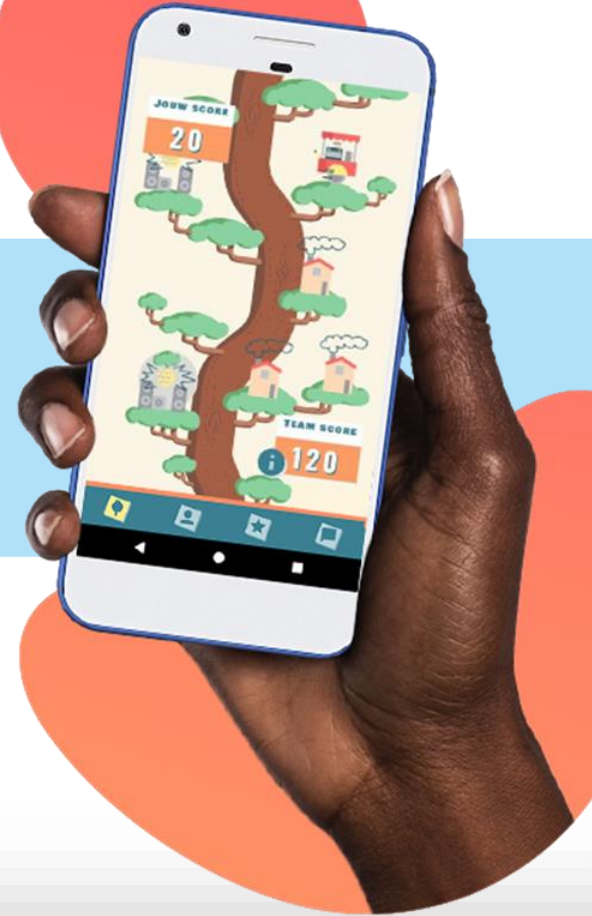


Grow It! app

Evelien Dietvorst MSc | PhD candidate | Department of Child and Adolescent Psychiatry/Psychology | Erasmus University Medical Center Sophia Children's Hospital | Rotterdam, the Netherlands



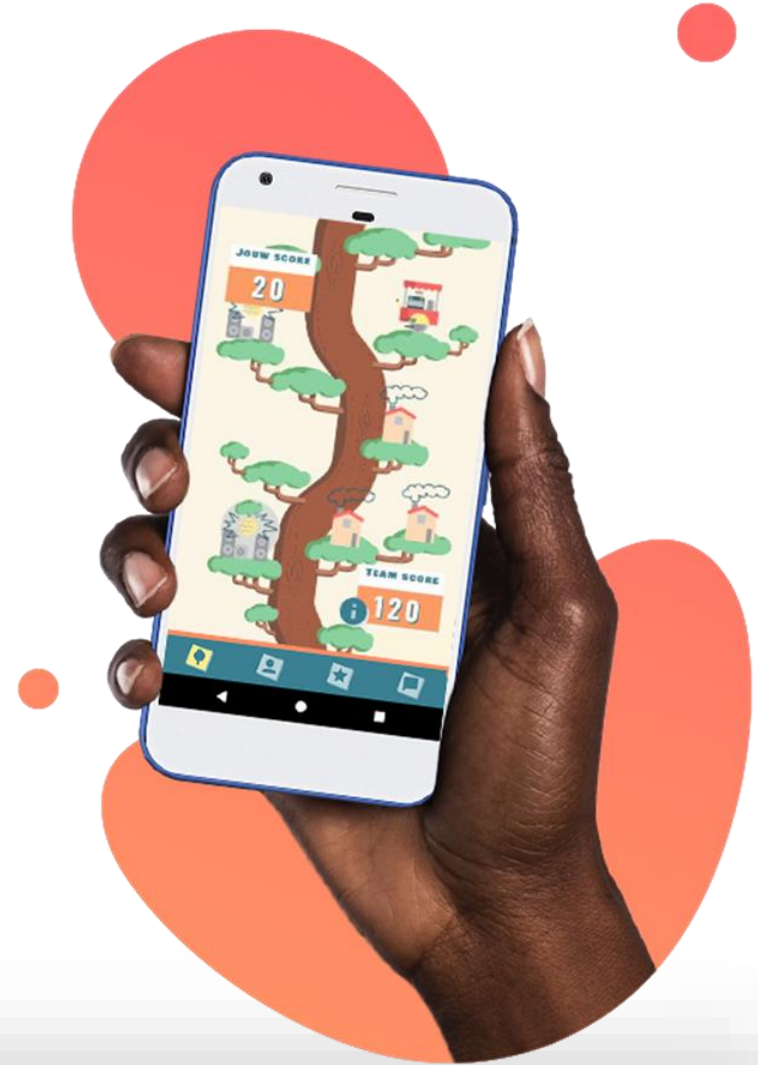
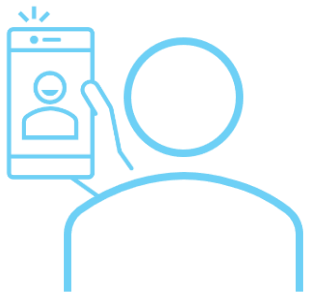


