



PRESENTER

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Background

Literature Review. 117 papers studied to reveal the secrets behind successful self-tracking technology.

PAST Component

Some behavior change techniques **work better** than others.

PERIODIC TABLE OF SUCCESSFUL HEALTH BEHAVIOUR CHANGE

PRIMARY TASK SUPPORT	DIALOGUE	SOCIAL SUPPORT	SYSTEM CREDIBILITY	OTHER
Sm +5 Self-monitoring	Re +4 Rewards	Sc +3 Social Comparison	Au +2 Authority	Gs +5 Goal Setting
Pe +4 Personalization	Su +3 Suggestion	Sl +3 Social Learning	Rf +1 Real-world Feel	Pu +2 Punishment
Rd +3 Reduction	Rm +3 Reminders	Co +3 Cooperation	Ex +1 Expertise	Gi +1 General Information
Ta +2 Tailoring	Si +2 Similarity	Cm +2 Competition	Tr +1 Trustworthiness	Va +1 Variability
Tu +2 Tunneling	Pr +2 Praise	Rc +2 Recognition		
Su +1 Simulation	Li +2 Liking	Sf +2 Social Facilitation		
Rh +1 Rehearsal	Sr +2 Social Role	Ni +1 Normative Influence		

SELF Component

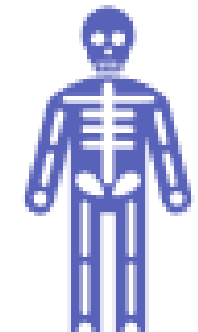
How can we **evaluate** self-tracking technology **effectiveness** in terms of health behavior change and user engagement?

UE can be measured through:



Self-reports
(e.g., emotions surveys)

Emotional Aspect



Physiology
(e.g., gaze, movement)

Cognitive Aspect



Analytics
(e.g., user action logs)

Behavioral Aspect



External Factors
(e.g., health, work, routine)

Environmental Aspect

Future Directions Identified

- Growing domain with high interdisciplinarity
- Large-scale Interventions
- Research with underrepresented sample populations (e.g., kids, seniors)
- Usage of out-of-the-box APIs (e.g., Apple HealthKit, Google Fit)
- Inclusion of theoretical foundations



Wearables suffer from dubious feature effectiveness and low user engagement.

Can we do better?

PAST SELF FRAMEWORK



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**PAST:
PERIODIC TABLE
OF SELF-
TRACKING
DESIGN**

An evidence-based tool to showcase the efficacy of different design components for HBC in ST.

A standardized framework to evaluate ST technology for sustained UE.

**SELF:
SELF-TRACKING
EVALUATION
FRAMEWORK**



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