



Contribution of Resilience in Children's Learning

Jason Timmins, ERO, 1 February 2019



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

“Our students lack resilience”

“We have students who come to school, but don’t take their academic work seriously or do not see any point in doing school work”

“New students find it difficult to overcome challenges at school”



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Non-cognitive skills are important at school and later in life

- Doing well in school (good grades) are more strongly linked with tertiary education success and career success later in life
- Students who persevere and have strong academic behaviours (participating in class and doing the work), do well at school

“There is a danger that a lack of perseverance and effort can be misdiagnosed, not due to a lack of non-cognitive skills, but because students lack motivation or because they do not care”



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Ask the students

- The “North Island schools” could better diagnose the problems with non-cognitive factors
- We collected some NZ data to look at the relationship between non-cognitive factors and students’ learning



Ko te Tamaiti te Pūtaka o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Presentation outline

- Research questions
 - Non-cognitive factors and their link to achievement
 - Model
- Student survey & data collection
- Survey results
- Summary
- “So what” for policy and practice



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Cognitive skills

- Thinking
- Using language, symbols and text
- Content knowledge

Non-cognitive skills

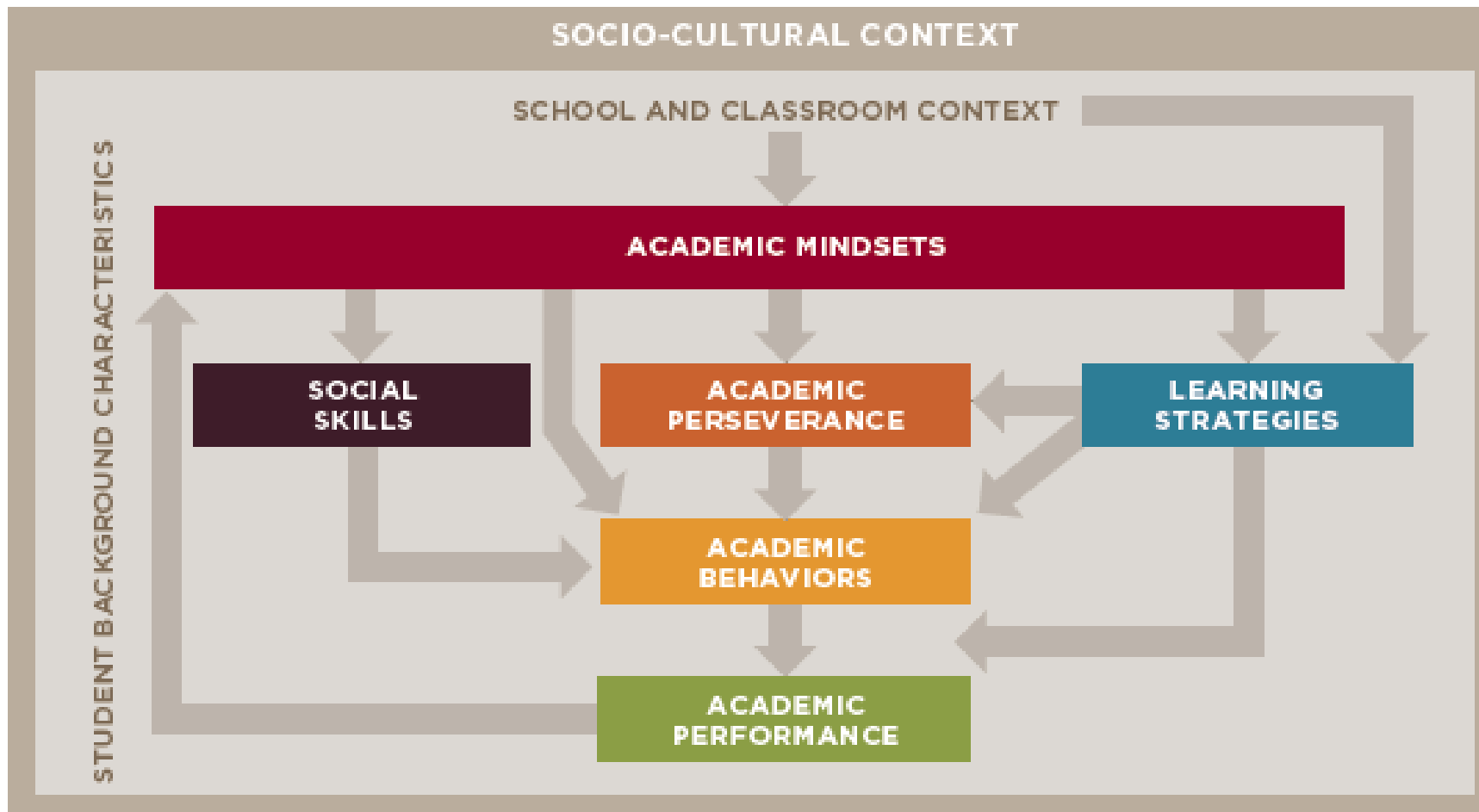
- Relating to others
- Managing self
- Participating and contributing
- Study skills
- Help-seeking behaviours