Je laat een boom groeien met je team (5-8 jongeren):

- Compete met andere teams

PUNTEN DOOR:

- Invullen van emotie vragenlijsten (ESM)
 - ✓ Inzicht in emoties
- Dagelijkse challenges uitvoeren
 - ✓ Omgaan met stress



1. Emotie vragenlijsten (ESM)

Right now I feel

relaxed

Very

Moderately

No

FURTHER

With who are you?

select one or more options

- Parents
- Friends
- Peers
- Unknown adults
- I am alone
- Other

FURTHER


Where are you now?


- Home
- At work
- At school
- Somewhere else


FURTHER

DAILY CHALLENGE


Pick a challenge!





 **BAKE A CAKE**

 **WHO ARE YOU**

 **DOGS QUIZZ**

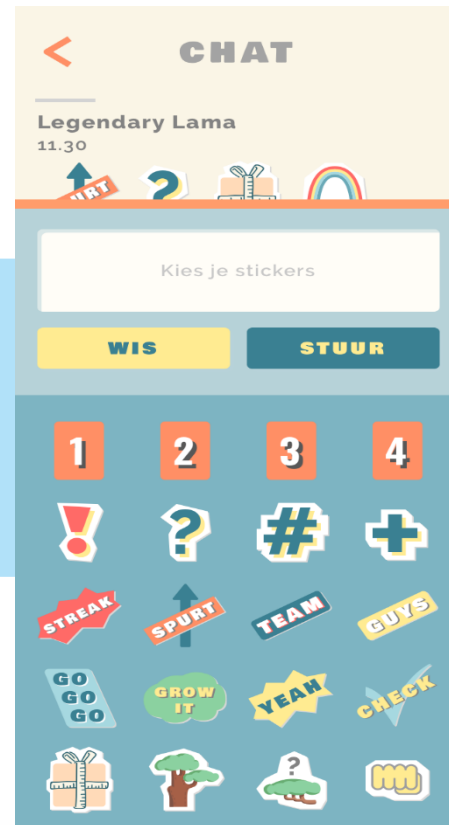
Earn extra points?
Do the photo check!

