

EVALUATING A BICYCLE EDUCATION PROGRAM FOR CHILDREN:

Findings from Montreal, Canada

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PURPOSE

Many cities are developing policies that **promote cycling** due to the positive environmental, economic, and health benefits. Promoting bicycle usage amongst **school-aged children** is particularly important as it is one way to encourage more active lifestyles.

The **purpose** of this paper is to **evaluate** an on- and off-**bicycle education program** for school-aged children in Montreal, Canada with the goal of understanding how education influences children's and parents' cycling **behavior** and **attitudes**.

METHODOLOGY: SURVEY ANALYSIS

Using qualitative measures and descriptive statistics this study analyses pre- and post-**program survey results** from **children** who participated in the program and their **parents**.

Four surveys compared using Chi-Square tests of independence:

- Children: before (80) & after (50)
- Adults: before (51) & after (24)

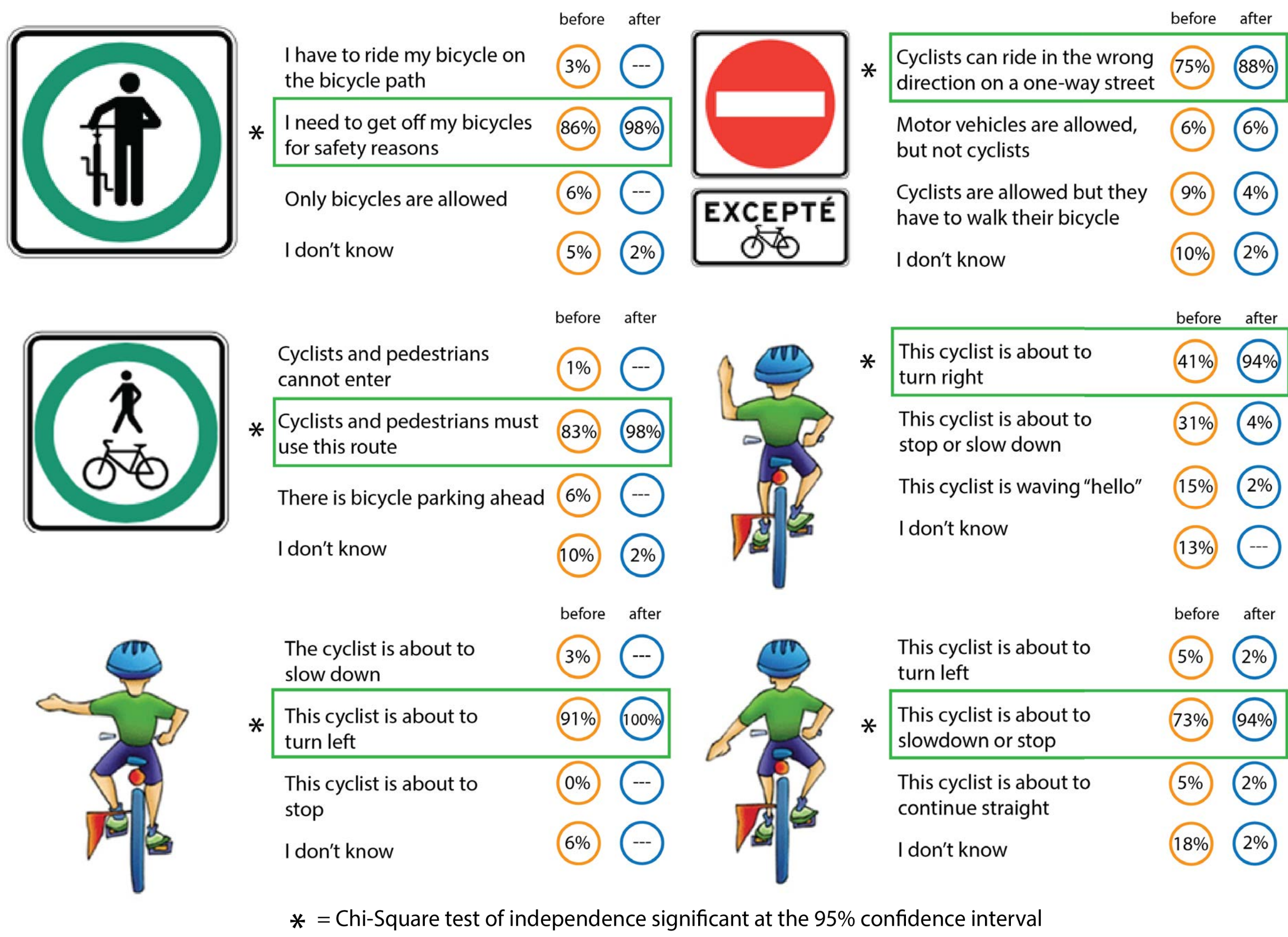
Summary Statistics:

