

Developing and testing an easy-to-use toolkit to design tailored behavior change interventions

Authors: Andrea Tamas, Ranas; Max N. D. Friedrich, Ranas; Miriam Harter, Ranas; Sébastien R. Mercier, Terre des hommes Foundation; Ola Sa'o, Cesvi; Issa Younan, Cesvi; Yaman Abuzahra, Swiss Tropical and Public Health Institute, University of Basel & University of An-Najah; Marco Verber, University of Applied Sciences and Arts Northwestern Switzerland; Maryna Peter, University of Applied Sciences and Arts Northwestern Switzerland

Background: The Hands4Health project targets handwashing with soap to reduce diarrhea among children and focuses on off-grid schools in rural Palestine and Nigeria. The holistic intervention approach of this project targets infrastructure improvements with subsequent behavior change interventions. For the behavior change part, we developed a theory-based automatic analysis toolkit that, being fed with some simple onsite questionnaire data, selects pre-designed, pre-tested and already contextualized behavior change activities targeting those behavioral factors that have been found most relevant in the selected schools.

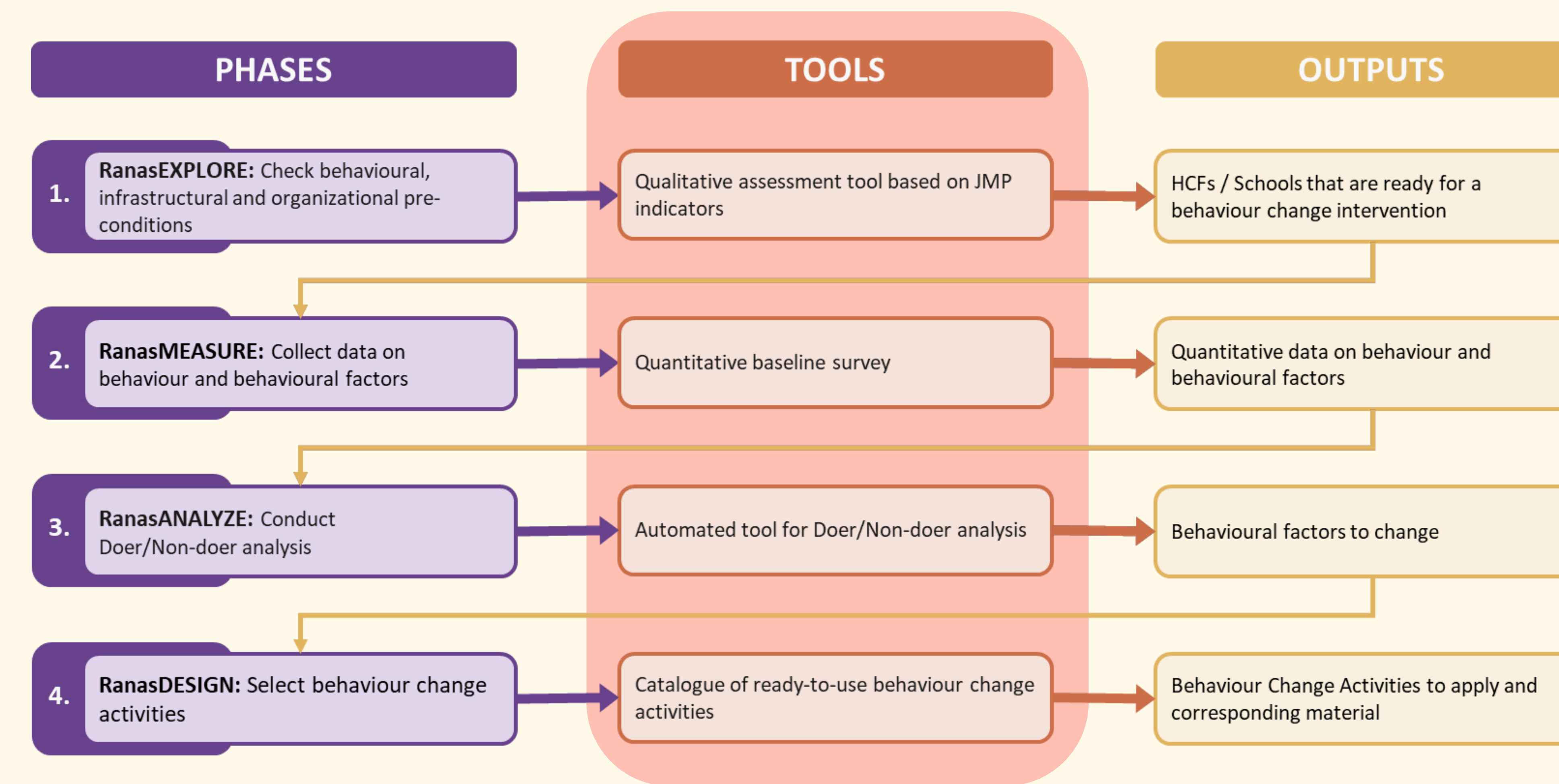
What is the Ranas4Schools toolkit?