 **PHOTO CHECK**

2. Challenges

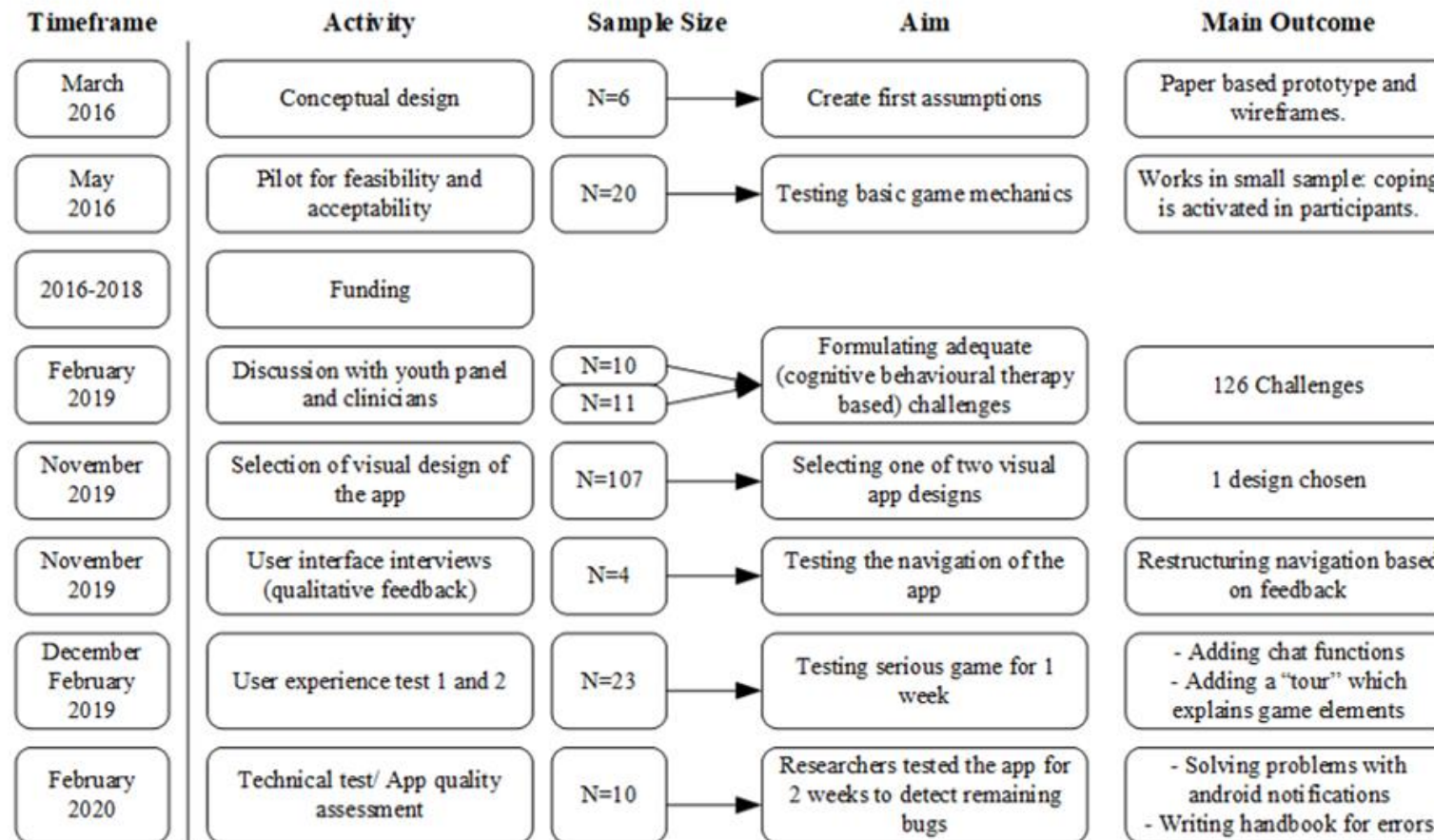
Chat function



Security & Privacy

- ✓ Accepted by privacy and security officers Erasmus MC
- ✓ Secure hosting
- ✓ No data saved on phone

Developmental process, acceptability, and feasibility of Grow It!



