
Comparison of Cycling Habits, Confidence, Support and Knowledge Among Dunedin Children and Adolescents

Dana Lawrie BSc¹, Tessa Pocock BPhEd (Hons)¹, Chiew Ching Kek BA¹, Siobhan McArthur¹, Charlotte Flaherty BCom², Christina Ergler PhD³, Sandra Mandic PhD¹.

¹Active Living Laboratory, School of Physical Education, Sport and Exercise Sciences, University of Otago, Dunedin,
²Dunedin City Council, Dunedin, ³Department of Geography, University of Otago, Dunedin, New Zealand



Cycle Skills Training



???

Purpose:

Compare cycling habits, confidence, support and knowledge of road rules among female children and adolescents from Dunedin



Method

- Children's' characteristics (n=233):

- Age: 11.0 ± 0.9 years
- Gender: 100% girls
- 3 primary schools

- Adolescents' characteristics (n=205):

- Age: 13.8 ± 0.8 years
- Gender: 100% girls
- 2 secondary schools

Pre-Training Date: _____
Cycle Skills Training: Grade 1 Grade 2

Dunedin City Council Cycle Skills Training Programme
Cyclist skills *pre* training survey

1. What is your name?
2. How old are you? ____ years
3. Are you male or female? (✓) <input type="checkbox"/> Male <input type="checkbox"/> Female
4. Which ethnic group do you belong to? (✓) <input type="checkbox"/> New Zealand European <input type="checkbox"/> Māori <input type="checkbox"/> Samoan <input type="checkbox"/> Cook Island Māori <input type="checkbox"/> Tongan <input type="checkbox"/> Niuean <input type="checkbox"/> Chinese <input type="checkbox"/> Indian <input type="checkbox"/> Other (please state): _____
5. What is the name of your school?
6. What year are you in at school?

7. How many cars (or vans, trucks, or utes) do you have at home? (✓)
 None One Two Three Four or more

8. Which of the following things do you have at home? (✓)
A bike that is in a good condition that you could use to get to school Yes No
A bike helmet that is in a good condition Yes No

9. How often do you ride your bike? (✓)
 I don't have a bike About once a month
 Never At least once a week
 A few times a year Every day

10. Have you ever ridden your bike on the road? Yes No

11. How long would your journey take if you cycled from home to school? (✓)
 1-5 minutes 6-10 minutes 11-20 minutes 21-30 minutes 31+ minutes
 I don't know

