

Analysis of ME5b: Planning an embodied co-design journey. Joint design of a movement-based co-design process with movement and design experts.

MeCaMInD Multiplier Event organized in UC3M by **Elena Márquez Segura, Ana Tajadura-Jiménez, Laia Turmo Vidal, José Vega-Cebrián, Judith Ley-Flores**
With the participation of MeCaMInD partners: **Robby van Delden, Dennis Reidsma, Maria Normark, José Font, Maximus Kaos, Lars Elbæk.**
With the collaboration of six professionals in the health and wellbeing fields.

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Introduction

ME5b Planning an embodied co-design journey was a multiplier event to disseminate the MeCaMInD cards in a context of health and wellbeing professionals. Attendees were MeCaMInD partners and volunteers, UC3M design researchers, and 6 professionals in the health and wellbeing field, in concrete in physiotherapy, movement-based technology design, and dance. Our participants involved 5 physiotherapists and 1 dance therapist, who are experts in exercise and acquired brain damage; motor and chronic pain disorder; emotion regulation through movement; and pelvic floor rehabilitation.

The event generally had a presentation + workshop structure. In the presentation, the MeCaMInD project and the resulting cards were introduced to the health and wellbeing professionals. During the workshop, the goal was investigating the applicability of the MeCaMInD cards (method, mood setters, and modifiers) in instrumental and normative domains. **This document focuses on reporting results from the workshop.**

Methodology

The workshop was scenario-based, and would place some participants in the role of professionals in the health and wellbeing fields (the professionals attending the workshops), and interaction designers (IxD) and researchers, some of whom were experts in movement-based methods and/or design methods cards (MeCaMInD partners and volunteers, UC3M design researchers). The professionals were grouped according to their focus, along with Interaction Design (IxD) and movement-based design experts.

The following table summarized the focus of each of the four groups, and the partners who were present in them:

Group number	1	2	3	4
Focus	Exercise & acquired brain injury	Motor and chronic pain disorder	Emotion regulation through movement	Pelvic floor rehabilitation
MeCaMInD partners + UC3M Facilitators	Robby van Delden Maria Normark José Vega	Lars Elbæk Maximus Kaos Judith Ley-Flores	José Font Laia Turmo Vidal	Dennis Reidsma Ana Tajadura-Jiménez

The goal of the workshop was to co-design a joint collaboration project featuring movement-based design methods that would focus on designing technology to support their patients. The workshop would focus on selecting which methods would be most appropriate for the joint collaboration. To assist this work, each group would use a set of MeCaMInD cards, which would be selected and used to: i) understand the design context; ii) design technology to support the practice; iii) and/or evaluate this technology.

Prior to the workshop, MeCaMInD partners and volunteers and UC3M design researchers had organized a preparation session focused on pre-selecting a series of cards that would be used during the workshop.

Data collection

Both the preparation session among MeCaMInD partners and volunteers and UC3M design researchers, and the workshop were video recorded with four GoPros cameras: one per group. Additionally, a person per group took notes of the curation process focusing in particular on which cards were selected and why.

During and after the workshop, we asked the participants about their (pre-) selection of cards in the joint design process, and about the use of cards during the workshop. We specifically asked if and how the cards were considered helpful, and ways to improve the cards. We asked them if new methods had emerged that could be incorporated to the cards. Last, we asked the health and wellbeing professionals if and how they would find the cards useful in their practice. These questions were first discussed in each group, documented by a person per group. Later, main insights were shared in a joint group.

After the preparation session and workshop, four UC3M design researchers analyzed the notes gathered by each group as well as the video material, which was used to complete the notes. In the following, we report the main results of the preparation session and workshop.

Results

Preselection of Cards

As a preparation activity for the workshop with the professionals, the MeCaMInD partners gathered in their groups to preselect the Methods, Mood Setters and Modifier cards that they would use.

In the following table, we summarize the strategy that each group used for preselecting their cards, along with the number of Method cards and Mood Setter cards they chose. In general, groups chose their cards thinking about the specific aspects and needs they thought the target practitioners would have. We can see that, in general, Group 4 went for a broader approach, selecting 24 Method cards and 11 Mood Setter cards in total, the former for the sensitizing, design/ideation, and evaluation stages, and the latter for the warm-up. In contrast, Group 3 only went for a total of 6 Methods cards and 3 Mood Setters, choosing them as options to focus on depth.

Regarding the Modifier cards, all of the groups used them, either as complete categories or a selection of them. However, we do not have a fine-grained account of their use.

Group number	1	2	3	4
Focus	Exercise & acquired brain injury	Motor and chronic pain disorder	Emotion regulation through movement	Pelvic floor rehabilitation
Strategy for Preselection of Cards	<p>Everybody selected Methods cards first, then Mood Setters.</p> <p>The selection was made with the aim of asking experts about their current practice, and also with the aim of empathizing with the patients based on what could be gathered about their background. Some cards were discarded considering the patient's capabilities, i.e. because they seemed very cognitively focused and could presumably not be adequate for some patients.</p>	<p>One person chose Methods cards and another Mood Setters. The third, new to the cards, assisted and learned about the cards. The first two shared their choice, which was discussed among the whole group, and a smaller selection of cards was done.</p> <p>Cards were selected thinking about the practitioner's context regarding available materials, amount of people, and imagined capabilities (physical and creative) that they and their patients would have. Emphasis on need for documentation yielded one particular method cards.</p>	<p>Method Cards and Mood Setters were chosen interchangeably.</p> <p>The selection of cards was done based on their expected relevance to the domain at focus: dance, emotions, emotion regulation, and for adults. Partners envisioned and created a sequence/narrative with the methods that they would follow along with the practitioners. They selected more than the ones they thought would be used, in order to have a palette of options.</p>	<p>Everybody selected Mood Setter cards first, for the warm-up phase, and then Methods cards for the different stages of design.</p> <p>The aim of the card selection for the first phase was to build personal trust and to look at methods of body self-awareness. This was based on the perceived sensitivity of the subject. For the next phases, cards were chosen based on their proven potential of aiding in design processes, as accounted by one of the partners.</p>
# of Method Cards	14	7	6	24
# of Mood Setters Cards	7	7	3	11