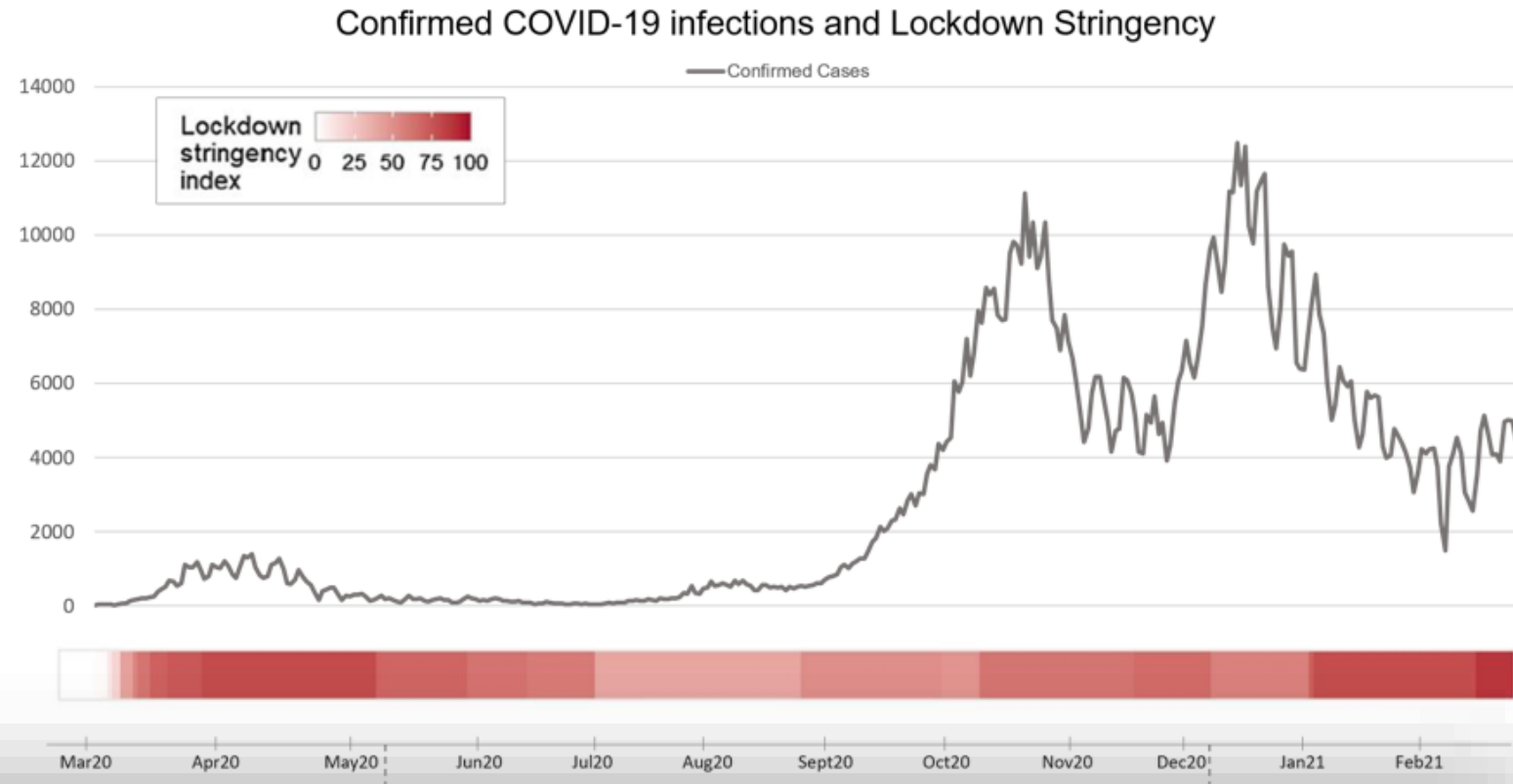
(Dietvorst, Aukes, Legerstee, Vreeker, Hrehovcsik, Keijsers & Hillegers, under review)

