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Presentation Title: The first behavior-based energy and water efficiency project at a public school in Uzbekistan: the start of the Green Schools Program

Abstract: With funding from the UN Development Programs (Uzbekistan Office) and with strategic support from the Ministry of Public Education of Uzbekistan, we launched a behavior-based energy efficiency project in two public K-12 schools in Tashkent. As community centers and socially significant institutions, schools are uniquely positioned to disseminate knowledge, awareness, and promote positive behaviors regarding energy conservation to students. Indirectly, behavioral interventions conducted in schools also allow reaching the communities beyond school children and expand our outreach to the parents and teachers. We collected the data (N = 182 students) in a field experiment, wherein one school served as the experimental group, and the other school was used as the control condition. The experimental induction involved a behavioral activity conducted in the classroom as part of regularly scheduled physics classes. The activity involved a verbal introduction of the core concepts of energy and water efficiency, along with recycling by the physics teachers and project's principal investigator. Students were also provided with a simple brochure to take home. After the presentation, all students had an opportunity to use and obtain measurements from three different tools typically used by energy engineers during energy audits. In the project, the qualitative and quantitative data from students and adults (parents and teachers) were obtained. We measured participants' attitudes and beliefs about energy conservation along with their perceptions of barriers to conservation and energy efficiency. Our initial results indicate that the majority of students identified human-related factors as barriers to a better environment. Participants in the experimental group were also more likely to identify the specific behaviors promoting energy conservation relative to the control conditions, which points to the effectiveness of educational programs like these. These and other results are discussed, along with their implications, limitations, and future research directions.