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga



Source: Farrington et. al. 2012



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Survey questions grouped into four concepts

Concepts	Description	Link to model
Belonging	<i>Feeling that they are part of the school community</i>	Academic mindset
Growth mindset	<i>Importance of working hard. Knowing they can get smarter if they study</i>	Academic mindset
Self-efficacy	<i>Strategies when they get stuck etc.</i>	Learning strategies
Grit	<i>Not giving up. Finishing their work</i>	Perseverance

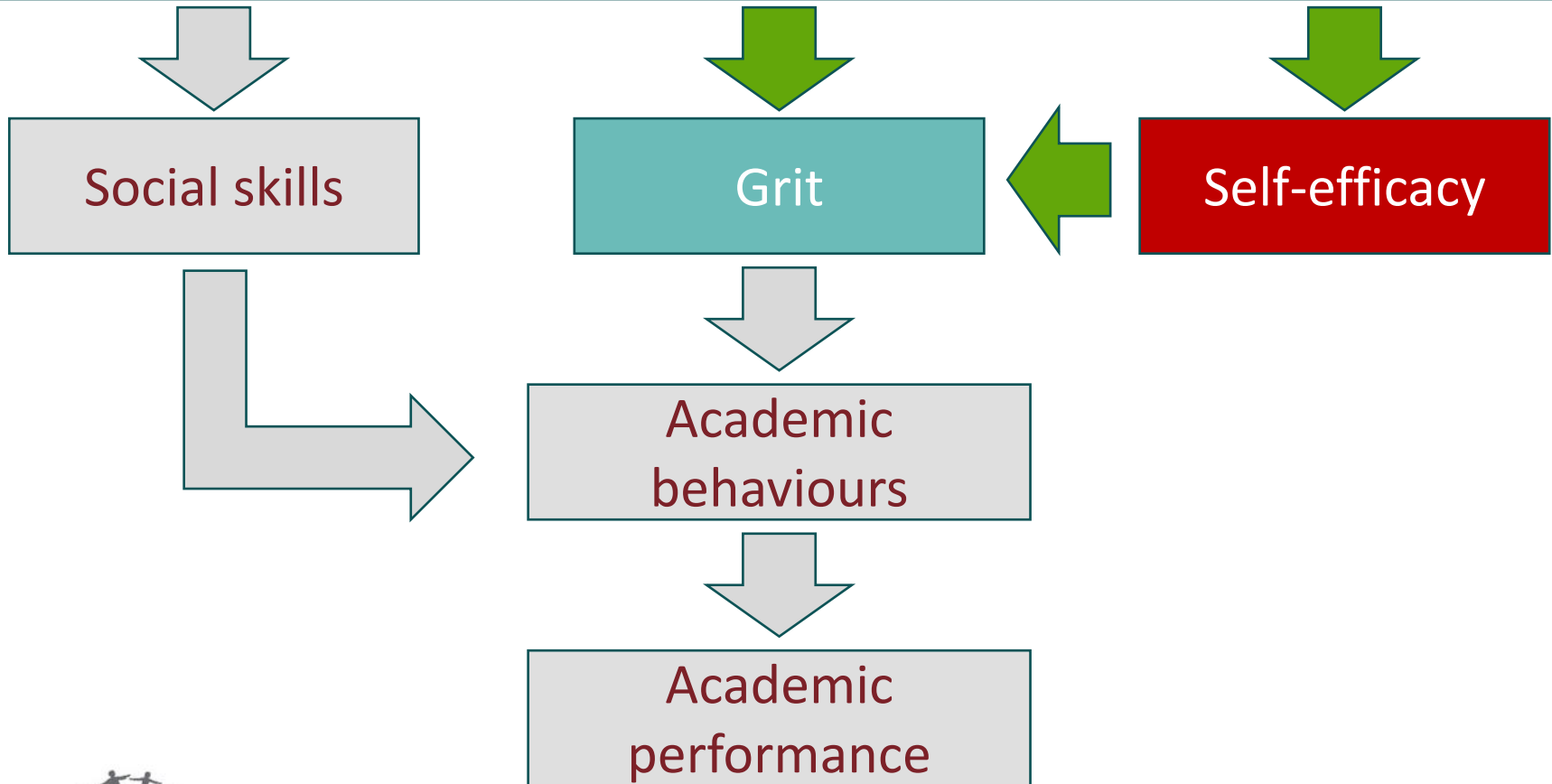


Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Belonging / Growth mindset



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Is there a relationship between resilience and grit

1. Are there disparities in the level of grit between children?
2. Is there a relationship between grit and resilience?
3. Can disparities in grit between children be explained by differences in resilience?



Data collection

- Online survey was run in schools in a Kahui Ako / Community of learning in the North Island
