

# Confidence in Movement-Based Game Design Facilitation: Learning From a Novice Design Facilitator

Lærke Schjødt Rasmussen, Philip Wolfgang, Maximus Kaos and Lars Elbæk

Department of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense, Denmark

[lshjodt@health.sdu.dk](mailto:lshjodt@health.sdu.dk)

[pwolfgang@health.sdu.dk](mailto:pwolfgang@health.sdu.dk)

[mkaos@health.sdu.dk](mailto:mkaos@health.sdu.dk)

[lelbaek@health.sdu.dk](mailto:lelbaek@health.sdu.dk)

**Abstract:** Several movement-based and embodied design methods have been developed to supplement existing game design methods. Facilitating movement-based design methods is a practice that most game designers must master. Facilitation involves taking on several responsibilities and roles to ensure processes and activities follow the design project's principal values. For instance, the facilitator must possess design expertise and social awareness, be a direction setter and trust builder, facilitate stage engagement and mood, energise for commitment, and maintain a playful attitude. The many responsibilities and significant involvement will inevitably affect the facilitator, who enters an affective state facilitating the design activities. Through a phenomenological comparative analysis, this study explores how novice versus experienced facilitators perceive the emotion of confidence and its implications on the facilitation process. This analysis is based on a single case study of a two-day movement-based sports innovation camp for 80 K-12 high school students. Empirical data were generated using a combination of observations and interviews with seven of the involved facilitators: three experienced facilitators and four novice facilitators. Our research indicates that facilitation can be categorised into three stages focused on (1) Structure, (2) Process, and (3) Content. Reaching the Content stages requires a high bodily involvement closely linked to the facilitator's confidence level, which we partially interpret as determined by the courage to use one's body as a facilitation resource. Thus, the facilitation Process depends not only on the facilitator's level of expertise but also on confidence level and courage. Consequently, we recommend thorough preparation for each facilitation stage to support the facilitator's confidence. Structure: Outline a detailed playbook, organise the physical space and prepare necessary materials. Process: Prepare strategies for providing guidance and feedback. Content: Implement Movement-Modifiers and participate in warm-up activities.

**Keywords:** Movement-based design, Embodiment, Facilitation, Design expertise, Exergame, Education

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## 1. Introduction

In the overlapping fields of game-based learning and Human-Computer Interaction, there is a growing interest in working with the body, entailing the use of movement in designing. Body and movement are seen as sources of creativity and acknowledged as a way for designers to engage in design challenges in pursuit of insights (Loke and Robertson, 2011; Reidsma et al, 2022; Segura, Vidal and Rostami, 2016). In exploring methods and outcomes of movement-centric design practices, the importance of facilitating the right mindset and way to act through the design activities has been highlighted as crucial elements (Reidsma et al, 2022; Elbæk et al, 2022).

Mosely, Markauskaite and Wrigley (2021) define design facilitation as “the act of drawing on and applying design processes and approaches to enable dialogue and ideas to emerge within participatory design contexts...” (p. 11). Drawing on Loke and Robertson (2011) and Segura et al (2016), the role of the facilitator of movement-based design methods may encourage a ‘movement first’ principle and the use of the participant's own body as a source of knowledge, inspiration, and judgement.

Facilitation is a practice that most game designers must master now and in the future (Reidsma et al, 2022; Dahl and Sharma, 2022). Thus, it is an educational subject for competency building. The literature acknowledges that developing design facilitation expertise involves a reflective practice (Mosely et al, 2021; Dahl and Svanæs, 2020). Self-awareness and awareness of one's role may be essential in developing reflective facilitators (Dahl and Sharma, 2022). Being a facilitator requires many responsibilities and involvement, which inevitably affect the facilitator, who enters an affective state when facilitating the design activities. Fuchs and Koch (2014) state how motion and emotions are intrinsically connected as one is *moved by movement* and *moved to move*. Emotions are felt from the inside and are often displayed in expression and behaviour. In the social sphere, emotions are characterised by various potential movements related to an actual or implicit other. As Johnson (2017) states, “those who facilitate design learning must steadfastly negotiate their own fears as they lead others into the disequilibrium, uncertainty and radical reframing that reliably occur when designing” (p. 129).

