Stepping Out with Citizen Kid workshop
August 14, 2013

CATCH/iMATCH – is there a link between independent mobility and active citizenship?

(photo credit: CATCH/iMATCH participants)

Dr. Carolyn Whitzman, Associate Professor; Andrea Cook, PhD candidate Faculty of Architecture, Building and Planning, University of Melbourne
Dr. Paul Tranter, Associate Professor in Geography, University of New South Wales/ Australian Defence Force Academy
Outline of Presentation
(photo: J. Perkovic)

• What is CATCH/iMATCH?
• What were the methods?
• Results
  – Differences in terms of IM/AT
  – Differences in terms of collages (loves, hates, perfect neighbourhood) and citizenship
• Next steps for the research
The CATCH/iMATCH project

• 2 Australian Research Council grants July 2010-December 2013
• CATCH (Children’s Active Travel, Connectedness and Health)- Children’s perspectives on local environmental likes and dislikes and how that influences their independent mobility, active travel, physical and mental wellbeing, and sense of community (Discovery Project)
• iMATCH (Independent mobility, active travel and children’s health) - effectiveness of policy interventions in increasing children’s independent mobility and active travel (Linkage Project, with partners Queensland Health, Queensland Transport, Moreland Council, Merri Community Health Services)
• Same research team
  – Carey Curtis (Curtin- Perth) and Matt Burke (Griffith – Brisbane), transport planners
  – Carolyn Whitzman (Melbourne), social planner
  – Paul Tranter (UNSW/ADFA – Canberra), social geographer
  – Mitch Duncan (Central Queensland – Rockhampton) and Christine Armit (Merri Community Health Service/ now working as a Research Fellow with us in Brisbane), public health
  – 5 PhD students
The Problem: AT (Melbourne)  
(Garrard, 2009)

- 1970, 55.3% 6-18 year olds walked to school, 14.3% took car;  
- 1994, **22.2% walked, 43.9% took car** (Harten and Olds 2004)

- 1994-1999: children aged 0-14 years made an average of 23.1 trips/week, **71% as car passenger, 22% as a pedestrian** (Garrard 2009)

### Table 1: Distance walked and cycled per child (10-14 years) per year (km)

<table>
<thead>
<tr>
<th>Country</th>
<th>Distance walked per child per year (km)</th>
<th>Distance cycled per child per year (km)</th>
<th>Proportion of total distance travelled using active modes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>123</td>
<td>n/a</td>
<td>0.8²</td>
</tr>
<tr>
<td>UK</td>
<td>396</td>
<td>79</td>
<td>6.8</td>
</tr>
<tr>
<td>NZ</td>
<td>n/a</td>
<td>232</td>
<td>n/a</td>
</tr>
<tr>
<td>Norway</td>
<td>550</td>
<td>370</td>
<td>9.7</td>
</tr>
<tr>
<td>Sweden</td>
<td>275</td>
<td>424</td>
<td>7.4</td>
</tr>
<tr>
<td>Germany</td>
<td>431</td>
<td>518</td>
<td>13.8</td>
</tr>
<tr>
<td>Switzerland</td>
<td>773</td>
<td>535</td>
<td>14.4</td>
</tr>
<tr>
<td>Netherlands</td>
<td>180</td>
<td>2200</td>
<td>33.5</td>
</tr>
<tr>
<td>Melbourne⁵</td>
<td>182</td>
<td>26</td>
<td>4.6</td>
</tr>
</tbody>
</table>

(Note: There is no current Australian national data available on children’s walking and cycling trip distances.)
The Problem: IM