- 10 minutes average completion time
- 2,500 responses from Years 4-11
 - ~ 80% of Year 4-8 students responded
 - ~ 30% of Year 9-11 students responded
 - Year 12 and 13 student response numbers were too low and have been excluded from the analysis



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Survey concepts and questions

Belonging	Self-efficacy	Growth mindset	Grit
<p>I can be myself at school</p> <p><i>I feel included</i></p> <p>I can talk to my teachers</p> <p><i>My teachers understand me</i></p>	<p>I like working with others</p> <p><i>Mistakes help me learn</i></p> <p>I know what to do when I have problem</p>	<p>I know I can become smarter</p> <p><i>I feel positive about my future</i></p> <p>I learn from my mistakes</p> <p><i>I get to do interesting activities at school</i></p>	<p>I want to be the best at what I do</p> <p><i>I always finish what ever I begin</i></p> <p>I don't give up easily</p> <p><i>I am a hard worker</i></p>

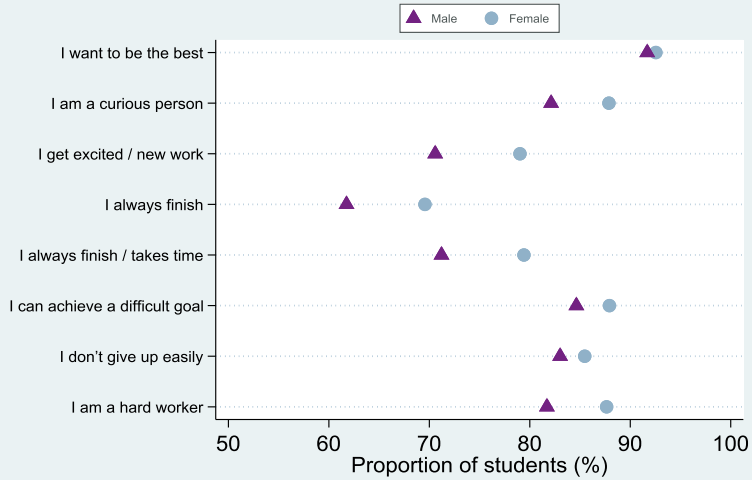


Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Students who agree or strongly agree with the questions about Grit