Reviewing the literature on facilitation, no research on the interconnection between movement experience and facilitator experience was found. Different studies explored the influence of design expertise on the quality of facilitation (Reidsma et al, 2022). The success of a design session is partly dependent upon the facilitator's guidance and feedback (Mosely et al, 2018; Slovak et al, 2017; Lee et al, 2014). However, a certain design expertise level is required so that the design thinking methods can be successfully taught and given feedback. We recognise that being a novice or experienced facilitator might affect the affective state and, subsequently, the facilitation process. In the traditional design thinking facilitation, Mosely, Wright and Wrigley (2018) interlink seven ways of operating in design practice: result-focus, convention-based, situation-based, strategy-based, experience-based, developing new schema, and redefining the field with the design expertise levels stated by Hubert Dreyfus (1992). They correspond with the seven 'levels of design expertise': 'Naive', 'Novice', 'Advanced Beginner', 'Competent', 'Expert', 'Master' and 'Visionary'.

Reidsma et al (2022) propose facilitators to build a safe environment. Still, little research explores the effects when facilitators themselves experience low confidence in their facilitation competencies, such as including their body as a facilitation resource. Thus, we examine the relationship between facilitators' confidence levels and how this impacts the inclusion of their bodies to set the stage for a movement-centred design process. Informed by Fuchs and Kock (2014), this paper explores the interactions between the facilitator's affective state, the level of expertise in the view of the novice-expert continuum, and the facilitation context and how they affect the facilitators' approach to the facilitation process.

We investigate the embodied affectivity of the facilitators leading a two-day sports innovation camp Bright over Night Movement 2022. We describe the case and our comparative phenomenological analytic approach. Our analysis shows three stages of movement facilitation which facilitators may alternate between. The facilitation process depends on the facilitator's level of expertise and the confidence level in which courage is crucial for bodily involvement. We embed our discussions in both the existing literature and the context of our own experiences, leading to the development of essential guidelines for facilitators. Thorough preparation for each facilitation stage can support the facilitator's confidence level. Outlining a detailed playbook and preparing necessary materials and design tools, preparing extra Mood Setters and feedback strategies, implementing Movement-Modifiers, and participating in warm-up activities are some of our recommendations for facilitators who aim to enact all stages of facilitation.

## **2. Background**

### **2.1 Facilitator Roles and Responsibilities**

Design studies in Human-Computer Interaction specifically address a facilitator's involvement is limited. However, research explicitly focusing on facilitation acknowledge the facilitator as one of several influential 'forces' in the shaping of the design process (Dahl & Svanæs, 2020; Wróbel, Cash & Lomborg, 2020; Mosely et al., 2021). A facilitator must navigate several complex contexts, shoulder many roles and responsibilities, and manage various social dynamics between the facilitator and/or the participants. Facilitators who are not aware of the social dynamics can pose a threat to the democratic and empowering characteristics of a design process as the strongest party otherwise has the potential to take over (Dahl and Svanæs, 2020; Slovak, Frauenberger and Fitzpatrick, 2017). As such, the facilitator must pick up, identify, and work with all complexities that exist in all groups involved in the process, including themselves, participants and stakeholders. Hogan (2005) notes that facilitators should recognise that groups work in different ways, and the social context and dynamics of the group shape the way facilitators need to act to enable a group process that is both structured and flexible. How facilitation is enacted can significantly impact activities, participation, processes, and outcomes. At times, the facilitator should provide firm guidelines and clear rules; other times, they may need to respond with high energy, cajoling, offering and enthusiastically accepting ideas (Balfour 2016; Dahl and Sharma, 2022; Reidsma et al, 2022; Wróbel, Cash and Lomborg, 2020). Facilitation depends on the individual facilitator, as the facilitator does not only set the rules and constraints but is always there personally, carrying out the activity (Dahl and Svanæs, 2020; Mosely, Markauskaite and Wrigley, 2021).

Design methodology research outlines several key aspects of facilitation, including the ability to deal with the uncertainty associated with complexity, multi-disciplinary, and outcomes that are not – and are not supposed to be – foreseeable in the early phases. Design projects are about exploring unknown possibilities; thus, the design outcome cannot be predicted before the design process. Therefore, uncertainty is a fundamental element in design practice (Daalhuizen, Badke-Schaub and Batill, 2009; Cross, 1990; Liedtka and Ogilvie, 2011) and requires perceptive and observant facilitators who can guide and inspire the participants and set direction for the design activities (Dahl and Sharma, 2022). Consequently, facilitators must bear a leadership responsibility

(Reidsma et al, 2022). Moseley et al (2021) argue that leadership skills are central to facilitating and implementing emerging ideas into organisational practice.