Off-the-shelf toolkits that enable trained personal to implement behaviour change interventions that are

- ✓ evidence-based
- ✓ data-driven
- ✓ evaluated

The Ranas-Toolkits are **behaviour specific and context specific** and currently available for promoting

1. Handwashing with soap in schools in Nigeria and Palestine
2. Handwashing with soap in Health Care Facilities (HCFs) in Burkina Faso and Mali



How does the Ranas4Schools toolkit work?

Four tools have been developed for the toolkit:

1. Preconditions assessment
2. Quantitative survey
3. RanasANALYSER
4. Activity catalogue

These tools

- represent the first four phases of the RANAS approach
- can be used after a short training
- can be adapted to other behaviors and contexts

The innovation: Behavior change interventions are most impactful if they are precisely adapted to the behavioral factors that steer the selected behavior in a specific context. However, oftentimes behavior change interventions are developed for a country or a region, not taking into account school specifics. The Ranas4Schools toolkit only needs a small dataset from students from each school to provide an automated analysis. The ready-made activities are then selected based on the data and are thus tailored to the specific school.

Theoretical background: The toolkit was developed based on the RANAS model of systematic behavior change (Mosler, 2012). For each behavioral factor, a behavior change activity was developed, forming the **Activity Catalogue**, and pre-tested.

Data: After carrying out the **Preconditions Assessment**, the **Quantitative Survey** on the RANAS behavioral factors collected data in March 2023 from students aged 8-13 years in 14 intervention schools in Palestine, N ranging from 23 to 27 per school. The dataset was analyzed separately for each school using the **RanasANALYSER** comparing “doers” and “non-doers” of handwashing with soap. “Doers” were defined as those who “often” or “always” wash their hands before eating and after toilet-use, the others were defined as “non-doers”.

Results: Results show a pattern for all schools, but also specific characteristics. Three activities targeting the three most different behavioral factors between “Doers” and “Non-doers” for each school were selected from the **Activity Catalogue**. In 10 schools, an activity targeting **emotions** related to handwashing was implemented, 7 schools received a **barrier planning** activity, 5 schools implemented a **self-monitoring** activity, 5 did a **remembering** activity, 4 an **action planning** activity and 1 school each did activities targeting **cost perception, risk perception, social norm and personal norm**.

Examples of the four tools

Preconditions assessment

Precondition	Data source	Observation protocol
Behavioral: Is a part of the students at the school not washing hands in one of the critical moments?	Behavioral observation of students	
Infrastructural: Are functioning handwashing facilities available?	Observation in the school	
Organisational: Do the school's students have the time to participate in short interviews and campaign activities?	Interview with head of the school	

RanasANALYSER

Quantitative survey (KOB0)

► Behaviour

* **B_B1: How often do you have soap available at your school? image**

If then the answer is "almost never", the questions should be asked only for hand-washing

- (Almost) never
- Sometimes
- Half of the times
- Often
- (Almost) always

Activity catalogue

Activity 9. How do you feel while hand washing?

Costs	Difficulty	Duration (mins)
Low	Low	20

Factor of block: Attitudinal
Ranas Factor: Feelings
RANAS BCT: Describe feelings about performing and about consequences of the behaviour (9)

How to do the activity

Step 1: The worksheet with the different situations is posted on the board. It is important that all key situations from washing hands are in the exercise. Stickers with many different emotion cards are spread out on a table.

Step 2: Next, discuss the different situations together as a school class. Ask the students to explain what they see and how they feel about the situation. For this purpose, they take a suitable sticker, which is stuck to the situation. Mention that sometimes we can have fewer positive feelings, like disgust or shame about washing our hands once. Do not be afraid to choose negative feelings as well. Then, all the children can pantomime the emotion shown.

Step 3: In this form, either all or the key situations for hand washing can be gone through.

Tips: Alternatively, the worksheet can be distributed to the students, and they are asked to write their emotions on it. Afterwards, it is discussed together in class.

What you need: a Worksheet with images of hands washing situations, b Emotion card set
Remark: Can also be stickers like in the shown picture

Conclusions: Developing and using the Ranas4schools toolkit in Palestine proved to be feasible and practicable to be administered with minimal support by the local NGO. The implementation successfully took place in May and September 2023, evaluation is planned for March 2024.

Outlook: The activity catalogue can be adapted to other contexts and countries, providing the advantage to apply data-based and tailored, thus more effective behavior change interventions with only minimal additional effort. Moreover, the approach is currently being tested in different institutional settings (e.g. health care facilities) and for different behaviors (e.g. waste management). Data from only around 25 randomly selected students per school using a standardized questionnaire is needed to serve as the basis for the analysis.