Why use Explorative Self-experimentation?

AN ARGUMENTATION GUIDE FOR PUBLIC HEALTH

Premise
Due to increasing strains on healthcare systems worldwide, there is a need to move healthcare upstream, to focus on prevention and increasing the overall population health. Although many individuals intend to change their behaviour, there is much evidence for a gap between intention and action. Despite there being many “solutions” for changing health behaviours, finding an intervention that fits with one’s goal, personal preferences, as well as physical and socio-economic context is a challenge in its own right. A strategy is needed that helps individuals find health behaviour change intervention that work for them.

Definition
Explorative Self-experimenting (ESE) is a meta-strategy for helping individuals change and maintain personal health behaviours. The core idea is that individuals try out interventions themselves to see if they work, exploring their effect on personal behaviour in their own context.

Pros and Cons
+ ESE omits the need to design interventions that are suitable for everyone, as it helps individuals find and adapt interventions that already exist.
+ Engaging in the method once forms a mindset that users can re-applied over and over to changing other behaviours
- ESE requires a high-cognitive work load as a result needs some time and mental space to be effectively applied.
- Building ESE tools is challenging due to the high individuality of the method application

Five Phenomena Explorative Self-experimentation achieves:

**Taking Steps Towards a Long-term Goal**
ESE offers users a concrete starting point which leads them to take incremental steps towards a long-term goal. Users make progress towards their health goals and are aware of it! This leads to behaviour change as:
- ESE creates a sense of urgency by specifying a time-frame and by triggering a commitment and consistency bias
- Seeing progress helps satisfy user’s need for competence which leads to a boost in intrinsic motivation

**Getting to the Heart of the Issue**
ESE gives users a heightened awareness of their own behaviour. This leads to them identifying root causes and adjusting their goal to address these. This leads to behaviour change as:
- Consciousness raising helps users be aware of potential causes of “relapsing”, and thus helps avoid these
- It increases the perception of relevance of addressing the identified health issue leading to a higher intention to act

**Trial and Error to Success**
ESE promotes users to try multiple interventions in a short period of time. Users adopt a problem-solving mentality in that they identify barriers in their interventions and try to overcome them. This leads users to find interventions that fit, or at least identify what works or does not work for them. This leads to behaviour change as:
- The high periodicity of interventions increases the likelihood of finding a good fit
- Engaging in problem solving helps address contextual problems that may stand in the way of successful change

**Discovering New Perspectives**
Engaging in ESE leads users to new perspectives on personal agency in that they realise they can change their behaviour. It also helps users shift the blame for unsuccessful behaviour change attempts from them to the incompatible interventions. Some users attain a new attitude towards their own health in the priority they assign it, and most users make discoveries regarding their own behaviour tendencies. This leads to behaviour change as:
- An increase in self-efficacy leaves people more confident in their ability to change their own behaviour, and therefore more likely to pursue it
- A positive change in attitude towards the behaviour helps shape the intention to act

**Finding Support**
ESE is often a conversation starter between users and their close social circle. This results in many users finding social support. This leads to behaviour change as:
- Finding social support can aid in adhering to the behaviour

© Antonia Fedlmeier | Master Thesis TU Delft | March 2021
Seven core underlying needs of self-experimenters can be mapped onto the phases of the process framework. This shows that some needs persist across all phases, while others are localized to a single moment in the process. Knowing how the needs are spread across the various phases can inform which starting point to use for design solutions in each phase.

This guide provides two lenses from which to approach the challenge of facilitating explorative self-experimentation. The first is to design for the underlying needs of people wanting to change their health behaviours. The guide provides seven starting points that cater to the seven core needs of self-experimenters. The second approach is to consider the activities comprising each phase of the Explorative Self-experimentation process and design different ways to guide participants through them. The final part of this guide shows how the two approaches overlap, so designers know which needs to focus on in which part of the process.

How to Facilitate Explorative Self-experimentation? A QUICK GUIDE FOR DESIGNERS

Seven starting points for facilitating ESE:

1. PROVIDE GUIDANCE THROUGH THE PROCESS
   - Self-experimenters value feeling guided and knowing what to do. Some ways to provide guidance include:
     - A structured process with a clear starting point
     - Actionable tips and examples
     - Open questions
     - Guidelines for how to formulate a goal

2. PROVIDE INCENTIVE
   - A key component of changing behaviour is staying motivated over time. Some ways to provide incentives to keep going include:
     - Playful elements
     - Visual triggers / reminders
     - Visualising progress
     - Celebrating small achievements

3. PROVIDE INSPIRATION
   - Self-experimenters value being inspired during their exploration with different interventions. Ways to provide inspiration include:
     - Samples of proven behaviour change interventions
     - Examples of interventions others have found helpful
     - Presenting novelty and variety over time

4. MAKE ROOM FOR PERSONAL GROWTH
   - Self-experimenters want to learn about themselves in the process and feel personal growth.
   - Ways to make room for this development include:
     - Prompts reflection through questions
     - Having check-in meetings
     - Diverse interventions to have options to fail back on