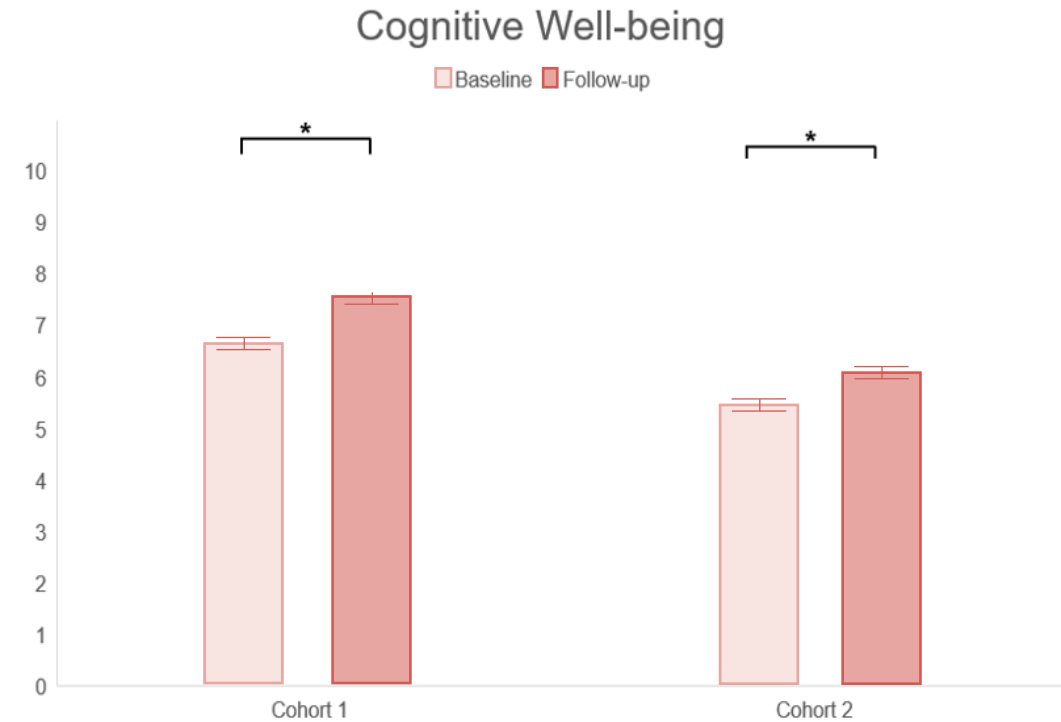
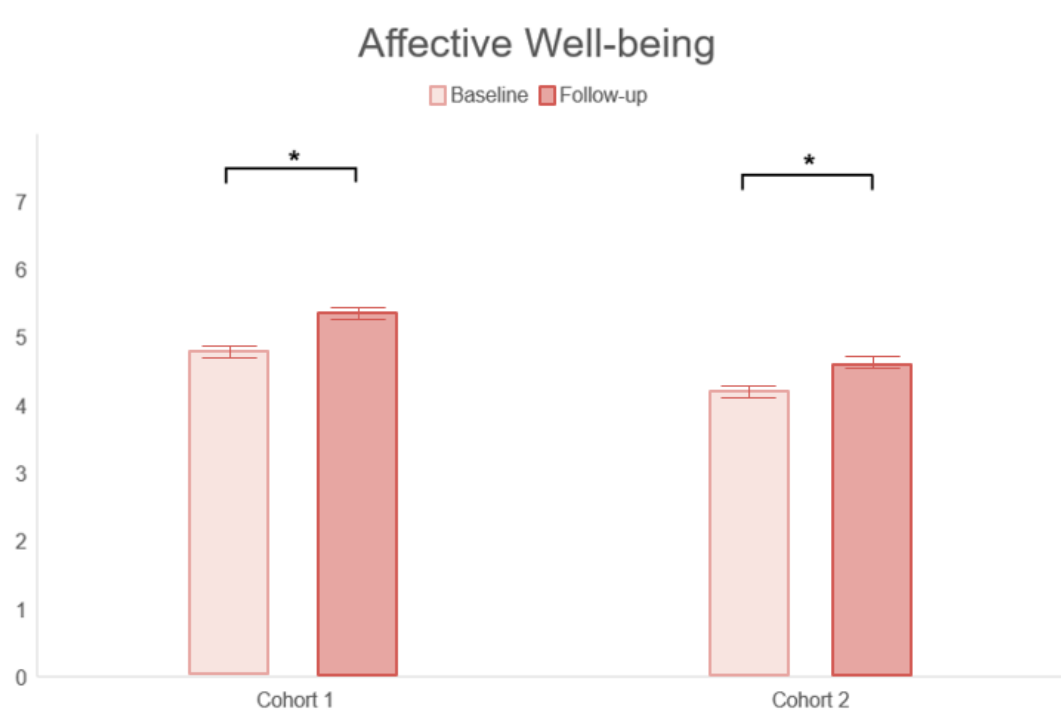
The Grow It! Serious Gaming App