Data analysis

**Independent
t-tests**

**Chi-Square
tests**

Results

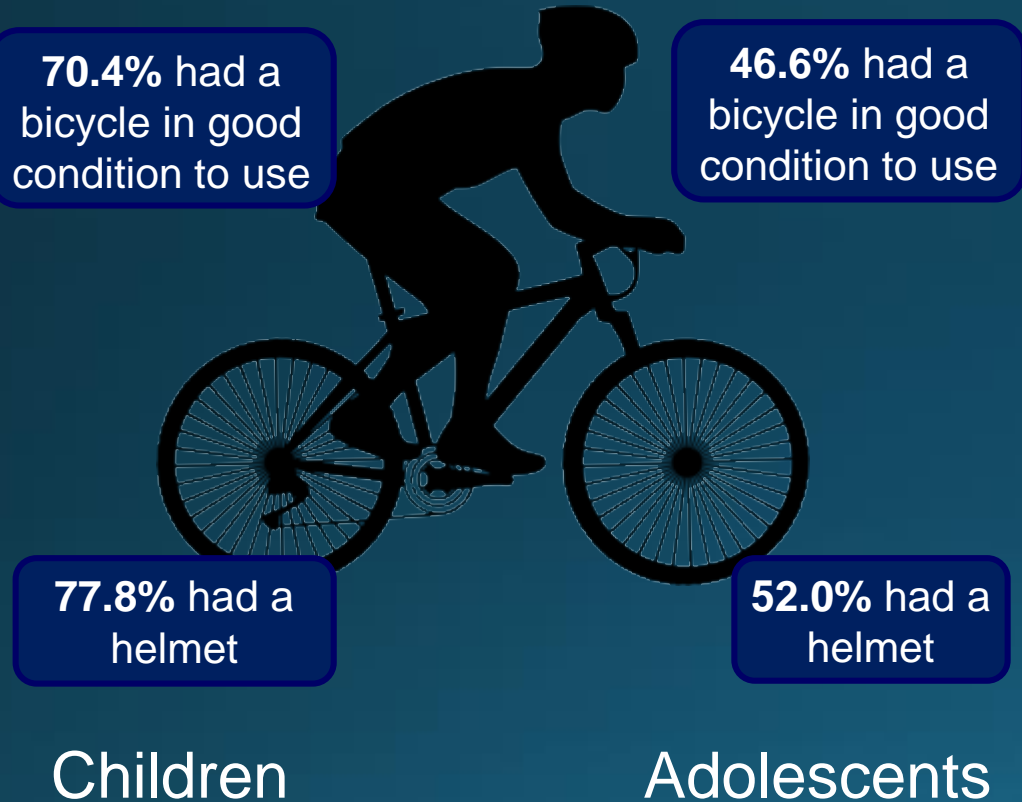
Current transport to school

Children		Adolescents
56.0%	By car	34.6%
2.6%	By bus	19.0%
26.3%	Walking	34.6%
2.2%	Cycling	1.5%
12.9%	Other	10.2%

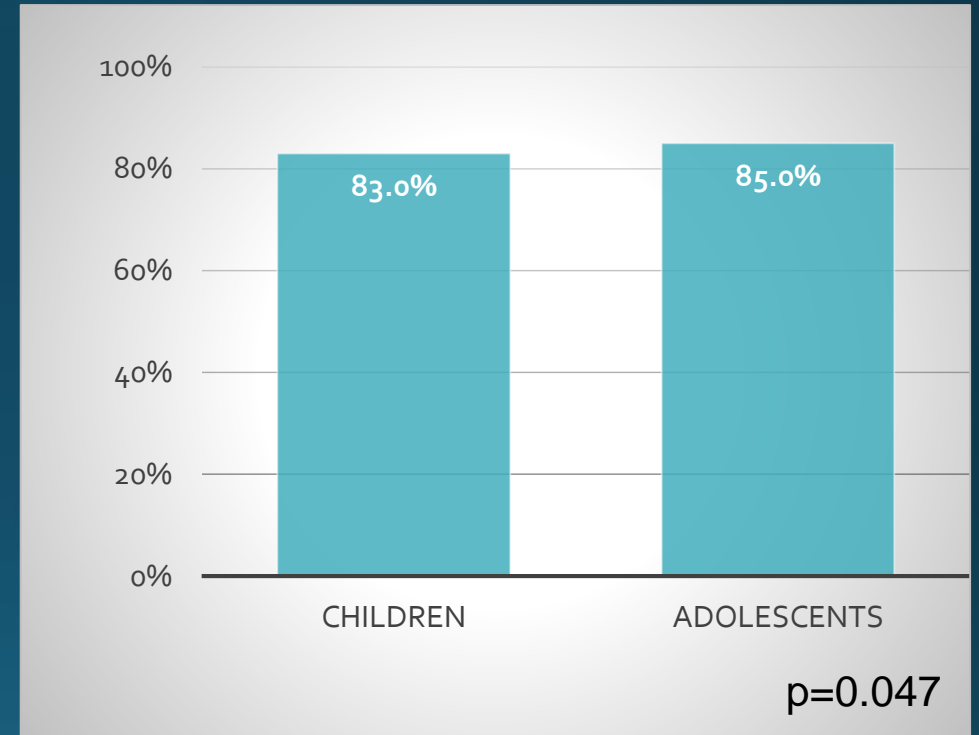
Preferred transport to school

Children		Adolescents
29.0%	By car	48.8%
1.3%	By bus	4.9%
23.4%	Walking	28.8%
29.0%	Cycling	8.3%
17.3%	Other	9.3%

