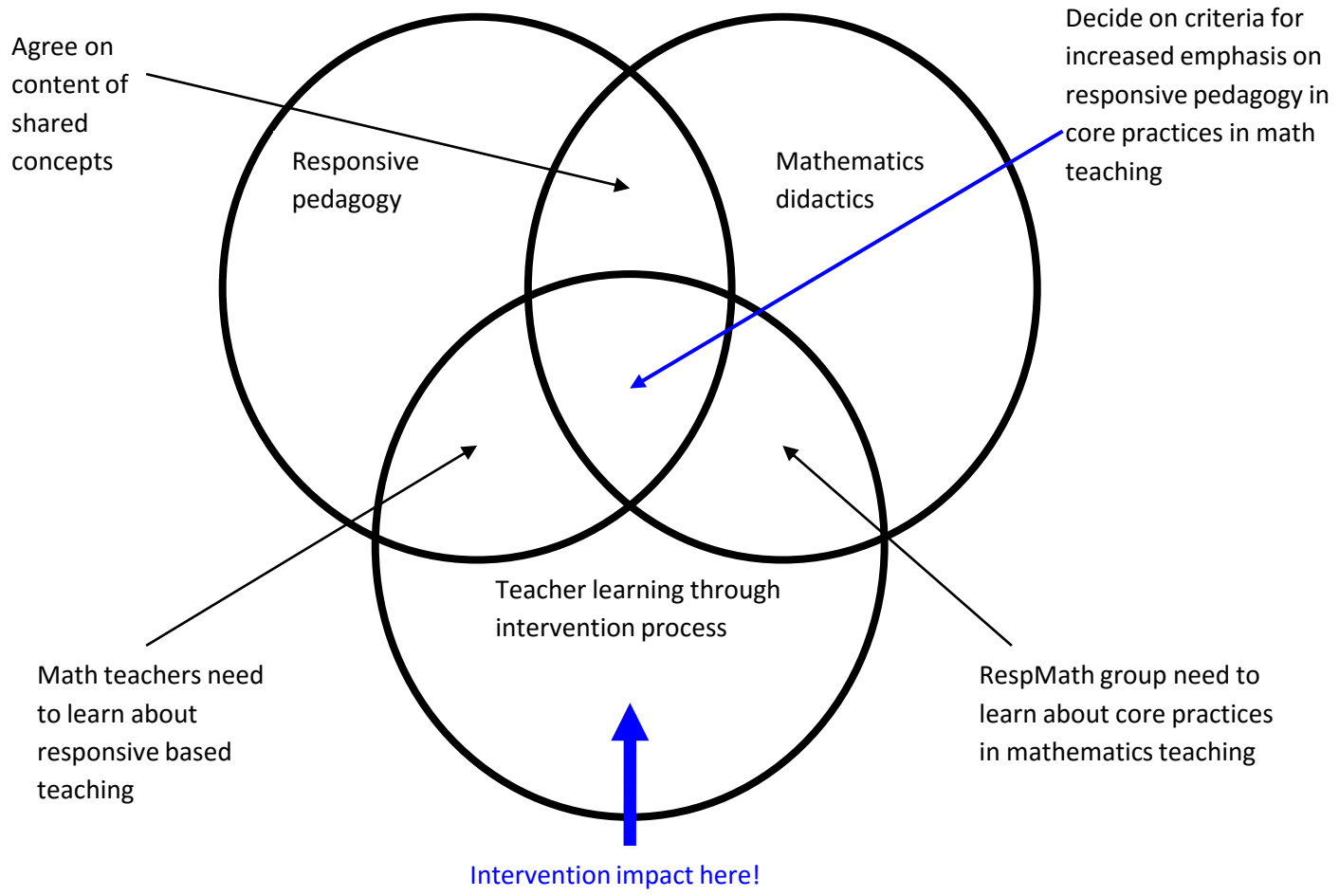
Goal: Increase responsive dialogue between teacher and students in math classroom through formative evaluation processes in math teaching