Dahl and Sharma (2022) identify six facilitator role facets corresponding to a set of responsibilities and strategies that foster a productive design facilitation process being (1) Trust builder, (2) Enabler, (3) Inquirer, (4) Direction setter, (5) Value provider, and (6) Users' advocate. However, these role facets do not necessarily pertain to movement-based design processes. Reidsma et al (2022) instead suggest four roles that facilitators can adopt and alter during a movement-based design process: (1) Game master and Instructor, (2) Coach and Mediator, (3) Role model, and (4) Initiator and Animator.

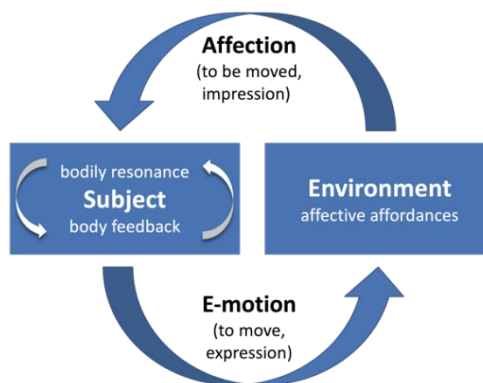
## 2.2 Facilitating Movement

Movement-based design methods place the body at the centre of design activities (Reidsma et al, 2022; Segura et al, 2016; Loke and Robertson, 2011). Loke and Robertson (2013) argue that focusing on the moving body necessitates rethinking existing design approaches. We argue that this must also include the facilitation process. Luck (2007) emphasises the importance of facilitating design dialogue in cognitive-based activities and argues how facilitation expertise is performed and revealed in conversation. In facilitating movement-centric contexts like HangXRT bodystorming, however, Segura et al (2016) emphasise the importance of encouraging idea explanation through physical enactment rather than simply describing it verbally. Reidsma et al (2022) describe different levels of facilitator involvement ranging from "inside, playing" to "outside, observing and controlling" in movement-centric design. Undertaking the role of Role Model and Animator requires the facilitator to step into the design activity more immersed. For instance, the Role Model is seen as an 'undercover facilitator' in which the facilitator engages in the group activity and plays it out to help others participate (Reidsma et al, 2022). The Animator role focuses on animating movement instead of instructing specific movement techniques. This role begins with full active involvement, with the facilitator immersing themselves in the activity (Börghall, 2019). Consequently, facilitating movement-based design activities adds complexity to the facilitation as the facilitator must put into play one's own body. This requires additional resources from the facilitator, such as body awareness and experience in body movement, e.g., dance, acting or sports training (Reidsma et al, 2022). The need for a spectrum of competencies also diversifies what facilitators provide to the design process, resulting in facilitators approaching roles depending on their (movement) background and experience. Reidsma et al (2022) elaborate that a facilitator's key role is to create a safe environment, as people may otherwise feel exposed or embarrassed when asked to include movement as a design resource. Other research concurs with this notion that not everyone feels sufficiently competent in their bodily abilities to provide meaningful contributions to the design activity (Segura et al, 2016; O'Shaughnessey and Ward, 2014). As such, the degree of confidence concerning bodily competence may hamper the open exchange of ideas that movement-based design methods should evoke. Based on this outline, two separate domains become apparent: (1) The facilitator as an individual, counting the body, senses and emotional perception, and (2) the context in which the facilitator is centred. Fuchs and Koch (2014) present the theory of Embodied Affectivity, which examines the emotional interplay between a subject and the environment and the interaction between bodily resonance and body feedback, which occur as an internal process within the subject. The theory provides a suitable framework for our analysis when examining the properties that exist between the facilitator and the environment.

## 1.3 Embodied Affectivity

The theory of Embodied Affectivity explains the complex relationship between emotions, senses, and the body concerning different environmental or situational contexts (Fuchs and Koch, 2014). The theory's first aspect occurs between the subject and the environment. According to Fuchs and Koch (2014), emotions are not exclusively internal phenomena confined to the psyche or the brain. Instead, the environment can have affect-like affordance qualities that impose impressions on the subject. Likewise, these impressions may spark certain actions concerning the body. Gibson (1979) explains how the environment can invite certain action possibilities; for example, a playground environment invites individuals to use their bodies for play. As such, an emotional feedback cycle exists between the subject and the environment, referred to as *affectivity* (Fuchs and Koch, 2014).

