

signed as a randomized controlled trial, explores the impact of a temporary outdoor STEM classroom intervention on learning and teaching activities in a selected preschool classrooms.

Children in selected preschool classrooms were randomly assigned into a *control* group and an *experimental* group. The *experimental* group participated in an outdoor classroom sessions. Children in the temporary outdoor classroom participated in a set of STEM learning activities conducted by one classroom teacher and one trained researcher. The *control* group remained in their regular classroom but take part in the same STEM activities. All STEM activities were carefully chosen undergoing an expert review and discussion with teachers. Data regarding STEM learning and teaching outcomes were measured by direct child observation (active participation in STEM and curiosity about STEM) and teacher interview. Data comparison between groups (experimental and control) and within group (treatment) revealed important findings regarding the effects of outdoor classroom intervention on STEM teaching and learning.

## Socially Open Urban Landscapes

Track: Shifting Values

Domain Methods: Health and Active Living, Environmental Justice

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Socially Open Urban Landscapes (SOUL) is an exciting new approach to understanding the relationship between urban design and public life in cities through play. Play is a fundamental human trait that crosses gender, age, racial, ethnic, and cultural lines; and, represents a critical point of departure for creating cities that support heterogeneous social interactions. Access to streets, parks, plazas, and open space is an important part of maintaining a healthy lifestyle in cities. Participation in public places is key to developing competencies as citizens and sustainable development of cities. By focusing on adolescents' right to the

city, I have identified barriers (social, political, and physical) that limit their access to places to achieve healthy, positive outcomes. Unfortunately, failing to support youth needs contributes to a burgeoning public health concern with a range of minor health and wellbeing problems that originate in youth and result in a whole host of problems magnified in adulthood. This sets up adolescents with persistent problems across the lifetime. Urban designers improve existing conditions—social, natural, and physical—to create places that encourage access and positive participation in public space. Through SOUL, I will show how big data from Social media, like Instagram, YouTube, and Twitter, Opens access to new evidence of the Urban play of adolescents across multiple Landscapes. The presentation will identify how several different types of public locations in multiple cities already serve to support play behaviors for adolescents. The presentation will introduce participants to: daily environmental justice issues facing adolescents in cities; examples of their type of play from social media; advantages of urban design strategies that supports their play for sustaining healthy, urban environments; and, the challenges of incorporating play due to policy, zoning, and design constraints.

## Performance Landscapes for Active Youth

Track: Shifting Methods

Domain Methods: Research Methods, Big Data

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As a counter-point to the need for researchers using “big data” to engage in complex statistical analyses, here I suggest that big data also opens the door to rich, qualitative analysis. Access to hundreds of hours of video uploaded every minute from 75 countries and 61 languages provides an unprecedented opportunity to delve deeper into how designed environments are interpreted