Why infrastructure education?

Infrastructure and engineering upgrades can increase safety for pedestrians and bicyclists, yet education is often needed to ensure all road users know how to interact with the new facilities and devices. Treatments such as Pedestrian Hybrid Beacons, pedestrian scramble signals, shared lane markings, and bicycle signal heads can be confusing even for experienced road users. This info brief contains an overview of current trends and common pitfalls associated with educational resources for pedestrian and bicycle infrastructure. Additional evaluation is also needed.

What are popular practices?

Educating the public about new infrastructure usually occurs at two levels: 1) A general campaign about walking and biking that may entail a ‘how-to’ guide and an overview of health benefits, and/or 2) targeted outreach about installation of a new facility or device at a specific location. On-site signage, press releases, social media posts, brochures, and public service announcement videos are the most common types of education materials.

Many communities conduct general educational outreach through Safe Routes to School trainings, free learn-to-ride classes, and bicycle friendly driver’s education classes that address road safety basics and can be platforms to explain new infrastructure. Some communities collaborate with state departments of transportation to update driver’s education manuals and driver’s license tests to reflect new engineering treatments.

Comprehensive Outreach

Cambridge, MA conducts education through public meetings, information sessions, and social media. Recently, every residence in the city received a copy of the Getting Around Cambridge magazine, which explains local pedestrian, bicycle, and transit amenities.

One innovative education strategy gaining traction is tactical urbanism. Tactical urbanism and pop-up projects involve temporary installation of engineering treatments. This allows communities to “test out” treatments and educate the public. These demonstration projects often include community engagement and can garner significant media attention.

Combining Events

In conjunction with Safe Routes to School Day, officials in Wauwatosa, WI held a ceremony for a new rectangular rapid flashing beacon. The event drew students and parents and included a walking school bus.

Testing Out Treatments

Denver, CO used tactical urbanism to test out Bike Share during the 2008 Democratic National Convention. Many of the partnerships developed during the trial proved vital to creation of Denver B-Cycle.
Where might issues arise?

It is important to make sure messaging and graphics are accurate and easy to understand. Common pitfalls include:

**Late or no notice:** Publicizing engineering treatments early and often is best to avoid confusion.

**Lack of on-site instruction:** Signage on-site should be apparent and explicit. Ideally the design does require additional instruction.

**Announcements with no educational component:** Make sure to include or link to educational material. Even reminding the public about crossing laws when installing a standard crosswalk is helpful.

**Technical terminology:** Remember your audience is not a group of engineers. Mentioning a treatment by its technical name is fine, but make sure to explain its purpose and use with common language.

**Generic messaging:** Over-simplified messaging may lack guidance on the specific way road users should use and respond to engineering treatments.

**Conflicting messages/images:** It is not uncommon for videos to have images that conflict with narration. Make sure all graphics match with their message. Make sure messaging for the same types of treatments are consistent, and make sure messaging for different types of treatments highlight differences or similarities.

**Over-relying on websites:** Take your message directly to your audience. Posting information on an agency or organization website is not sufficient. Use a multi-faceted marketing approach to meet people where they are.

**Isolated efforts:** An isolated announcement or brochure is not likely to be effective. Education and outreach should involve unified messaging and collaborations across organizations. **Vision Zero** campaigns are a great umbrella for uniting engineering, education, and enforcement efforts and public engagement.

**English-only messages:** Make sure educational materials and programs are context-sensitive based on the composition of your community.

**Figure 1:**

*On-site instructions for bike box in Boston*

**Source:** NACTO

**Speaking the Language**

Pedestrian safety outreach in Miami, FL often involves training programs and educational materials in English, Spanish, and Haitian Creole. Messages are delivered via the city and many non-profit agencies that work closely with particular resident groups.

**Which methods are effective?**

Unfortunately, there are few studies on the effectiveness of infrastructure education campaigns and materials. Some communities assess the effectiveness of education and outreach using focus groups or in terms of the number of program participants, print materials distributed, social media shares and likes, or news coverage. While anecdotally useful, this information provides little indication that education campaigns result in proper use of engineering treatments. Further research is needed to understand the types of materials and programs that not only reach the public, but also influence positive behavior change.