

# Jodie Hunter: Strength based mathematics learning for diverse students

## Our current context:

Disparities in ethnic groups learning outcomes:

- 11% Pasifika achievement
- 26% Maori achievement

(measured at year 8)

This is not only a Pasifika issue—Asian students have reported negative attitudes towards mathematics education too.

Utility of Mathematics:

Students frequently do not know how they use maths outside of the classroom.

Schooling practices reflect the cultural capital of dominant cultural groups—such as:

- Ability grouping
- Focus on individual successes

“Whenever I am doing maths, I can’t remember that I am Samoan” - Sose (student)

## The Goal:

My culture is in everything I do.

## How to Facilitate Inquiry?

Be purposeful in selection of presentations & group sharing to build up ideas.

- Build up to the answer
- Allow participation

Build on pre-existing knowledge of students

- Use culturally and experientially familiar examples

Explore outcomes students experience when exiting a problem.

Engage with parents and the students extra curricular interests to improve engagement.

Be flexible to students needs and understandings.  
Adapt the class plan if needed

## Developing a culturally responsive classroom context:

Draw on culturally sustaining pedagogy:

Maintain ones own identity while succeeding in Math & Stat learning.

Implementation in Jodie’s research:

- Professional/Personal Development workshops
- In-class mentoring (teachers learning alongside children)
- Video Reflections
- Work alongside parents

Place and express core values in the classroom

How are these values placed within the classroom?  
How does classroom context and exercises reflect these values?

Connect with students lived reality:

Develop teaching contexts from the community and families of students

E.g. Activities participated in at home, cultural artefacts (e.g. tivaevae & algebraic learning)

Draw on this knowledge & context to shape learning and to engage with communities.

Family & Collective values.

Engage in different types of learning activities

Redefine what it means to be doing math—not just being lectured at in a classroom; practical applications

Provide multiple ways for students to demonstrate their strengths

Allow translanguaging, this allows students to communicate their learning in their most familiar/comfortable language

Remove ability hierarchies

Don’t dumb down math language, explain what new terms and complex terms mean.