Involving Youth in Community and Transportation Planning Through Participatory Research

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I Introduction

Since the development of *Plan It Calgary* in 2007, the City of Calgary has focused on developing complete streets that incorporate multiple modes of transportation and increase accessibility, convenience and safety for all street users. Because of the rapid growth of the city as well as the city's current emphasis on creating more complete communities that hold a stronger sense of place, it is a critical time to involve youth in the decision making processes surrounding the mapping, and design of communities in which they live.

This proposal presents five methods for involving youth in mapping, data collection and design processes having to do with the use of public space and street design. In order to provide a variety of methods that can be used by community groups, school groups not-for-profit organizations, and municipalities, each method is described in terms of resources and time needed to complete the activity, as well as key objectives and feasibility.

I.I The Importance of Involving Youth*

Youth can provide unique and diverse perspectives on the current forms of the built environment and future plans for the development of streets, public spaces and communities.

- Children and youth provide different perspectives on accessibility and risks of the built environment and provide unique opinions on the appeal of streets, green spaces and community spaces.

- By gathering data on ways in which youth travel, participate in recreational activities or use public spaces, researchers and service providers are able to gain insight into the activities of the youths themselves and their entire families.

- Youth can provide unique solutions to challenges in their communities. When Portland's City Repair group asked local students to come up with solutions to calm traffic in an intersection, one student recommended holding pony rides in the intersection for one day to slow traffic. Although many ideas youth recommend may sound "too outside the box", unconventional methods of street and community design are critical to meeting the goals embodied in the philosphy of complete streets: creating safer and distinctive streets and neighbourhoods.

- Most importantly, it is crucial to involve youth in decision-making processes for the streets and neighbourhoods that are theirs to live in, grow up in, and care for themselves. Because city development has long term implications for current and future residents, it is necessary that children have a say in the development of their communities and are able to take ownership of their streets and public spaces.

*In this report we define youth as people between the ages of 7-21.

1.2 Alignment of this Report with the City of Calgary Transportation Plan (CTP), Complete Streets document, and Calgary Municipal Development Plan (MDP)

The recommendations presented in this proposal fit with the *Plan It Calgary* transportation, *Complete Street* and *Municipal Development* goals. They are as follows:

1. We recommend that youth be involved in the data collection and mapping processes in order to develop a broader understanding of safety and accessibility issues for all transportation system users. This fits within the City of Calgary's second and third transportation goals, "promote public safety and health for all transportation system users" and "provide mobility and universal access for all".

2. We recommend that youth be involved in design processes in order to create complete streets and more distinctive communities with stronger senses of place. This objective fits within the city's Complete Streets Guide and the CTP's Long Range Urban Sustainability Plan for Calgary.

3. We recommend that youths' opinions be incorporated into decision-making processes in order to diversify the stakeholder groups involved in planning. Doing this will also develop concepts of ownership and stewardship in younger generations. Calgary's CTP emphasizes the use of public and community collaborative processes in planning new transportation infrastructure, however there is no mention of involving portions of the population who are not traditionally involved in decision-making processes, like children. As mentioned in the CTP, "decisions made today about where and what to build will affect Calgarians for 100 years or more", therefore it is prudent that younger generations are involved in making these changes.

The remainder of this report outlines several methods which can de adopted to achieve greater participation by children and youth in transportation and community planning decisions.

Method 1: Microscale Audit of Pedestrian Streetscapes (MAPS) with Youth

Objectives

- Develop children and youth's understanding of streetscapes and complete street concepts.
- Teach children and youth basic data collection methods.
- Gather data on children and youth's perceptions on safety and accessibility.
- Allow children and youth to develop solutions to safety and accessibility issues in their own neighbourhoods.