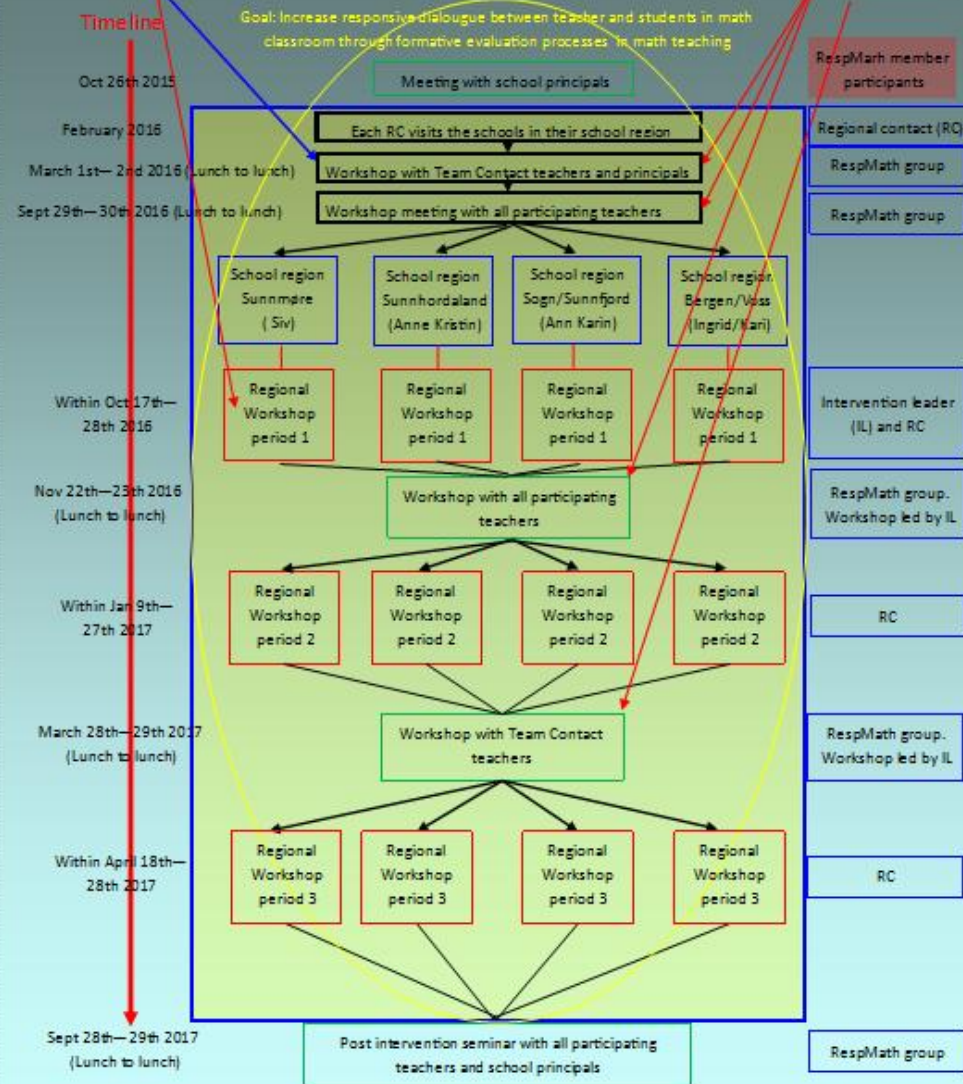




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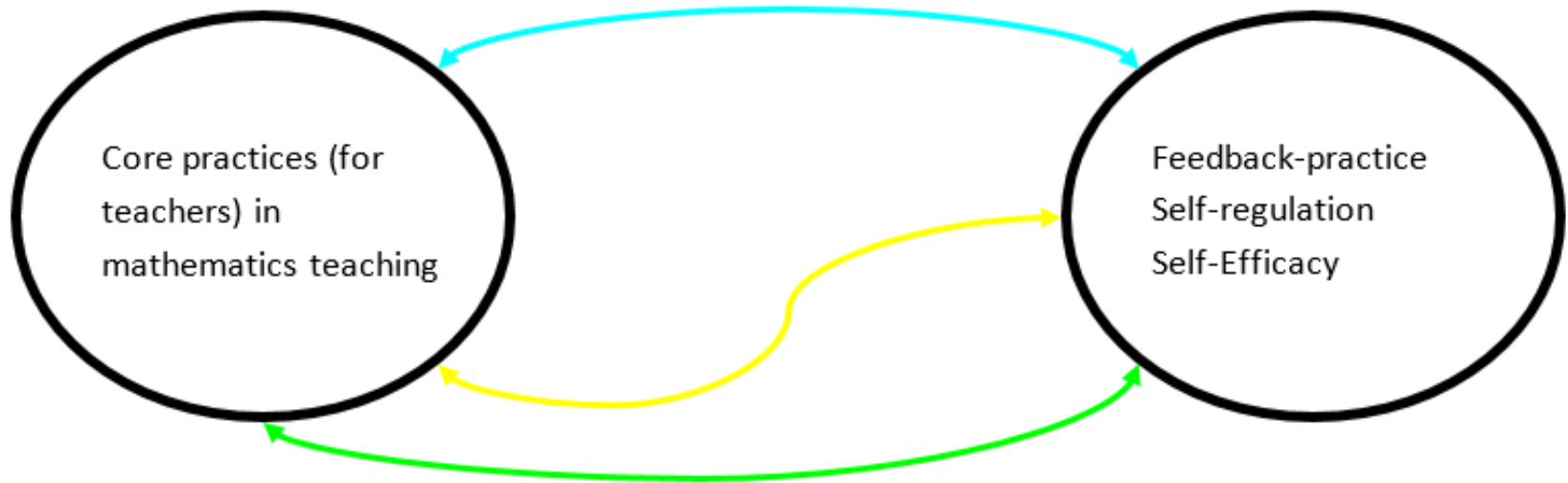
RespMath—Intervention design