Regarding the actual cards that were selected, in the following table, we present the 27 different Method cards that were present in the preselection across groups, along with the number of groups that preselected them. We can see that two cards, **Grow Body Awareness** and **Sensing Through Objects**, were chosen by the four groups, and four cards, **Action Mock-up**, **Body Scan Meditation**, **Daily Movements**, and **Explore Movement**, were chosen by three groups. 10 cards were chosen by two groups, and the remaining 11 cards were selected by one group only. It seems that the cards that were chosen by fewer groups included more specialized methods that either were better known for the people in those groups or were considered better suited for the specific context. We find it worth mentioning that even though Group 3 was one with fewer cards in their preselection, all of those cards were used by at least one other group.

Method card	Total	G1	G2	G3	G4
Grow Body Awareness	4	x	x	x	x
Sensing Through Objects	4	x	x	x	x
Action Mock-up	3	x	x		x
Body Scan Meditation	3	x		x	x
Daily Movements	3	x	x		x
Explore Movement	3	x		x	x
Build and Describe	2	x			x
Context Playing	2	x			x
Embodied Sketching	2	x			x
Empathy in action	2			x	x
Generate Movement from Imagery	2		x	x	
Movement-Scenario	2	x			x
Roleplaying	2		x		x
Strong Prototyping	2	x	x		
What Can I Do With This?	2	x			x
Wizard of Oz	2	x			x
Collaborative Somatic Inquiries	1				x
Context Bodystorm	1				x
Digital Twin Sensitising	1				x
Embodied Bodystorming	1	x			
Forum Theatre	1				x
Generate Games from Play	1				x
Material Props in Context	1				x
Object Theatre - Stakeholder Drama	1				x
OWL Body Props	1				x
Sensitising Designers	1				x

Soma-slowstorm	1				x
Video or Photo Sketch	1		x		
Total	28	14	8	6	24

Similarly, in the following table we present the preselection of 19 different Mood Setter cards. In this case, there was no card chosen by all four groups, and there was only one card chosen by three: **Turn on a Body Part**. Then, seven cards were preselected by two groups, and the remaining 11 cards were unique among groups. Again, the smaller preselection of cards by Group 3 intersected with at least one other group.

Mood Setter Card	Total	G1	G2	G3	G4
Turn on a body part	3	x		x	x
Add-on	2	x			x
Back Mirroring	2	x			x
Bubblegum Queen	2		x		x
Mirror in Circle	2		x		x
Opposites Moves	2		x	x	
Silly Walks	2			x	x
Tumbler	2		x		x
Action Syllables	1	x			
Blind Imitation	1				x
Clap Cross	1		x		
Copy Dance Theme	1	x			
Creative Collaboration	1	x			
Leading Hand	1		x		
Positive and Negative Space	1				x
Shrinking Ship	1				x
The Body Mover	1				x
What Are You Doing?	1		x		
Write your name	1	x			

Use of the cards in the workshop

Regarding the joint design process targeting the design of technology to support the experts' practice, the cards were **considered helpful** in the following ways:

- To better **understand and design the design context**, e.g. as a visual guide of the types of physical interventions the experts engaged with.
- To prepare designers and/or researchers for design, e.g. **sensitizing** them and developing empathy towards the target population.
- To **support ideation**, e.g. as an assortment of possible ideas and solutions.

- To generally think well about the methodological considerations involved in a design process, e.g. as a way to **ignite discussion** and **compare methods**.
- As **visual examples** of categories or elements, used to complement descriptions of designs, e.g. the technologies involved in a given prototype.

Regarding **routes for improvement**, the experts considered that the cards:

- Could be clearer in their descriptions and/or illustrations.
- Required a lot of time and attention to understand them to be able to use them during design.
- Would present a steep learning curve and would probably require the accompaniment of an expert facilitator to know which one to use, why, and how.

In general, the experts were not very familiar with the methods in the cards. This, combined with the number of cards in most of the groups and the collaborative goal with a limited amount of time, made the first impression very overwhelming for most of them.

However, when asked about it, the practitioners considered that the cards could be useful in their practice in the following ways:

- For **preparing sessions**
- For planning and using **warm-up** activities
- For **sensitizing** their patients or collaborators
- For **communicating interactively** with their patients, e.g. by using cards as visual and tangible examples that could be chosen or arranged in a table.
- For creative needs in their sessions, e.g. to help with **improvisation**, or as creative inputs
- For instilling a **playful** atmosphere.

Additionally, new possible cards were suggested by the practitioners. They suggested methods that they already use and weren't reflected in the cards, such as cognitive warmups, Simon says, mirroring and constrained movements. Additionally, they proposed new classes of modifiers and mood setters, such as the **senses** used during and activity, **music types**, and **physical environments** for the activity.

In summary, they found that the cards could help them during ideation and planning of their sessions, as well as a way to work with sensitizing, communication, discussion and playing with their patients. The main obstacle they found when using the cards was that there were lots of them and their descriptions or illustrations were not necessarily very clear. The practitioners observed that they would require a longer onboarding process with an expert to be able to fully leverage them.