5. FOSTER A RESILIENT MINDSET
   - A resilient mindset helps self-experimenters deal with setbacks on the journey to change their behaviour.
   - Some ways to foster a resilient mindset include:
     - Making things malleable to allow mistakes
     - Set-up malleable goals that can be adjusted along the way
     - Encourage hand-written commitments

6. GIVE IT A PERSONAL FEELING
   - Self-experimentation is a highly personal journey. Creating a personal attachment to the tools can help foster intrinsic motivation.
   - Some ways to give it a personal feel include:
     - Make it tangible
     - Leave room for personalization
     - Deliver high-fidelity tools

7. PROVIDE FLEXIBILITY THROUGH ADAPTABLE INTERVENTIONS
   - Self-experimenters value flexibility from their interventions.
   - Adaptable interventions pave the way for compatible solutions.
   - Some ways to provide flexibility include:
     - Create room for exceptions
     - Make tools compact and portable

Provide Guidance through the process:

1. DEFINE
   - What do users need to start self-experimenting? Help users get into the right mindset, define an issue and a goal as well as assess their current situation.

2. PLAN
   - How can users be facilitated in thinking of interventions to try out? Provide guidance for exploring interventions and creating a behaviour change plan.

3. PROBE
   - How can users keep track of their progress? Help users measure success and help them check-in regularly with themselves.

4. REFLECT
   - How can users evaluate if an intervention is working for them? Help users reflect on outcomes and make decisions based on their evaluation of the experiment.

Provide Aid in initiating:

- Help users get into the right mindset, define an issue and a goal as well as assess their current situation.

Provide Aid in Exploring:

- Help users keep track of their progress. Help users measure success and help them check-in regularly with themselves.

Provide Aid in tracking:

- Help users evaluate if an intervention is working for them. Help users reflect on outcomes and make decisions based on their evaluation of the experiment.

Provide Aid in Evaluating:

- Help users reflect on their outcomes and adjust their goals.

Provide Aid in Maintaining:

- Help users maintain their self-experimentation efforts. Alternatively, for users who find a compatible intervention, help them maintain their behaviour change.
What do I want to change?
1. LET'S EXPLORE THE ISSUE
   Are there any health-related issues in your daily life that you
   would like to work on? Write down any that come to mind and
   choose one to work on for the next weeks.
   Ex: bad posture, weight gain, lack of focus, low energy, stress,
   etc.

2. LET'S DEFINE A GOAL
   There is a difference between an outcome goal and a
   behavioral goal. An outcome goal is focused on the result
   of a behaviour, while a behavioral goal defines what you
   do. Losing 2 kilos is an outcome goal. Eating less food is a
   behavioral goal. What is your behavioral goal?
   TIP: Having SMART goals is known as an effective strategy for
   success in improving behavioral problems. Smart goals are
   those that are: Specific, Measurable, Actionable, Realistic,
   and Timely.
   Ex: Eat two meat-free dinners per week for one month; Put
   away all mobile devices and shut off all screens by 9 p.m. on
   week nights for one month.

3. LET'S SEE WHAT WE'RE WORKING WITH
   What do you need to achieve your goal?
   Ex: A yoga mat; running shoes, information
   What are barriers to reaching your goal? What makes it hard?
   What motivates you? What enables you to achieve your goal?

How will I tackle this?
4. LET'S EXPLORE POSSIBLE TACTICS
   What are possible interventions you can try out? Take
   some time to brainstorm – the more options the better. If
   one does not work out, you'll have plenty of others to fall
   back on.
   Ex: putting a reminder in the calendar; creating a visual
   trigger, downloading an app, asking a friend to be your
   referee...

5. LET'S MAKE A PLAN
   Which intervention(s) do you want to try first? Pick
   a concrete starting date. How will you know if your
   intervention is successful?
   Ex: You can use quantitative measures such as counting
   steps, weight, time, etc. Or qualitative measures such as
   checking how you feel.

How Will I check-in with myself?
6. LET'S TRACK YOUR PROGRESS
   Depending on your goal, you may want to check-in daily
   or weekly on how it is going. Find a way to keep track that
   suits you and your goal /intervention.
   Ex: you can keep track by journaling, using an app (for
   counting steps for example), or simply make check-marks
   on a calendar.

7. LET'S START EXPERIMENTING!
   Start trying your intervention. Check-in regularly with
   yourself. If you notice it's simply not working - move to
   phase 4.

What Did I learn?
8. LET'S EVALUATE THE EXPERIMENT
   How did it go? What are your barriers and enablers for
   maintaining this intervention? What improvements can you
   make?

9. LET'S REFLECT ON PERSONAL LEARNING
   What did you learn about yourself? What are the things that
   work or don't work for you? Is the issue you are working on
   still relevant? Or can you identify other root causes that need
   to be addressed first? Does your goal still motivate your?
   If not, make it more specific, or more ambitious, or break it
   down into something smaller.

10. WHAT'S NEXT?
    Based on your reflections, decide your next steps. Can you
    tweak your intervention or your goal so it better fits you and
    your context? Or is it better to try something entirely new?
    Perhaps even change your goal or issue?