

# PathMate: Effects of Ubiquitous Healthcare Information Systems on Performance of Obesity Expert and Teenager Teams

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## Overview

The prevalence of overweight and obesity in childhood has increased dramatically over the last decade (Sassi 2010). The PathMate project has therefore the objective to build and evaluate a healthcare information system (HIS) that has **direct effects on the performance** of obesity expert and teenager teams and **indirect effects on the outcomes of obesity programs** in Switzerland.



## Approaches and Results

A structured design-science methodology for the development of the HIS is adopted (Janzen et al. 2010). Design workshops with **eight overweight children, their parents and obesity experts** were conducted.

A pretest has shown that the HIS supports **perceived group cohesion** and that the children are **emotionally activated** during HIS use and that this arousal had a positive valence.

## Methodological Questions

1. How to build a **shared understanding** among computer scientists, domain experts (therapists) and patients?
2. How to use a **mixed methods approach** from social sciences, computer science and medical behavioral science for the design of HIS?
3. Which **interdisciplinary tools** can be adopted to evaluate IT-supported health interventions?



## Discussion

- Interdisciplinary research teams should transparently **communicate their goals and methods**.
- Adopting a **mixed methods approach** is inevitable to improve the outcomes of interdisciplinary projects.
- **Physiological and IT-based tools** (e.g. skin conductance measurement, log file analysis) can be used to build and evaluate IT-supported health interventions.



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## References

Janzen, S., Kowatsch, T., and Maass, W. 2010. "A Methodology for Content-Centered Design of Ambient Environments," in Global Perspectives on Design Science Research, 5th International Conference, DESRIST 2010, St. Gallen, Switzerland, June 4-5, 2010 Proceedings, R. Winter, J.L. Zhao and S. Aier (eds.). Berlin, Germany: Springer, pp. 210-225.

Sassi, F. 2010. *Obesity and the Economics of Prevention - Fit Not Fat*. Paris, France: OECD.