

ABSTRACT

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Title of Paper: Anti Separation Performance of Solid Waste at Source: The Top-down Communication Design Approach Problem in the School community in Thailand.

Conference Theme: Communication Design in Education, Research and Practice

Separating solid waste at source is one of the most effective ways to reduce economic, sanitation and environmental problems caused by the increasing amount of inorganic municipal solid waste, its incorrect treatment and inappropriate waste management. It minimises non-recyclable and toxic solid waste disposal and optimises the final waste disposal. The existing communication design of solid waste separation system (SWSS) at source of university communities in Thailand has been enforced by the top-down policy approach. The study contends that this communication design approach is likely to cause users' anti separation performance of solid waste at source. This design and its enforcement tend to result in mismatch with users, disassociation with solid waste separation at source and malfunction of the SWSS because there is likely to be a lack of users' understanding and needs. The School of Architecture and Design community in King Mongkut's University of Technology Thonburi is selected as a case study. The university implements a designed solid waste separation communication system to the School – five color-coded dustbins on which a specific pictorial and informational sign representing each dustbin function is printed and a uniquely explanatory diagram fixed on the wall at the collection points. To measure the School users' source separation performance in relation to the implemented University's communication system, the study employs the solid waste separation and composition analysis for 5 consecutive days: counting the number of solid waste in the dustbins, sorting out the solid waste in relation to the specific color-coded dustbins, and calculating the incorrect and correct solid waste separation at source. The result of the study shows that 66.9 percent of solid waste is improperly separated by the School users. All color-coded dustbins have got all types of solid waste in the same waste composition ratio. The study suggests that the existing communication design of the SWSS is likely to be malfunction, causing anti separation performance of solid waste at source. It recommends that the University's solid waste separation communication system need to be redesigned in order to encourage the communal users to separate solid waste correctly.