ADULTS:		
Gender:	Number of people in household:	Employment:
Male: 35%	2 people: 16%	Employed full-time: 61%
Female: 65%	3 people: 14%	Employed part-time: 18%
	4 people: 49%	Self-employed: 8%
	5 people: 18%	Unemployed: 8%
	6 people: 2%	Student: 6%
	Prefer not to answer: 2%	
Average age:	Number of children under the age of 16 in the household:	Where were you raised?
44 years old	1 child: 24%	Montreal: 24%
	2 children: 59%	City in Quebec: 27%
	3 children: 10%	City in Canada outside of Quebec: 6%
	4 children: 4%	Europe: 20%
	Prefer not to answer: 4%	Other: 24%
Education:	Number of people in the employed full-time:	Did you grow up in an area that was?
College or less: 20%	1 person: 55%	Urban: 39%
Undergraduate degree: 33%	2 people: 41%	Suburban: 22%
Graduate degree: 43%		Rural: 39%
Prefer not to answer: 2%	Prefer not to answer: 4%	
CHILDREN:		
Gender:	Average age:	
Male: 56%	11 years old	
Female: 44%		

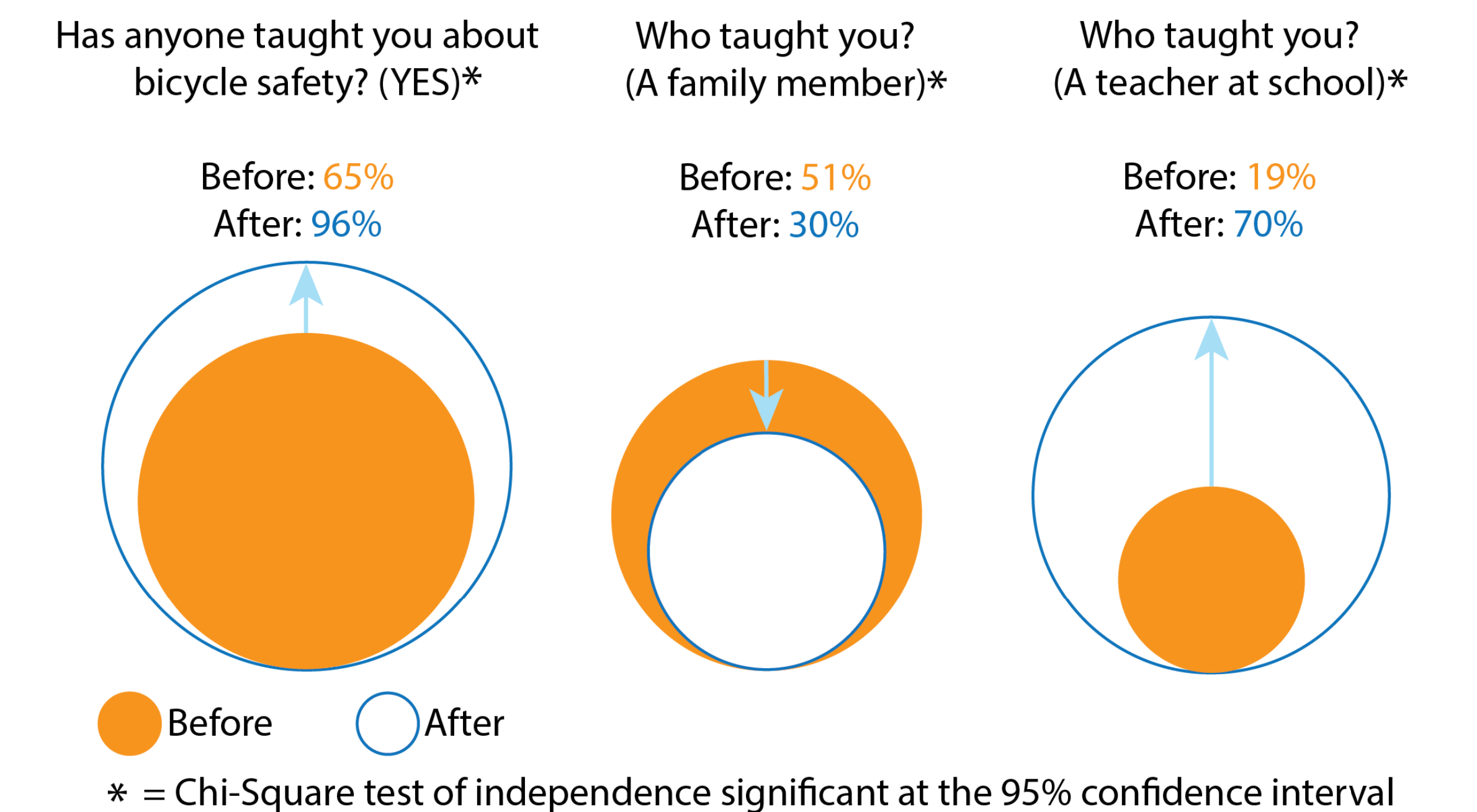
SAMPLE QUESTIONS: KNOWLEDGE TEST

Results show that children's **knowledge** of **bicycle safety increased** and that participants made significant improvements in knowing bicycle-specific street signs and hand signals.

Knowledge of signs and signals:



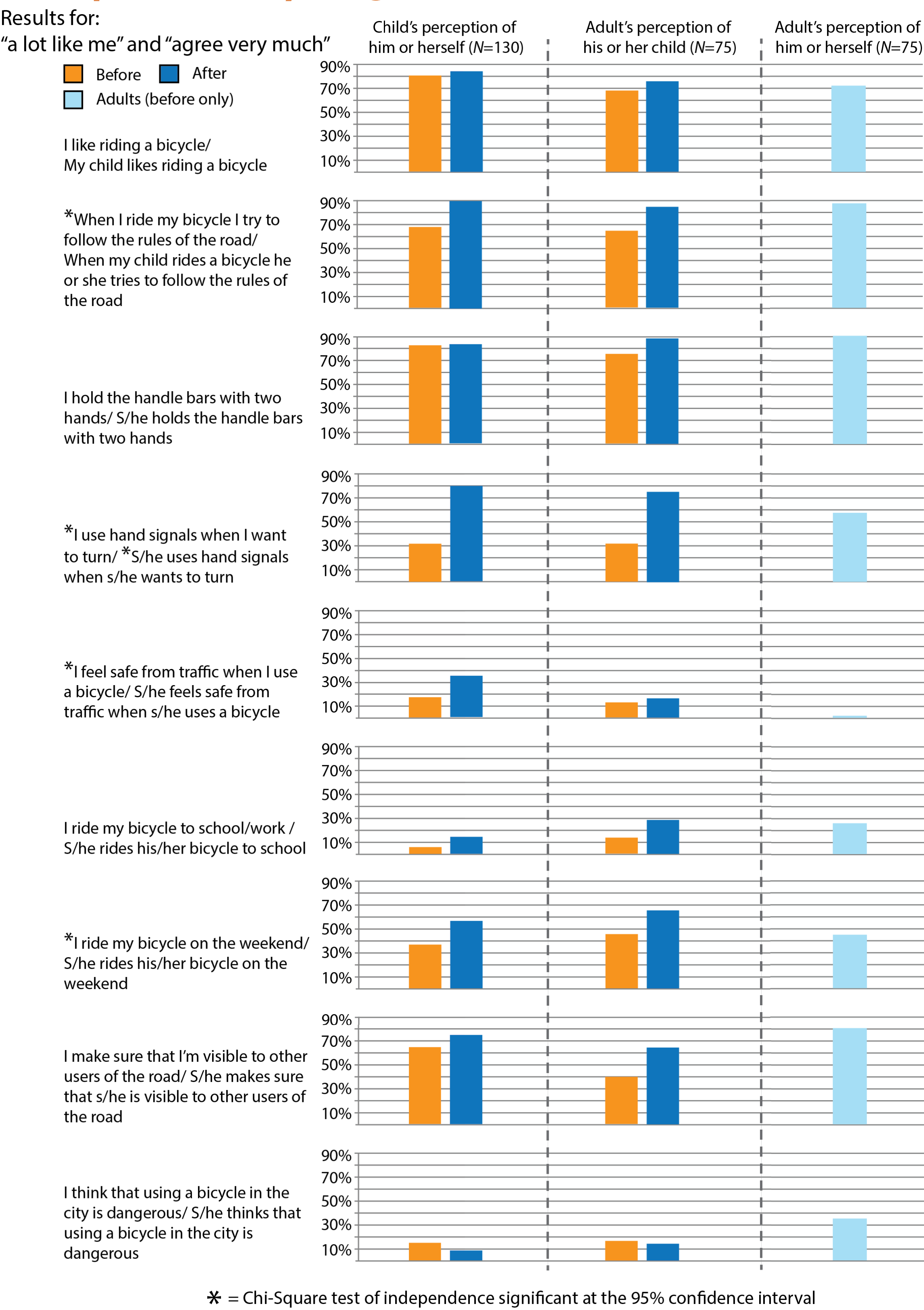
Before and after having been taught about bicycle safety:



SAMPLE QUESTIONS: BEHAVIOR

Children became more confident: before the program 75% of children stated that riding a bicycle was not difficult for them and after, this increased to 92%. Students' parents also reported improvements in their children's cycling abilities, and 55% stated that they would allow their children to participate in an organized "cycle-to-school" program.

Perceptions of cycling habits and skills:



ADULTS' BEHAVIORAL CHANGES

Half of the parents included in the post-program survey stated that their **behaviors** and/or **attitudes** towards cycling had **positively changed** as a result of their child's involvement in the bicycle education program.

"I pay more attention to the rules of the road: stops, signaling, who has priority, especially when I cycle with my child, to set a good example"