- 1969: 87% of US primary school children (6-12) living within 1 mile of school walked or cycled to school on their own; 2005: only 13.5% (Martin and Carlson 2005)
- 1971: 80% of 7-8 year old UK students went to school on their own; 1990: only 9% (Hillman et al 1990)
- While 80% of German 10 year olds were allowed to travel to places other than school in 1990, only 38% of 10 year olds in the UK, and 34% of 10 year olds in Sydney, were allowed the same freedom (Hillman et al 1990; Tranter 1993)
- 38% of participants in Victoria agreed there is a high risk a child will be ‘abducted by a stranger’ if they move to and from places without adult supervision; 63% of participants agreed parents should not let primary school age children move to and from places without adult supervision (Zubrick et al 2010)
• Child overweight and obesity: 25% of Australian kids now, 5% in 1960 (Australian Society for Study of Obesity 2004)
• Social and mental development of children, anxiety and depression, readiness to learn, environmental knowledge, development of spatial, motor and analytic skills, number of local friends and acquaintances (Tranter and Pawson 2001, Prezza et al 2005, Malone 2007)
• 2/3 of pedestrian accidents in Victoria involving children occurred in relation to cars doing school drop off and pick up (Morris et al 2001)
• Driving children to school, recreation, friends, etc. a significant source of traffic congestion eg., ‘the school drive’ accounts for 17% of traffic 8.30-9 a.m. in Melbourne (DOI 2005); airborne pollutants are higher around some schools than in the surrounding neighbourhoods (Kingham and Ussher 2007); in car pollution worse than outside cars (International Centre for Technology Assessment in Tranter 2004)
Research Questions

- CATCH:
  - How do children travel in their neighbourhoods?
  - Where do they travel?
  - How does this travel differ by type of community (i.e., inner suburb, middle/outer suburb, regional town)?
  - Are there significant health benefits from this travel (physical activity)?
  - Are there significant health benefits from this travel (social connectedness)?
  - How do children and parents perceive the reasons for, and benefits of, children’s IM and AT?
  - What are the social environment influences on children’s IM and AT?
  - What are the built environment influences on children’s IM and AT?
CATCH/iMATCH Methods

• 7 public school-based sites spread out across 3 states:
  – 2 inner city (Melbourne and Perth)
  – 2 middle suburbs (Melbourne and Brisbane)
  – 2 outer suburb/master planned communities (both in Brisbane)
  – 1 regional town (Rockhampton)
  – Lowest and highest quintile SEIFA excluded

• 3 intervention sites with ATS program, 4 control sites

• Between 32-140 children in grades 4-7 (senior primary) and their parents in each site

• Methods: ‘week with camera’, child and parent surveys, travel diary, GPS, heart monitor

• Data collection complete, analysis this year
‘Week with a Camera’/Photo collage

• “The idea is to get an idea of how children see their neighbourhood... Think of places around your neighbourhood that you either REALLY LOVE or REALLY HATE... but it would help us a lot if you could take some photos of the following:
  – a photo on your way to school:
  – a photo on your way home from school
  – a photo of a place you go in your neighbourhood, outside of school
  – a photo of something you like to do or a place you like to go without adults (or would like to, if you were allowed)”

• 197 children created 3 collages: things I LOVE and HATE about neighbourhood and a PERFECT neighbourhood to explore
IM/AT– journey to school (child survey) – varies considerably by site

<table>
<thead>
<tr>
<th>Mode of Transport</th>
<th>all</th>
<th>Melbourne inner</th>
<th>Melbourne middle</th>
<th>Perth Inner</th>
<th>Brisbane middle</th>
<th>Brisbane outer</th>
<th>Rocky</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk - IM</td>
<td>25</td>
<td>20</td>
<td>28</td>
<td>26</td>
<td>40</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Bike or PT-IM</td>
<td>7</td>
<td>23</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Walk, bike or PT – with parent</td>
<td>9</td>
<td>23</td>
<td>23</td>
<td>10</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Driven</td>
<td>55</td>
<td>27</td>
<td>30</td>
<td>59</td>
<td>55</td>
<td>67</td>
<td>65</td>
</tr>
</tbody>
</table>
Playing Outdoors in neighbourhood Varies by Site (child survey)

