

1. Motivation

- To empathize with users is crucial in design thinking.
- If designers can also participate and experience the same activities with users, they may understand more on users’ feeling and needs, to develop more suitable services for users.

2. Theoretical Background

Theory	Bodystorming	Co-creation
Main Idea	Designers experience designs as target audiences through hands-on practice.	To invite different disciplines to collaborate on practice-oriented projects in the same team.
Core Concept	1. Emphasizes empathy for users. 2. Developers personally experience the user's situation or context and design tools or products based on the context[5]. 3. By role-playing and simulating user contexts, the designed products become more user-friendly.	<u>Initially</u> - Defined as the act of two or more people collectively developing and creating projects.[4] <u>Recently</u> - Focus more on collaboration by workers from different disciplines and backgrounds within the same team. - More practice-oriented.[3]
In this Study	1. To experience mindfulness through bodystorming 2. To envision problems users might encounter 3. To develop ways to solve problems	Co-create with experts in related fields - pediatric occupational therapists - children's mindfulness therapists

3. Methods

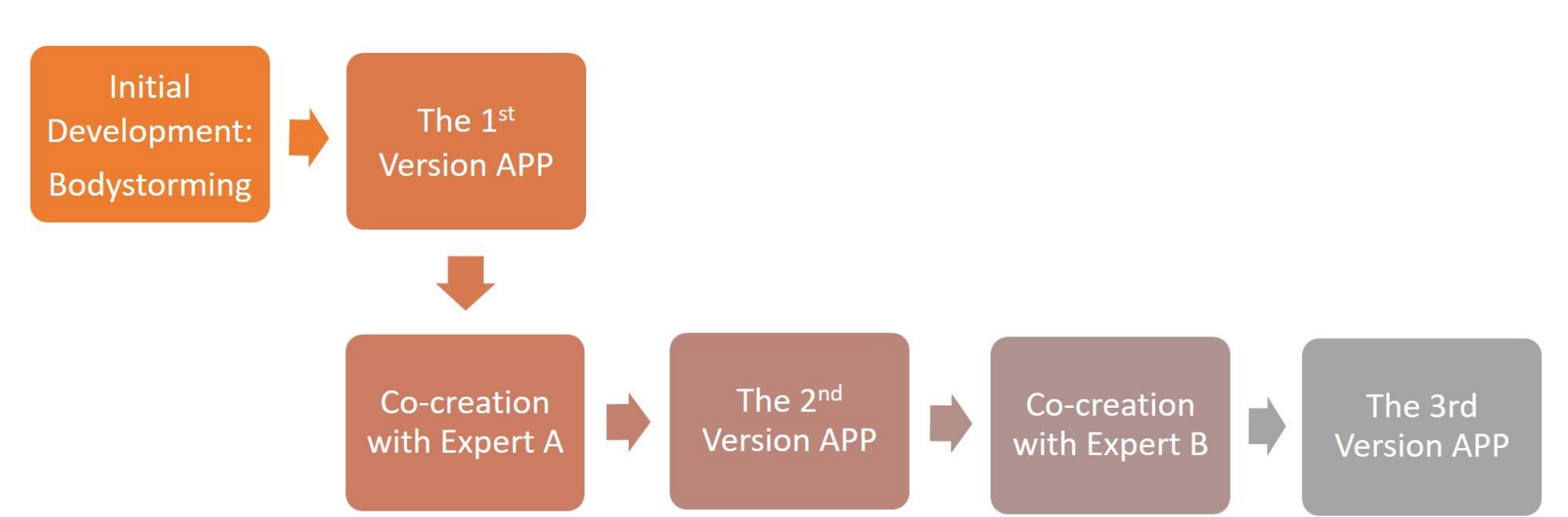


Figure 1: Development of the APP

- Initial Development (the 1st Version APP)
 1. Bodystorming in Team Meetings: to help designers experience and understand the mindfulness activities from the user's perspective.
 2. Course Content: to reference the book "Sitting Still Like a Frog“ by Snel (2013). Totally seven mindfulness exercises.
 3. Team Experience and Discussion: The principal investigator, and research assistants experienced the mindfulness practices together, discussing how to integrate technology to enhance children's mindfulness practice experiences.
- Co-creation with Experts (the 2nd & 3rd Version APP)

4. Results

- Research Team: to Experience the Mindfulness Activity
 - To use a frog as a metaphor (to symbolize stillness with a little frog's sitting posture)
 - Week 1: sensing breath and bodily changes
 - Week 2~7: course elements gradually increased, to include themes such as emotion management, self-awareness, and mindful eating.
 - The team members experience 7 mindfulness activities and develop possible approaches for utilizing digital technology for each practice.

Summary of mindfulness experience by the research team (Session 3 as examples)

Session	Core Concepts	Possible approaches for the System
3	<ul style="list-style-type: none">• Using repeated tightening and relaxing of body muscles to calm the mind while under pressure.• Stopping what you are doing to take a break and gather energy to continue focusing.• Recognizing current unpleasant feelings and using breath to adjust.	<ul style="list-style-type: none">• To display body parts on the screen mentioned in the guidance.• When the guidance mentions stretching actions, a scenario can be designed to guide children to perform the action together.• A balloon expanding and contracting on the screen to guide children's breathing.

- To develop the Interactive System Interface after Expert Co-Creation



Figure 2, 3: Interface for the Week 1 Practice, Figure 4: Interface for the Week 6 Practice

5. Conclusion

- This study illustrates the process of developing a children's application, demonstrating how personal experience and expert co-creation can lead to more suitable technology services.
- Throughout the iterative development process, both the experts and the system development team continuously reflected on how to implement each practice and integrate interactive technology.
- In the future, user testing with children is needed to verify whether the design team and experts' perspectives align with those of the child users.

6. References

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