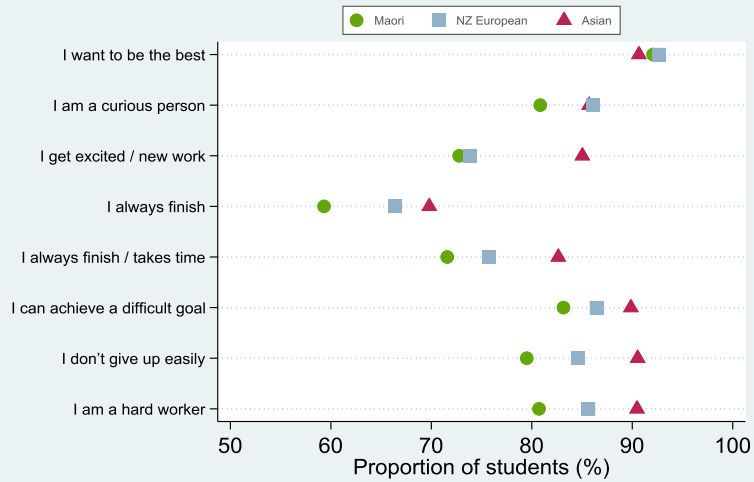


Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Students who agree or strongly agree with the questions about Grit

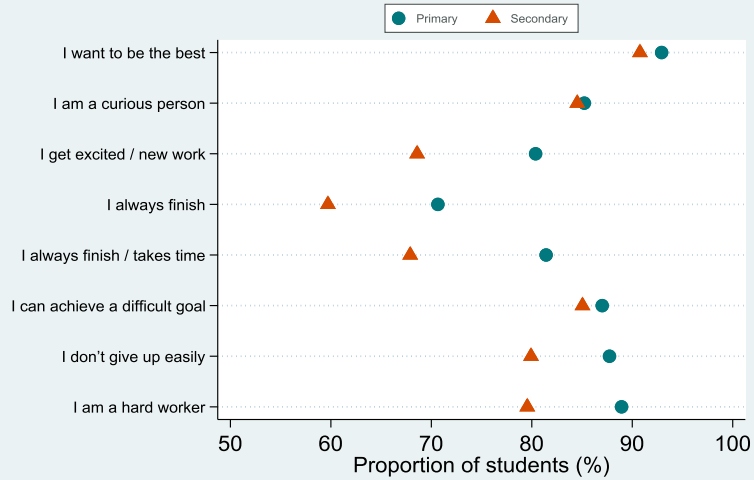


Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Students who agree or strongly agree with the questions about Grit

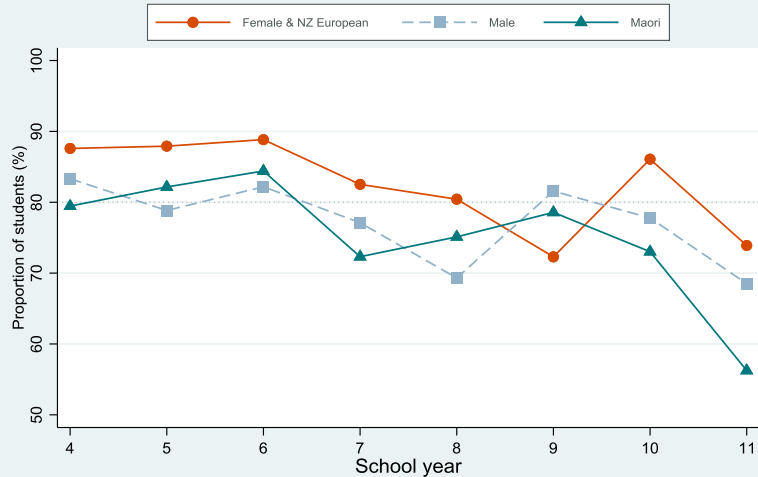


Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Students who agree or strongly agree with the questions about Grit