Longitudinal Changes in Adolescent Well-being During COVID-19

- In this preregistered longitudinal study, we evaluated the multiplayer serious gaming app
- **First lockdown** (1282 adolescents (mean age 16.67, SD=3.07, 67.7% girls) and
- **Second lockdown** (1871 adolescents (mean age 18.66, ± 3.70 , 80.50% girls)
- Measures: demographics, affective and cognitive well-being, depressive symptoms, anxiety, loneliness, coping, and COVID-19 related stress.

(Dietvorst, Legerstee, Vreeker, Koval, Mens, Keijsers & Hillegers, in progress)



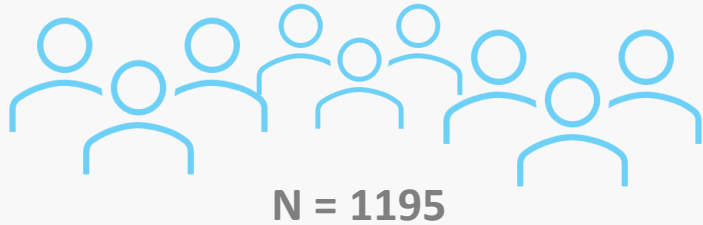


Affective well-being **statistically increased** [cohort 1 ($t(461) = -6.806$, $p = .000^*$, $d = 0.32$) and in cohort 2 ($t(732) = -6.77$, $p = .000^*$, $d = 0.23$)]

Cognitive well-being **statistically improved** [cohort 1 ($t(461) = -6.12$, $p = .000^*$, $d = 0.27$) and cohort 2 ($t(732) = -5.93$, $p = .000^*$, $d = 0.20$)].

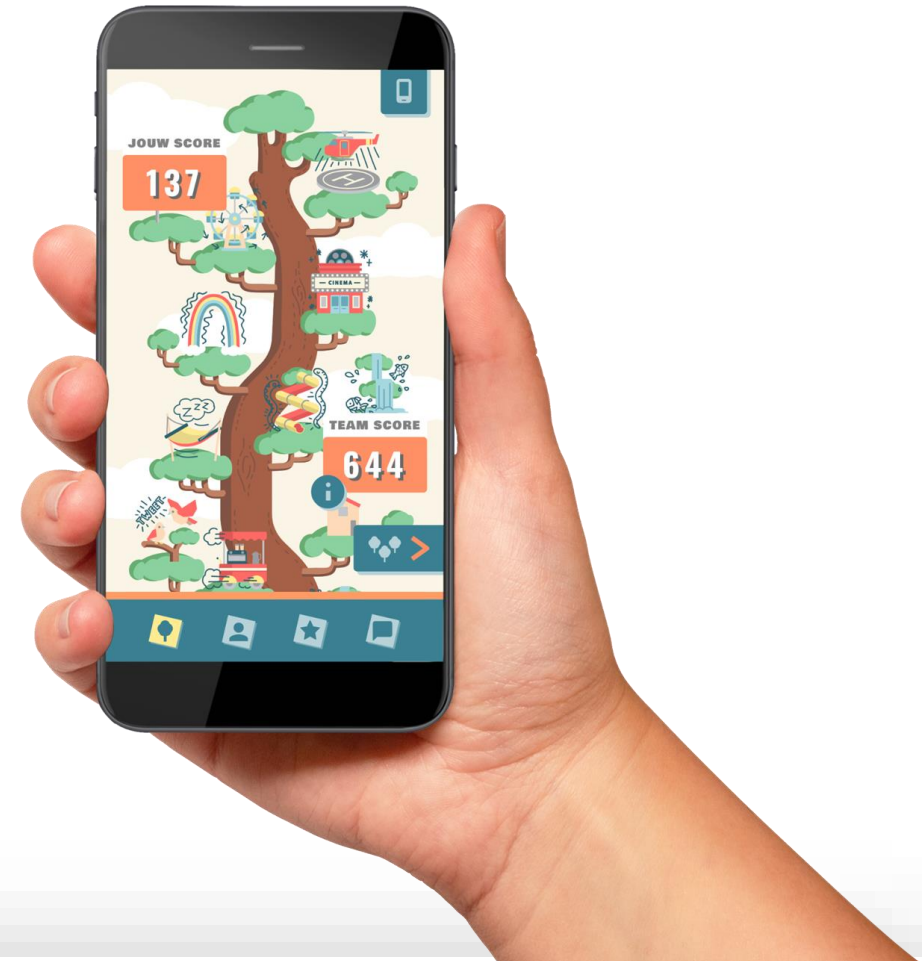
At the individual level, **41-53%** of the adolescents increased in their affective or cognitive well-being.