Embodied Affectivity states that part of the emotional perception is created as an internal process between the concepts of *bodily resonance* and *body feedback*. Research indicates that certain bodily resonance will impact the emotions perceived by the subject (Cuddy et al, 2012). Riskind (1984) found that participants who sat in a slumped position would remember more negative life events than participants who sat upright. This exemplifies that certain body utilisations will, in turn, affect perceived emotions.



**Figure 1: Embodied Affectivity theory from Fuchs and Koch (2014)**

For our study, the theory of Embodied Affectivity provides a framework for analysing why some facilitators exhibited different levels of confidence in using their bodies as resources compared to other facilitators.

### 3. Case and Methods

An explorative qualitative approach was chosen, and a single-case study was adopted. In accordance with Stake (1995), we aimed to develop a comprehensive and context-dependent understanding of the embodied affectivity of being a facilitator of movement-based design methods. Drawing from the work of Allen-Collinson (2009), our work adopts a phenomenological approach, providing both theoretical and methodological insights into the lived experiences of the facilitators.

#### 1.1 Bright Over Night Movement 2022

Bright over Night Movement (BoNM) is a collaboration between a Danish high school, the municipality of the high school, and the local university. The high school aims to incorporate design thinking in Physical Education (PE), and the municipality brings authentic cases for the students to generate solutions during a two-day movement-based sports innovation camp.

This year's cases focused on designing a 20-minute activity for 1) children in kindergarten, 2) eighth-grade middle school students, and 3) seniors in an activity centre. Three classes, 80 K-12 students, were participating and designed for one of the cases. 10 facilitators planned and facilitated the design process: Four master students from the local university and six PE teachers. As sketched out in the playbook, Table 1, the design model of Liedtka and Ogilvie (2011), with four guiding questions, What Is, What If, What Wows, and What Works, provided the framework for the design process, and movement-based design methods from the MeCaMInD card selection were utilised (cf. Elbæk et al, 2023b). The high school students worked in teams of 4-5 members.

#### 3.1 Data Generation

Thorpe and Olive (2016) argue how observations of the activity in focus may serve as empirical data for understanding the context and identifying key themes. During BoNM22, observations were conducted to record facilitator behaviour, understand the context, and identify key themes in the facilitation process. Written consent to conduct observations and use the information in this study was collected from all participants and facilitators.

**Table 2: A summary of the facilitators' gender, age, occupation, and level of design facilitation expertise.**

Informant	Gender	Age	Occupation	Facilitation/teaching expertise
Ida	Female	26	MS, Sports and Health	Novice
Sigrid	Female	26	MS, Sports and Health	Novice
Catherine	Female	31	Physiotherapist, MS, Sports and Health	Novice
Anna	Female	30	Nurse, MS, Sports and Health	Novice
Eva	Female	49	High school teacher, PE	Experienced
Alfred	Male	33	High school teacher, PE and social studies	Experienced
Henrik	Male	47	High school teacher, PE and mathematics	Experienced

Informed by phenomenology (Allen-Collinson, 2009) and a review of design facilitation, an observation guide was developed. Specific observation points related to the facilitation process (Context, Social Dynamics, Moderation, Enabling) and phenomenological focus points (the what, the how, sensory impressions, curiosity, epoché, and openness) were included. The observation guide was tested at a movement-based design workshop

with sports students from the local university's bachelor course, The Creative Acrobatic Body (Elbæk et al, 2022). Insights from using the observation guide were analysed, and the guide was modified accordingly. In accordance with Ravn (2021), this supported the observation guide's purpose as an iterative tool to adjust the intentionality, oscillating between detailed and broad views of overlapping but diverse aspects of facilitation. Seven of the ten facilitators volunteered to be interviewed within 1,5 weeks after BoNM22 (Table 2), serving to generate descriptions of the lived experiences from the facilitation process. An interview guide was created, drawing from the insights of a review of design facilitation literature and our observational data. The semi-structured interviews lasted 45-60 min and were carried out individually, except for one peer interview with Anna and Catherine.