Core practices in math teaching	Responsive pedagogy concepts	Feedback-practices	Self-regulation	Self-Efficacy	
Lecturing		↓	↓	↓	Independent of math subjects
Task solving		→	→	→	Independent of math subjects
Homework		→	→	→	Independent of math subjects
Assessment		→	→	→	Independent of math subjects

Regional groups

Preparing for building of **bridges** across challenges with increased emphasis on responsive pedagogy in mathematics teaching



Regional groups

Reflection/Reports on completed intervention
period content*

RespMath offers input for teacher learning

Teachers identify and develop criteria

Teachers learn, and teach

Reflection and feed forward-process

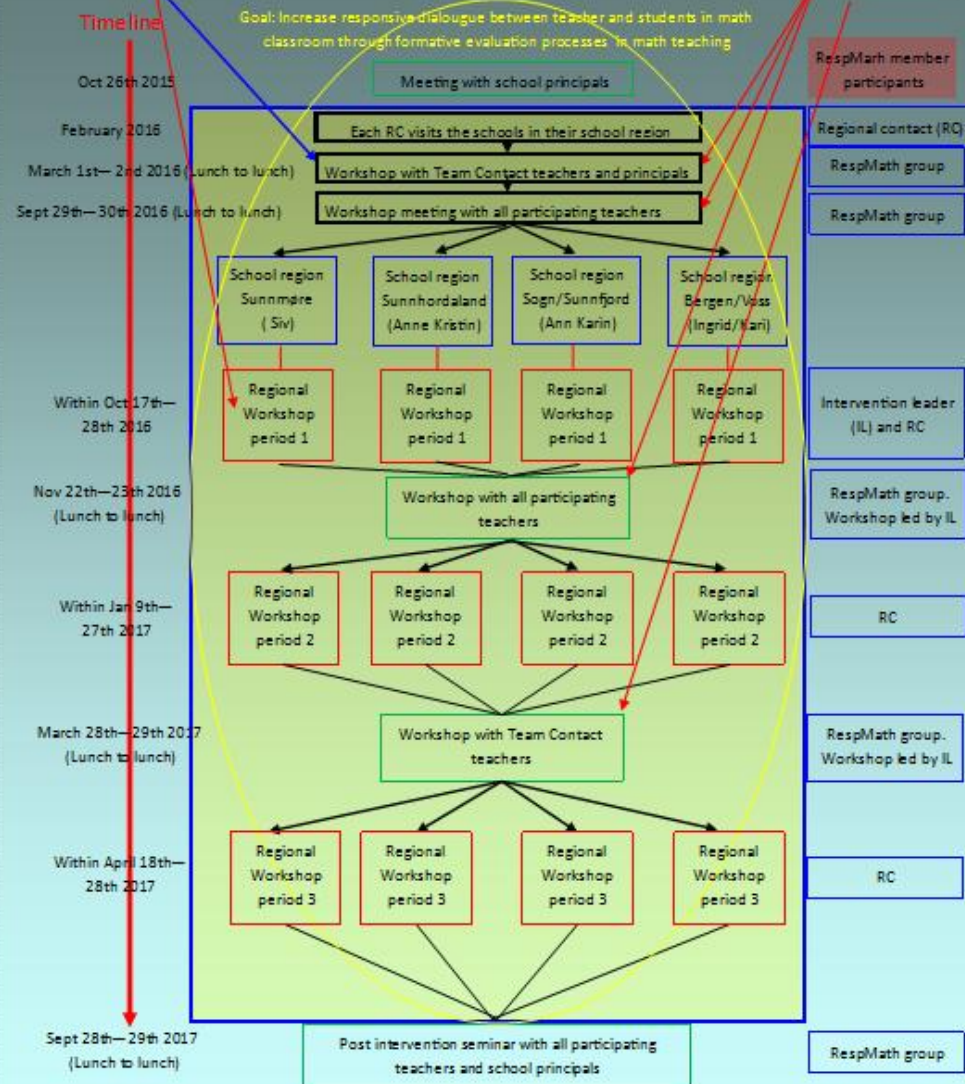
*Not relevant at the introduction of the first intervention period Workshop

Core practices in math teaching	Responsive pedagogy concepts	Feedback-practices	Self-Regulation	Self-Efficacy
Lecturing	RespMath offers input for teacher learning Teachers identify and develop criteria Teachers learn, and teach Reflection and feed forward-process	Reflection/Reports on completed intervention period content	Reflection/Reports on completed intervention period content	Independent of math subjects
Task solving		RespMath offers input for teacher learning	RespMath offers input for teacher learning	Independent of math subjects
Homework		Teachers identify and develop criteria	Teachers identify and develop criteria	Independent of math subjects
Assessment		Teachers learn, and teach	Teachers learn, and teach	Independent of math subjects

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RespMath—Intervention design



For discussion

- The intervention:
 - Challenges to be aware of regarding the design?
 - Challenges to be aware of regarding scientific rigor?