

Preparing New Zealanders for transport cycling: a competency model

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Abstract

For many New Zealanders, learning to ride a bike is a life milestone; however, having the skills and desire to cycle for transport is limited to a small percentage of Kiwis. As part of a wider programme to make cycling a safer and more attractive transport mode, this research project re-examined the goals and effectiveness of cycle skills training. Through a literature review and qualitative methods a 'cycling competency model' was developed. This model and accompanying recommendations provide a systematic way to prepare New Zealanders to ride on the network, while maximising the impact on safety and cycling participation.

Background

New Zealand is currently implementing a multi-faceted programme to make cycling a safer and more attractive transport mode in order to increase the number of people travelling by bike. As well as investment in cycling infrastructure, this programme focuses on behaviour change approaches, such as cycle skills training. Quantifying the effect of cycle training is difficult and there is a lack of evidence linking cycle training with reduced injury risk (Richmond, Zang, Stover, Howard, MacArthur, 2014) and cycling participation (Goodman, van Sluijs, Ogilvie, 2015). The NZ Cycling Safety Panel also recognised the need to improve the consistency of and overall approach to cycle training in New Zealand (Cycling Safety Panel, 2014).

The objective was to examine the competencies cyclists need to ride on the network safely and identify the strategies that will enable the development of these competencies over the life course, whilst maximising safe road use and trips by bike.

Method

A literature review was undertaken covering: the skills, knowledge and attitudes children and adults need to ride on the road; the effect of cycle training on safety and cycling participation; and the current reach and approach to cycle training in New Zealand.

A qualitative research process involved semi-structured interviews with 15 stakeholders (cycle training providers, road safety professionals and school representatives), focus groups (3) with parents and students and an online survey for people who cycle or want to cycle (n = 262).

Qualitative data was coded and analysed for themes and integrated with learnings from the literature review to form the Cycling Competency Model (Figure 1).

Results

Cycling on the road network requires the application of motor skills, cognitive skills and perceptual skills in different environments (Ellis, 2014). These skills, combined with positive attitudes to safety, perceptions of the road as a shared space, and the valuing of cycling as a transport mode – represent a broader view of cycling competency. The Cycling Competency Model (Figure 1) describes how traditional training can be combined with other formal and informal approaches to facilitate the cumulative development of this cycling competency over time. The model demonstrates the importance of parents and peers in supporting others to cycle, facilitating practice and experience and reducing the sole reliance on external support. The model also presents how

cycling infrastructure, cycling promotion, spaces to ride and community perceptions of cycling can combine with training initiatives to maximise the impact on safe road use and cycling participation.

There are good examples of established cycle training programmes in NZ, as well as innovative approaches to skill development and cycling promotion; however, the need for consistent and coordinated approaches, the involvement of families and the opportunity to ride from a young age are examples of critical gaps.

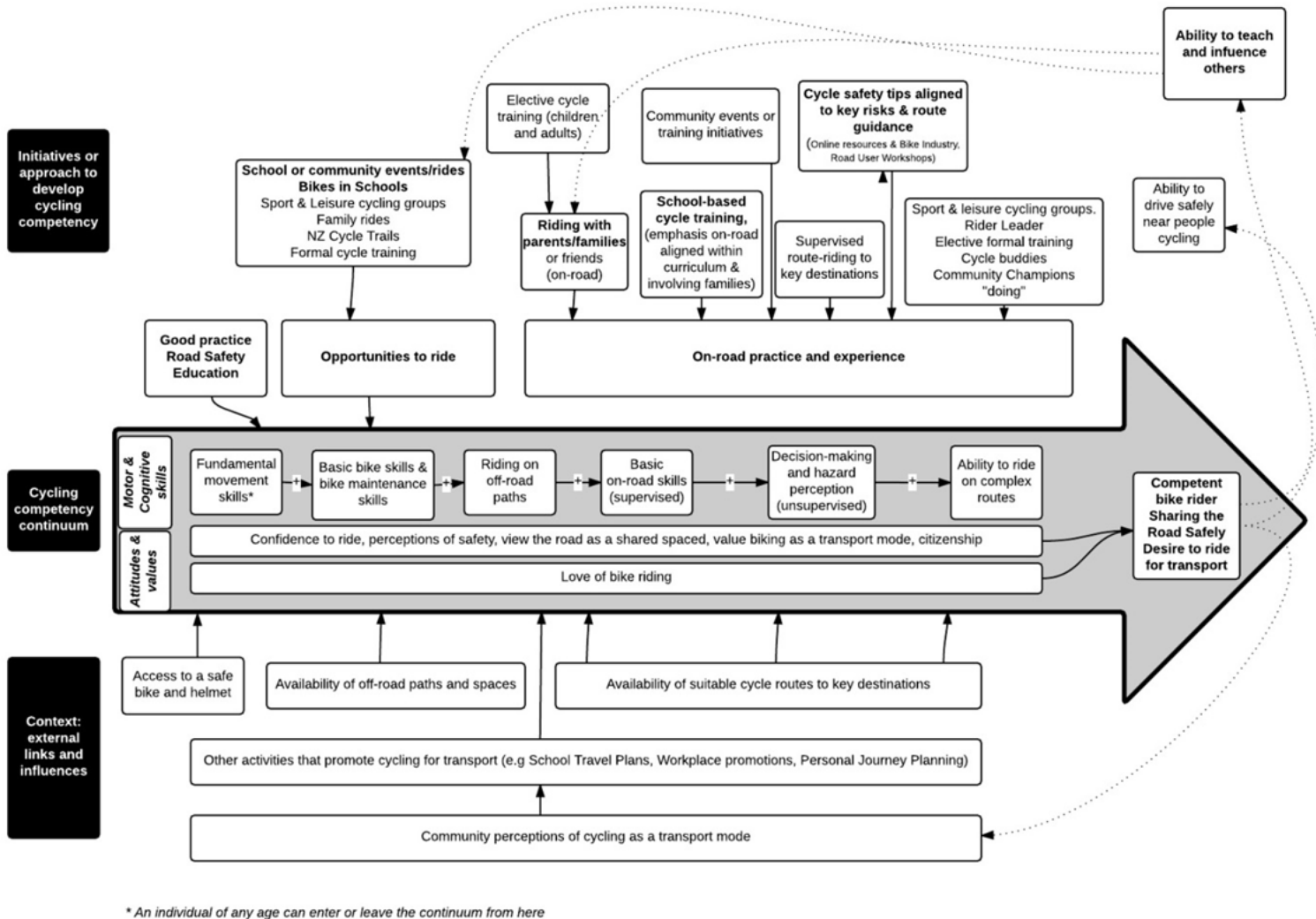


Figure 1. Cycling competency model for New Zealand

Conclusions

Developing the competencies required to ride for transport are cumulative, requiring practice and experience. In order to maximise outcomes of safe road use and cycling participation, multiple touch points of informal and formal training need to be facilitated over the life course. These initiatives also need to be coordinated with other activities that support cycling and with the environmental context of the individual.

References

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