Method:

Step 1. Project representatives present a brief lesson on streetscapes and complete streets to students in the classroom. This may include ideas for creating streets made for everyone (drivers, pedestrians, cyclists, people in wheelchairs or with walkers, people with strollers, adults, seniors and children). Review the importance of bus stops, seating, walkable sidewalks, adequate lighting, crosswalks, appeal of the street, bike lanes, bike racks, adequate space for pedestrians, space for cars and designated areas for parking.

Step 2. Representatives then explain the audit process to students and explain the students' roles as community researchers.

Step 3. Representatives either go out into the community with small groups of students to complete an audit or an audit is assigned as a homework assignment and students are asked to complete it on their own time with the help of parents.

Step 4. Students map out the information they collected from the audit on to individual maps, or create a larger map as a class.

Step 5. Project representatives use the audit scoring system to determine which areas of the neighbourhood are most/least conducive to active, safe transportation.

Step 6. Representatives initiate a brainstorming activity with students to develop solutions to safety and accessibility issues mapped.

Time Frame

Step 1: Brief lesson on streetscapes and complete streets	-1-2 hours creating lesson plan -30 minutes lesson length
Step 2: Explain Audit/Student Roles	-1 hour preparation -15 minutes explanation to group
Step 3: Complete Audit	-1 hour walking tour -30 minute completing audit form
Step 4. Create Map	-30-45 minutes
Step 5. Score Audit	-2-6 hrs depending on the size of the group
Step 6. Develop Solutions	30-45 min

Tool: Microscale Audit of Pedestrian Streetscapes (MAPS) by Dr. Larry Frank, University of British Columbia's Health & Community Design Lab

Feasibility

- Best done in a classroom setting or with an organized group of children (ex. girl guides or scouts).

Precedent

"Contribution of Streetscape Audit to Explanation of Physical Activity in four Age Groups based on Microscale Audit of Pedestrian Streetscapes." *Kelli L. Cain, et al.*

The MAPS audit in this case was completed with 4 different age groups in 4 American Cities. The study found that destinations and non-residential land use were related to increased walking/biking for all age groups, streetscape characteristics were related to walking/biking for all age groups, and aesthetics and social characteristics were unrelated to walking/biking across all age groups. *photo: MAPS Mini Version, Training Guide & Picture Manuel, Geramia, Cain*

MAPS Audit Exerpt

4. Are there any benches or places to sit (excluding bus stop benches)?

☐ Yes (1)
☐ No (0)

Tables or benches outside of restaurants/cafés (see picture) do not count as a places to sit. These must be public seating areas.

5. Are street lights installed?

☐ None (0)
☐ Some (1)
☐ Ample (2)

None

Some *(e.g., overhead street lights on utility poles with wide spacing)*

Ample *(e.g., regularly spaced pedestrian lamp posts)*

Method 2: Participatory Photo Mapping with Youth

Objectives

- Create a comprehensive neighbourhood map with photographs, qualitative data, and quantitative data that focuses on the lived experience of community health and space.
- Provide decision makers with visual images of the lived experiences of youth with respect to their health and and use of space in the built environment.
- Allow children and youth to recognize opportunities and barriers in the built and social environment.
- Teach youth data collection, mapping skills.

Method

Step 1. Provide students with digital cameras or other picture-taking devices and a GPS device (phones, tablets, etc). Ask students to take photos of their neighbourhood, focusing on recreational areas, routinely used areas, community gathering locations, shops and businesses, and streetscapes. Ask participants to record the GIS coordinates of the location of the photographs and provide a brief explanation about why they chose to take the photo. Allow students to complete this activity over seven days.

Step 2. Hold group semi-structured interviews with students to discuss the photos.

Step 3. Hold community sessions with the photos being the object of open dialogue (project each image on to a screen or hand out copies to small groups of people). Record the themes discussed around particular images.

Step 4. Geocode photos and qualitative data (from discussions with students and with community groups) onto a neighbourhood map that includes demographic and spatial information (population, household and crime statistics, etc).