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Melbourne inner</th>
<th>Melbourne middle</th>
<th>Perth inner</th>
<th>Brisbane middle</th>
<th>Brisbane outer</th>
<th>Rocky</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play outdoors 5+ times/week</td>
<td>33</td>
<td>13</td>
<td>34</td>
<td>31</td>
<td>15</td>
<td>38</td>
<td>41</td>
</tr>
<tr>
<td>Play 3-4 days</td>
<td>30</td>
<td>40</td>
<td>23</td>
<td>27</td>
<td>30</td>
<td>34</td>
<td>30</td>
</tr>
<tr>
<td>Play 1-2 days</td>
<td>29</td>
<td>43</td>
<td>27</td>
<td>37</td>
<td>55</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>Never</td>
<td>6</td>
<td>3</td>
<td>16</td>
<td>4</td>
<td>0</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Usually Play alone</td>
<td>19</td>
<td>30</td>
<td>20</td>
<td>22</td>
<td>20</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Play with children</td>
<td>64</td>
<td>47</td>
<td>59</td>
<td>65</td>
<td>59</td>
<td>70</td>
<td>65</td>
</tr>
<tr>
<td>Play with adults</td>
<td>14</td>
<td>23</td>
<td>18</td>
<td>12</td>
<td>18</td>
<td>10</td>
<td>14</td>
</tr>
</tbody>
</table>
Travel/ Leisure IM/AT

- Children in the 2 inner suburbs – more AT (than Australian or Melbourne average)
- Children in the 2 middle suburbs – more likely to walk to school (but 23% of the inner Melbourne group cycle by themselves or with other children)
- Children in the outer suburban and regional sites most likely to be driven to school
- BUT: children in the outer suburban and regional sites most likely to play outdoors a lot
- Children in the inner Melbourne suburb most likely to play outdoors alone or with adults outdoors (low child density?)
- Children in the middle Melbourne suburb most likely to never play outdoors (fear of crime?)
‘Love’ collages and the ‘spatial’ city

• The ‘spatial’ city: 291 references to parks, playgrounds, sporting fields, children’s own street (+36 references to specific places eg., velodrome, CERES) – most apparent in the inner suburbs (which also referenced shopping the most)

• The Rockhampton and inner city Perth sites had most references to back yards
‘Love’ collages– the ‘social’ city

- 2/3 of the children in the Melbourne middle suburb had no photographs of the public realm – all about friends and family, home and school (the social dimension)
- The Brisbane outer suburbs had lots of references to friendliness of neighbours and also to the school as a vital play space
‘Hate’ collages – spatial and social city

- Lots of maintenance/aesthetic issues – graffiti, rubbish and littering, smell, noise
- ‘boring spaces’ – “not much for my age group”
- Transport and getting around: particularly traffic in inner city sites
- Middle Melbourne site most concerns about ‘bad’ neighbours/ violence
‘Perfect’ collages

- Children in the two inner city sites and Rockhampton tended to focus on spatial, public realm eg., “A new and better playground with swings, slide, flying fox, monkey bars, cubby house and loads of room to play and run around”

- Lots of detail from these groups!

- In contrast, Melbourne middle suburb and outer suburbs were either tentative or very fanciful in their ideas
The ‘civic’ child

• “I like my neighbourhood because there is a park next to my house and I am allowed to go there by myself (9 year old, middle Melbourne suburb)

• Some criticisms of both intensification and of empty lots – can engage in planning discourses!
Differences between sites

• Very detailed likes and dislikes correlated with children with high IM, especially in inner suburbs

• In contrast, some of the middle suburban and regional children did not know much about their neighbourhood, even if they played ‘outdoors’ – “There aren’t any playgrounds or shops – I have no friends in the neighbourhood.” – Rockhampton

• This appears to feed into fears in the middle Melbourne suburb
Spaces for kids

Unsurprisingly, lots of concerns about traffic safety and lots of photos of back seats of cars

“There is only a road to play on” – Rockhampton

“I rode my scooter at the shopping centre, which was great because it was so smooth. But then I got caught by security guards” – Melbourne middle suburb, no images of public space in collages
Next Steps

• Design of schools, immediate vicinity of schools and neighbourhood gathering spaces to include kids in planning and use of public space

• Final report due end of year – with links to children’s walkability maps, health outcomes, impact of ATS programs etc.