Play In Public Spaces
As Part Of Persuasive Systems (PIPSAPOPS)
Keep It Simple

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Context
• Self-management is of key importance in the successful treatment of (exercise induced) asthma, including a focus on medication, education, and achieving the recommended levels of physical activity.
• Exercise-induced asthma affects 70-90% of the asthmatic children. We address the decrease of physical activity due to exercise-induced asthma.
• Goal: improve asthma control in children with asthma by means of smart sensing and coaching incorporated in a mobile gaming environment in daily life, to improve medication adherence, physical exercising, and learn children self-manage their asthma in a fun manner.
• We go beyond sedentary screen-based activities, and use movement-based game features as rewards.

System
Concept as reported in Cabrita et al. 2017:
• Promote physical activity by engaging children in a fun and exciting game
• Setting personalized physical activity goals based on the individual physical condition
• Promoting a fair competition among children with and without asthma

A Fitbit with an Android app is used to monitor and motivate physical activity, to provide Asthma education and to let users fill in questionnaires to monitor their asthma.

We use an interactive playground, a “camera-projection” system, as part of a reward system. We added feature updates in the playground game upon fulfilling tailored-set goals, based on the step-count, for physical active movement-based games in a waiting room of a hospital.

Simplicity
As part of the reward system we use feature releases in an interactive playground game. Zhao et al (2017) also showed desired positive effects of a feature release approach. To release features we at first had build a quite complex game that allowed for various game modes. The reward systems offered to open 5 different modes including an individual coin collection game, a tag-team vs tag-team game, or tag-team vs catch-team game. During user tests with children it became apparent that children did not understand the game, nor did many have the patience to wait for longer than a minute during explanation.

Instead, we build a much simpler game adding features to only the coin collection game. We added 4 simple extensions: an aesthetic upgrade, moving coins, an enemy detracting points, and power-ups. Based on our first observations, for this context it seems it is better to keep the “base game” simple, but this needs more investigation.

Why not consider to use simple adaptive movement-based games as part of your persuasive strategies?

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