Time Frame

Step 1. Students Explain and Complete Activity	-1 hour explanation -7 days completion
Step 2. Conduct Group Interviews with Students	-2-3 hours (15-20 minutes each) (depending on size of group)
Step 3. Community Sessions	-1-2 hours preparation -2-10 hours (depending on the number of sessions held)
Step 4. Create Comprehensive Map	-10-20 hours

Feasibility

- Can be completed with a school group, organized youth group or with a random sample of youth from the community.
- Due to the degree of responsibility and longer time frame of completing this activity, this method would work best with youth rather than children.
- This activity requires the most time and resources but has very comprehensive outcomes.

Precedent

"Participatory Photo Mapping (PPM): Exploring an integrated method for health and place research with young people" *Samuel F. Dennis Jr., Suzanne Gaulocher, Richard M. Carpiano, David Brown*

This method was used to map out public health concerns in the built and social environment with youth in a low income neighbourhood in Wisconsin. The method allowed researchers and service providers to gain a better understanding of health and nutrition for youth living in the nieghbourhood, as well as youth's use of public spaces in the community. The data gathered created a comprehensive foundation for the development of crime prevention and safety programs in the neighbourhood. *photo: S.F. Dennis Jr. et al. / Health & Place 15 (2009)*

Method 3: Photo Voice with Youth

*This method is very similar to Participatory Photo Mapping (PPM), however it requires fewer resources and less time.

Objectives

- Enable groups who are traditionally not included in decision-making processes to record and reflect on their experiences and their communities' conditions, both positive and negative.
- Provide decision makers with images of children and youth's lived experiences of health and space in the built environment.

Method:

Step 1. Project representatives briefly explain goals of the project and topics they require the group of children/youth to take photographs of. These topics may include, risks the participant encounters while travelling to school or home, barriers to active transportation, opportunities allowing for more active transportation, the use of public space in their community, recreational activities, etc.

Step 2. Youth are given a camera (or asked to use their own photo-taking devices) and asked to take photos for a given amount of time (this may be a few days or up to a month).

Step 3. Youth's photographs are developed and project representatives hold semi-structured group interviews with students to gain qualitative data on transportation barriers and opportunities in the given community.

Step 4: Data analysis.

Time Frame

Step 1. Briefly Explain Activity to Participant Group	-30-45 minutes
Step 2. Compete Activity with Youth	-1 day -1 month
Step 3. Conduct Semi-Structured Group Interviews	-2-3 hours (15-20 minutes each) (depending on size of group)
Step 4. Data Analysis	-5-8 hours

Feasibility

- This activity can be done with a wide range of age groups.
- This method can be completed with a school group, organized youth group or with a random sample of youth from the community.
- Participants are likely to collect more comprehensive data if the time frame for photographing is longer. If this period is longer than a week it may be necessary to hold ongoing sessions with participants in order to keep the group focused on objectives.
- The duration of the activity may depend on the age of youth participants.

Precedent

"How community environments shapes physical activity: Perceptions revealed through the PhotoVoice method" *Ana Paula Belon, Laura M. Nieuwendyk, Helen Vallianatos, Candace I.J. Nykiforuk*

Project implemented in four communities in Northern Alberta. Participants were asked to take photographs of the community's environment (physical, socio-cultural, economic or political) then were interviewed about the photos they took. Qualitative data and photographs were categorized into opportunities and barriers for physical activity in regards to physical, socio-cultural, economic and political environments.

Method 4: Risk Mapping with Youth

Objectives

- Enable youth to identify positive and negative aspects of their local communities.
- Enable youth to identify areas of their community they would like to change and develop ideas around how to implement these changes.
- Support youth-led action planning.

Method

Step 1. Project representatives present a brief lesson on streetscapes, transportation and common transportation risks with the group of children/youth. The depth of this discussion will depend on the age of participants.

Step 2. Divide participants into small groups (3-4 participants) and provide each group with a large piece of paper, pens pencils and markers. Ask the groups to collectively build a map of their community highlighting:

-important places in the community
-places the participants like or feel safe in
-dangerous areas in their community they would like change.