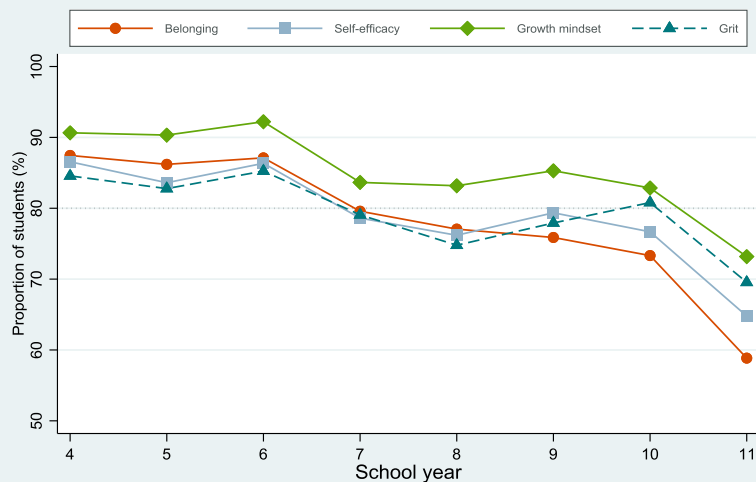


Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Students who agree or strongly agree with the questions about Resilience and Grit

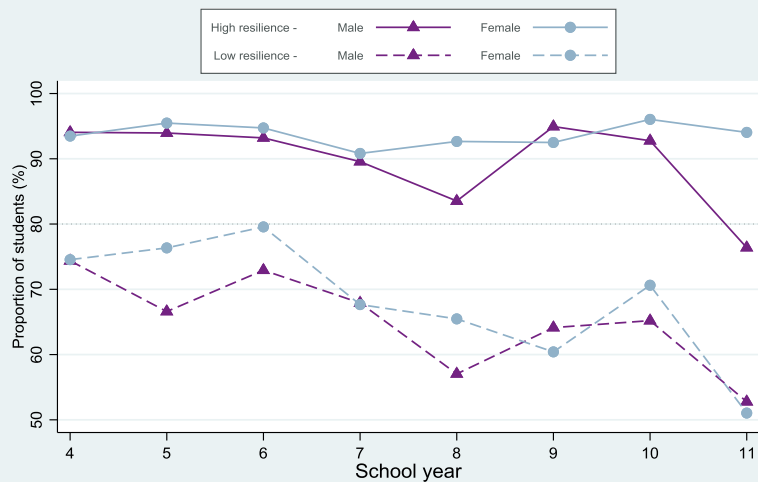


Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Students who agree or strongly agree with the questions about Grit

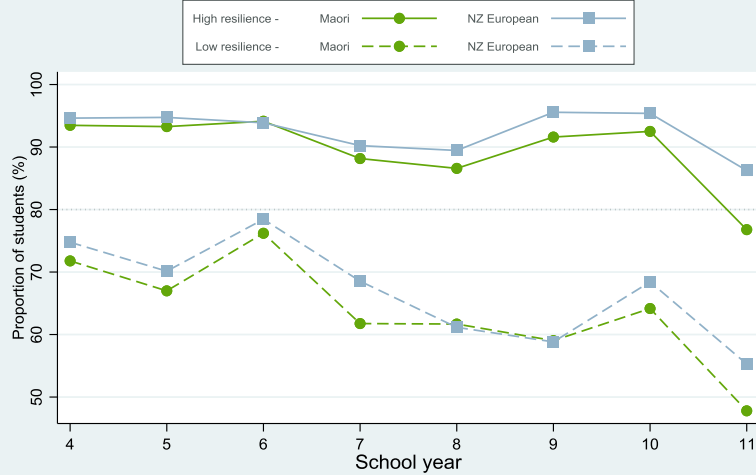


Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Students who agree or strongly agree with the questions about Grit



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga

Summary

- Older children, boys and Māori children are less likely to agree with questions about grit
- Grit and resilience levels appear to decline with age
- Resilient children are more likely to agree that they try hard and persevere at school (grit)
- Resilience may explain some of the difference in grit between boys and girls and Māori and non-Māori children



Can we make children more resilient?

- Relationship between non-cognitive factors (resilience) and doing well at school and between doing well at school and long-term outcomes
- Hard to change academic grit/perseverance directly without addressing academic mindset and effective learning strategies (resilience)
- Evidence that academic mindset is something you can change in schools
- Developing resilience is not just important at school, but later in life as well



Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter



Education Review Office
Te Tari Arotake Mātauranga