



Repositioning teachers and learners in Science assessment for 21st century learning





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Repositioning teachers and learners

Theoretical framework for study

21st century learning

FLS as context for/enactment of 21st century learning

Science

Learning area

Assessment

NCEA





Research design

What does, and what can, science learning look like in flexible spaces when students and teachers are focussed on NCEA assessment?

Phase One: What does learning look like?

Case study research

- ◇ multi-case study
- ◇ 3 FLS schools
- ◇ inform Phase Two

Phase Two: What can learning look like?

Collaborative action research

- ◇ one FLS school
- ◇ 2-3 cycles





Teacher transitions


Old school

- ◇ Traditional single-cell laboratory classrooms
- ◇ Most equipment stored in laboratories
- ◇ Ownership of space and students
- ◇ Teachers were comfortable and liked this arrangement

New reality

- ◇ Shared commons space
- ◇ Shared, separate, move-in/move-out laboratory areas for practical work
- ◇ Equipment stored centrally, collected prior to practical work
- ◇ A loss, a repositioning






School Two: A loss


Preliminary analysis / findings

Science subject identity

- knowledge-based external NCEA assessments
- task-based internal NCEA assessments
- practical work

Science teacher practice-identity

- teacher-led transmission and repetition for content learning
 - responsiveness and spontaneity in practical work and demonstrations
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School Two: A repositioning

Preliminary analysis / findings

Science subject identity

- knowledge-based external NCEA assessments
- task-based internal NCEA assessments
- practical work

Science teacher practice-identity

- student-led, personalised approaches
 - teacher-expert/ repetition online
 - team teaching
 - *practical work*
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