Step 3. Hold discussions with each small group about the areas they have identified on the map.

Step 4. Facilitate a group discussion after the groups have completed their maps. Discuss the potential actions that can be taken to improve community and address the risks identified.

Step 5. Groups return to their maps and draw possible solutions to risks and dangerous areas identified.

Step 6. Collect data from maps and discussions.

Time Frame

Step 1: Brief Lesson	-1-2 hours preparation-20-30 minutes
Step 2: Primary Mapping Exercise	-30 minutes
Step 3: Conduct Discussions with Small groups	-20-30 minutes, (5 minutes each) (depends on the size of participant group)
Step 4: Develop Solutions	-15-20 minutes
Step 5: Secondary Mapping Exercise	-15-20 minutes
Step 6: Collect and Analyze Data	-4-5 hours

Feasibility

- This method can be done with all age groups, and is the best method to use with younger children.
- This type of project is the simplest method described in this proposal, using the fewest resources and the least time.
- This method may pair well with the Intersection Design method described below.

Precedent

"Participatory Mapping of Safety and security concerns of School Children" *M.K. McCall*

Children were first asked to draw individual pictures of their experiences on the route to/ from school showing dangers and problem points in their daily routes. Children were then asked to make individual sketch maps of their routes to and from school (including timelines and danger points). Sketch maps were then transferred to an aerial map and using geo-referencing. Outputs were summarized and made available to city municipality, local NGOS, road safety campaigns, and urban research data bases.

Method 5: Intersection Design with Youth

Objectives

- Support youth-led action planning.
- Engage youth in developing unique solutions to transportation barriers and limitations.
- Foster youth ownership of community public spaces.

Method

Step 1. Project representatives present a brief lesson on complete streets, transportation risks and community action to the group of youth. This may include ideas on creating streets made for all users (drivers, pedestrians, cyclists, people in wheelchairs or with walkers, people with strollers, adults, seniors and children), and ideas on reducing key risks that are present on community streets.

Step 2. Divide the participant group into smaller groups of 3-4 youth. Facilitate discussions with these small groups about what the youth love about the community they live in, what they dislike about the community, and what they would change.

Step 3: Provide each group with a cardboard model of a 4-way intersection, pencils, markers, scissors, coloured paper, small rocks and any other craft items that can be used to build onto these intersections. Engage groups in creating structures and building onto the intersections.

Step 4: Facilitate a group discussion where each group presents their intersection and explains how their design will reduce previously mentioned risks.

Step 5: Record and categorize solutions developed by participants, specifically looking for common themes that can be integrated into current transportation plans or community projects.

Time Frame

Step 1: Brief Lesson and Explanation	20-30 minutes
Step 2: Conduct Small Group Discussions	15 minutes
Step 3: Intersection Design	1 hr (depending on age and interest levels of the participants)
Step 4: Conduct Group Discussion and Presentations	30 minutes

Feasibility

- This project can be done with a wide range of age groups.
- This method primarily develops solutions to transportation risks, and therefore can be paired with any of the previous methods of identifying risks.
- This method is relatively simple to complete. It requires few resources and little time.

Precedent

Creative Community Building in the Public Right of Way: City Repair's Placemaking Guidebook, Mark Lakeman

City Repair completed this project with community groups and some groups of children/ youth in Portland, Oregon. Solutions were developed into community place-making plans and implemented in neighbourhoods through community action processes.

Use of Proposal and Contact Information

We hope this document will be utilized by a variety of youth-centered organizations and businesses, including schools, youth groups and after school programs, as well as municipality and community-led transportation system projects. Questions or comments regarding this proposal are welcomed. They should de addressed to Kate Beck at the address below. To share your experiences and/or your data with us – particularly if you are working in an Active Neighbourhoods community – please contact Celia Lee at the address below. We would love to hear from you!

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