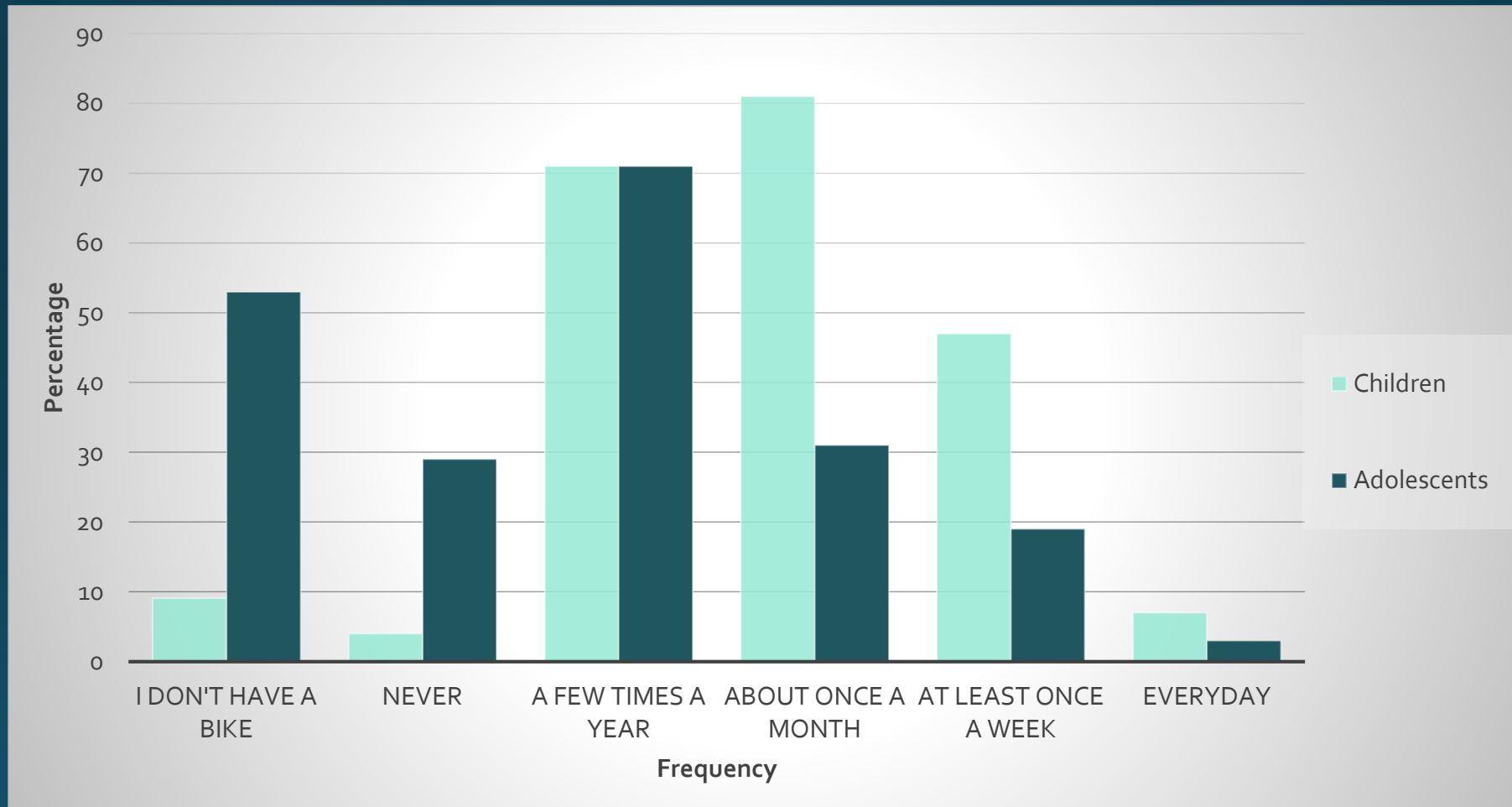
Available resources



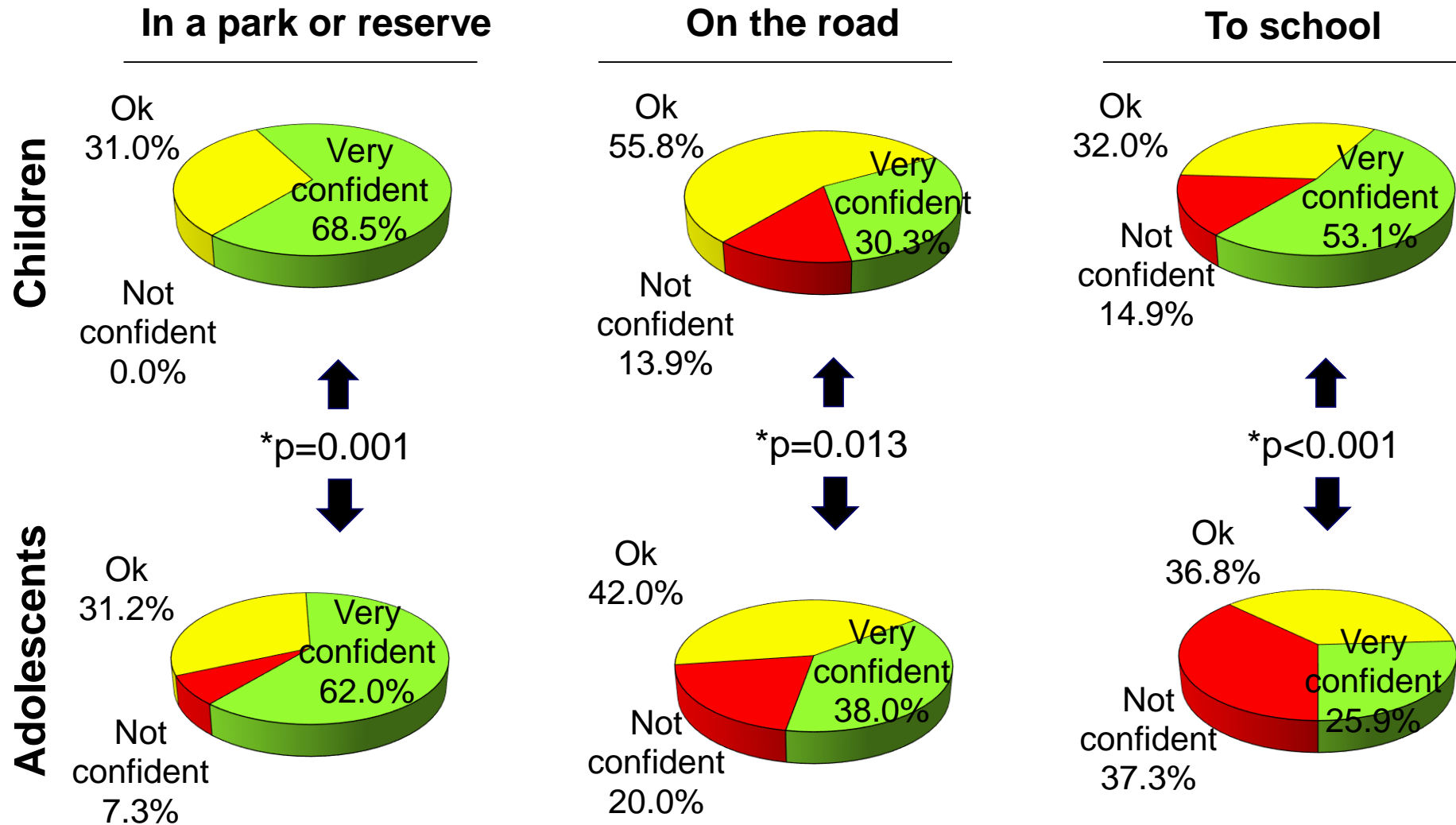
Average knowledge score



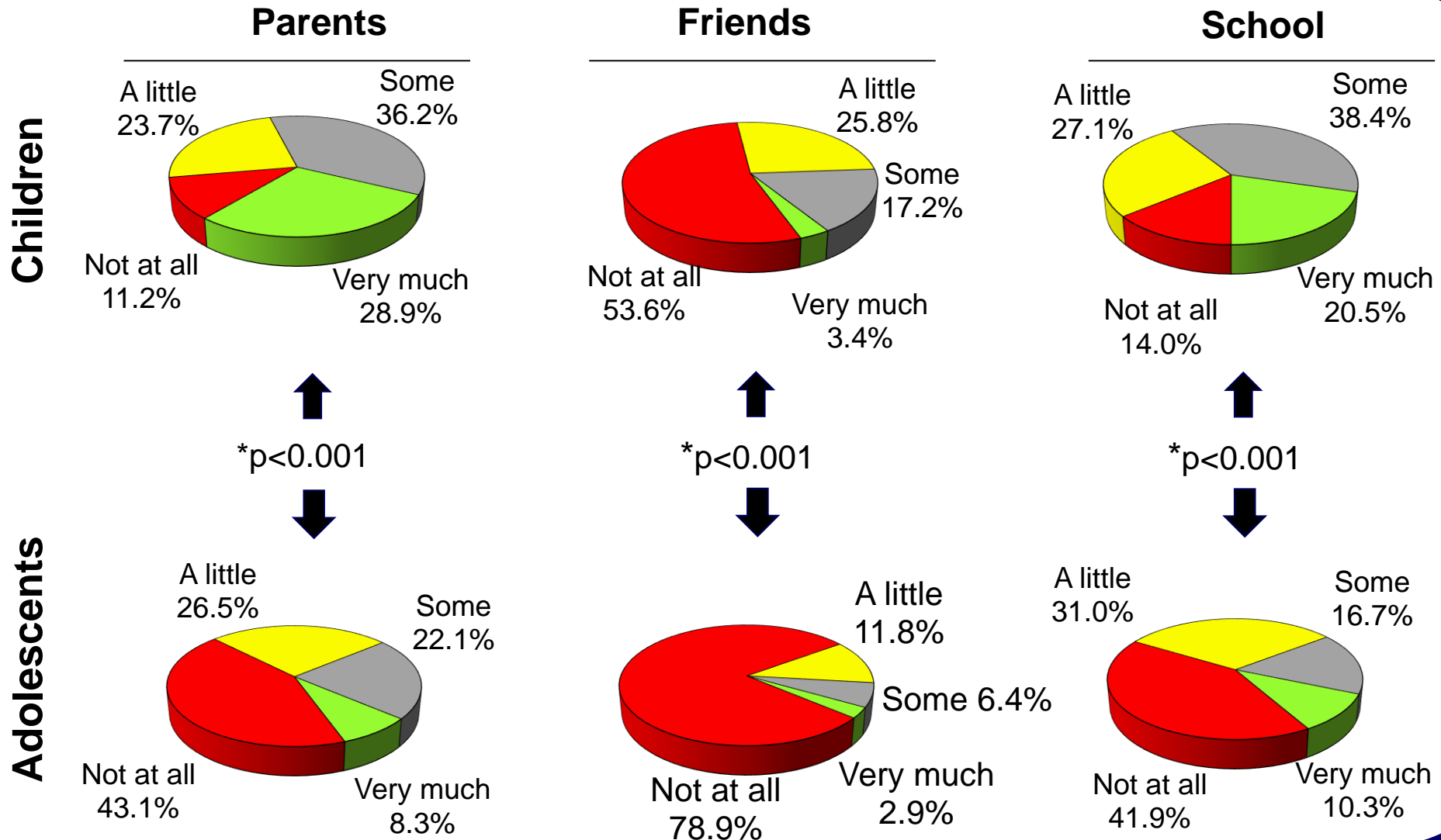
Frequency of cycling



Confidence



Perceived Social Support



Strengths

- Provides information to adapt CST for adolescents
- NZTA standardised questions
- Study design easily replicated

Limitations

- Cross sectional design
- Restricted to female students
- Generalisability
- Social desirability bias

Conclusion



- Children and adolescents have sufficient knowledge of road rules
- Both groups lack confidence and encouragement
- Adolescents cycle less frequently, are less confident cycling in parks/reserves or to school, and receive less social support.
- Adolescents are less likely to have access to a bike and helmet



Future interventions for adolescents

- Improve cycle skills
- Increase confidence
- Provide social support and encouragement



Acknowledgements

Dr. Sandra Mandic

Rose Dovey, SDCP Project Manager

Scarlett Hagen

Everyone involved in Cycle Skills Training