Sensitivity analyses were run in a regression framework to rule out confounders (e.g., COVID-19 stringency index) which yielded similar results)



Results, acceptability and feasibility

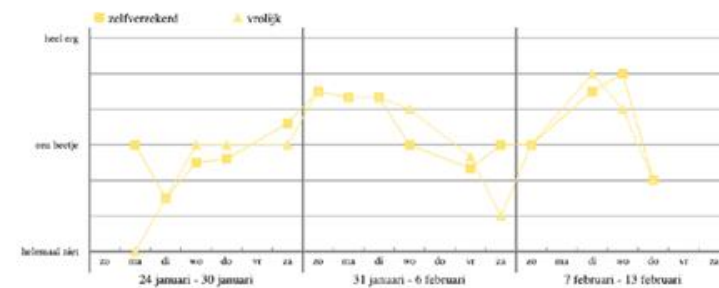
- Total rating of the app: **7.16** out of 10
- Rating app appearance: **7.87** out of 10
- **74.4%** would recommend the app to friends
- **70.2%** reported that the app stimulated them to reflect on their feelings
- **35.1%** reported that they have become more physically active



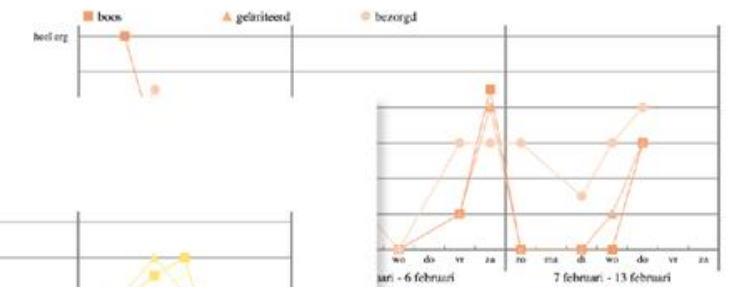
Future: The added value of personalized feedback “Emotion profile”



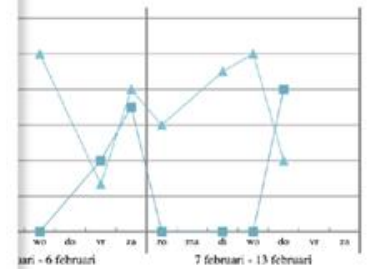
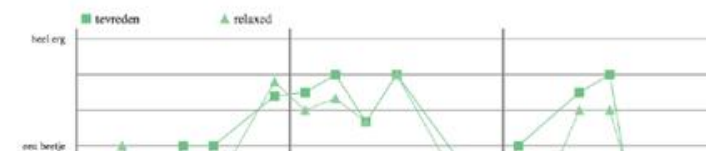
Hoge energie, positief



Hoge energie, negatief



Lage energie, positief





Project team:

Prof. Dr. Manon Hillegers

Prof. Dr. Loes Keijsers

Dr. J. S. Legerstee

Drs. L. van Vugt