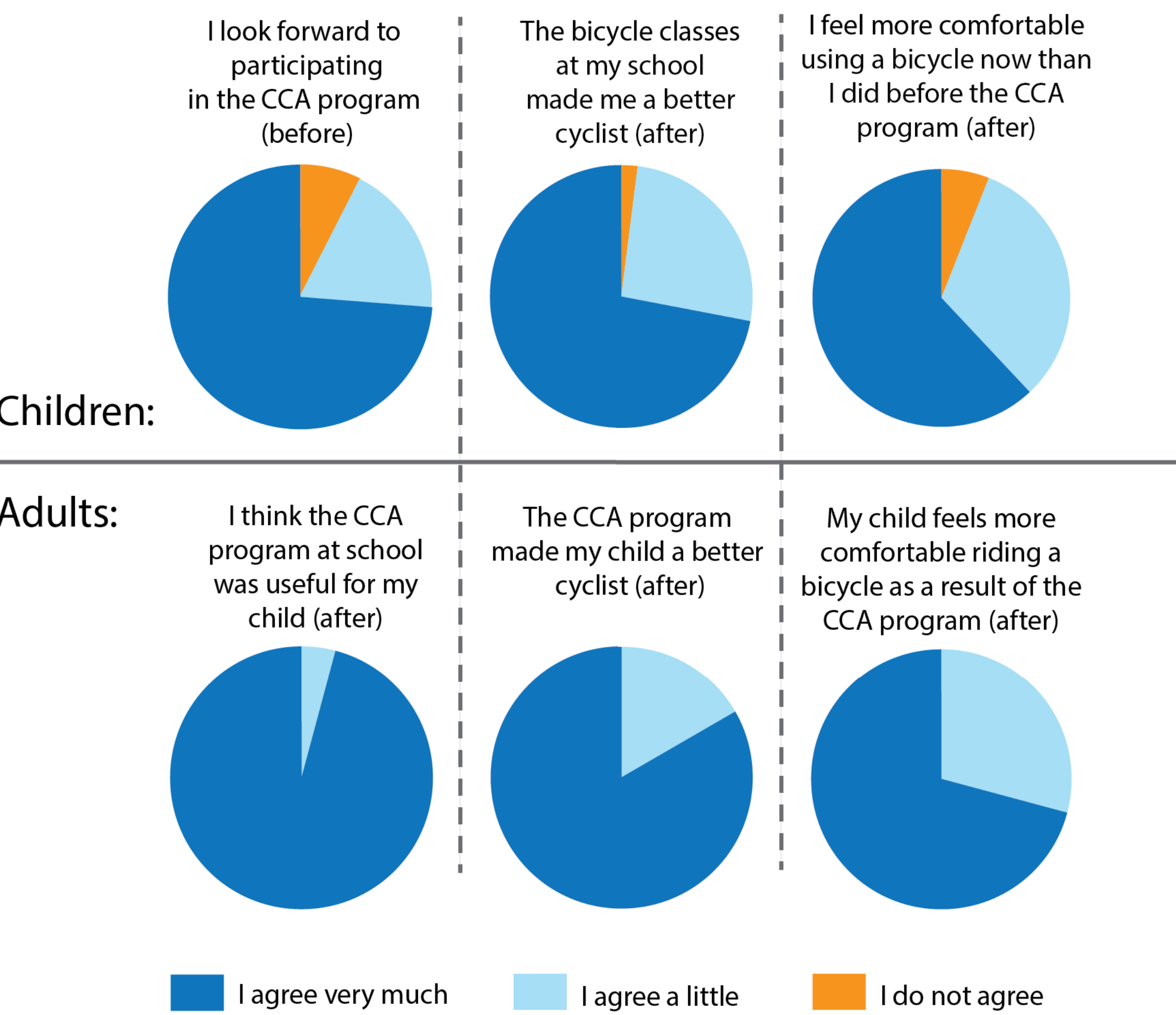
"Now I know that my child knows the right rules so I do not want to contaminate him with my bad habits"

"I'm more confident to let my daughter ride her bike alone. She knows the rules well, and has passed them on to us"

"I now wear a helmet for safety reasons"

PROGRAM ASSESSMENT

Children's and adults' assessment of the CCA program:

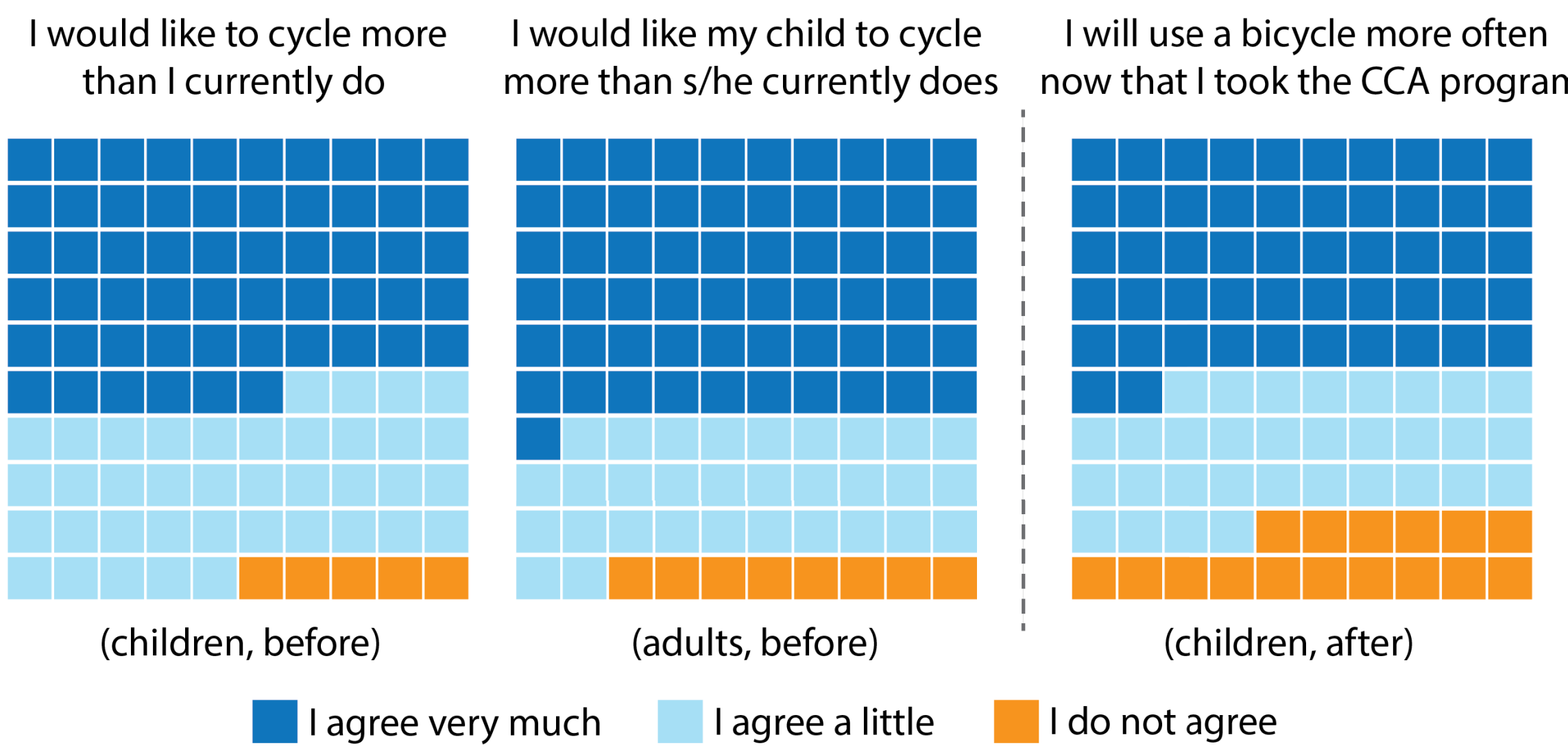


"This is an essential course that should be part of the elementary school curriculum"

- parent

WANTING TO CYCLE MORE

Desire to use a bicycle:



CONCLUSION

Major findings:

- CCA effectively taught children how to be **responsible**, **safe**, and **confident** cyclists
- Parents' **behaviors changed** as a by-product
- Mode share not likely to increase if **infrastructural changes** not implemented

In the future:

- Assess the **knowledge** and **behavior** of CCA graduates **12 months** later
- Make **assessment** surveys **mandatory**
- Implement **long-term** "cycle-to-school" **initiatives**
- City planners should consider implementing policies that encourage the development of **bicycle-infrastructure** and **traffic calming measures**, especially near schools in order to encourage parents to allow their children to bicycle to school.

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