**Table 1: A condensed presentation of the Bright over Night Movement 2022 playbook.**

Design stage	Activity	Purpose	Excursion	Facilitator Roles
<b>Thursday 08.12.2022</b>				
	Mood Setter 'Silly Walks'.	To playfully prepare the body for physical activity.	The participants walk across the room in a silly manner.	Role Model Animator.
What Is	Persona Mind mapping. Design Criteria.	Generating insights from the exploratory research of the What Is stage and use those to create design criteria that can be used to evaluate the activities generated.	<i>Persona</i> : Create fictional characters exemplifying certain attributes. <i>Mind mapping</i> : Organise the collected data to let hidden patterns and implications emerge. <i>Design Criteria</i> : Synthesise important insights and patterns from What Is to a set of criteria.	Instructor Coach.
What If	Mood setter 'Don't do what I do'.  Movement-based design method 'Daily Movement' 'Explore Movement'.	Performing a large variety of different movements.  Exploring movement possibilities and generate movement ideas for further work development.	<i>Don't do what I do</i> : One does a routine movement, another approaches and does a different movement. <i>Daily Movement</i> : Do everyday movements related to the context. Act out the movement in specific scenarios and repeat with variations such as speed, scale, direction etc. <i>Explore Movement</i> : Play with props inspired by Movement-Modifiers.	Role Model Animator.
What If	Concept development.	Assembling innovative movement elements into a coherent activity that can be tested.	Organise movement outputs into coherent themes, forming concrete movement activities.	Coach.
What If	Movement-based design method 'Mockups for Movement Design'	Exploring and gaining experience and understanding of the prototype activity.	Build a mockup for the activity using the necessary materials and tangible objects and explore the potential of the activity.	Coach Role Model.
What Wows	Testing movement activity on peer students.	Identifying the make-or-break elements of the movement activity.	One group at the time. 2 min presentation + 20 min test of activity + 8 min feedback and discussion with peers.	Coach.
<b>Friday 09.12.2022</b>				
	Mood Setter 'Clap cross'.	Icebreaker to engage with a partner.	Pairs must continuously switch to clap as quickly as possible.	Role Model Animator.
What If/ What Wows	Adjusting movement activity.	Implementing learning points from test session.	Improve identified problematic areas and keep elements that work well.	Game Master Coach.
What Works	Test activity on the target group.	Let the target group experience and try the activity at the target location (Kindergarten, Public school, Senior activity centre).	One group at a time. 2 min presentation + 20 min test of activity + 8 min feedback and discussion with target group.	Game Master.
What Works	Poster session.	Pitching solutions to local health experts, politicians, and municipality professionals.	Three rounds for each group doing 5 min pitch + 10 min discussion.	Game Master.

The facilitator was asked to focus his/her descriptions on their own experiences and answer the questions with as many concrete examples as possible. Based on Høffding and Martiny (2016), this performed the phenomenological reduction. We adopted the role of active listeners, letting the facilitators' experiences direct the interview.

### 3.2 Analysis

The interviews were recorded and then transcribed verbatim for accuracy. The empirical data from observations and interviews were coded according to the terms 'emic' and 'etic' in a heuristic and iterative process described by Ravn (2021). Emic accounts, as understood in our study, are rooted in the cultural or subcultural context of the facilitators (Ravn, 2021). We were aiming for indigenous themes and meanings of the facilitators to understand and analyse according to the facilitators' subjective descriptions, getting an 'inside' perspective of their affective state. For the emic coding, we conducted a meticulous 'line-by-line' reading as van Manen (1990) suggested and organised the notes into themes that emerged from the facilitators' experiences.

Subsequently, we focused on etic accounts: reflecting theoretical ideas and taking on an 'outsider' perspective (Ravn, 2021). Informed by Fuchs and Kock (2014), we categorised the data into themes about the facilitators' affections, emotions, and bodily expressions during facilitation, aiming to gain deeper insights into how and why these experiences occurred.

As informed by Boeije (2002), the analysis also involved a comparative element. We compared interviews within the same group (e.g. novice versus novice) and interviews from different groups (novice versus experienced). When analysing the data, we looked for commonalities and differences in the facilitators' behaviour, reasons, attitudes, perspectives, and affections.

We condensed the interview and observation data into quotes, creating coherent, meaningful citations.

## 4. Findings

Analysing the interviews revealed how the facilitators emphasised affective intentionality towards the facilitator role and responsibilities, as being a facilitator and doing well was essential to them. They described how they focused on meeting the participants' needs and ensuring all groups delivered a valuable activity for the target group. When describing their roles and responsibilities, the experienced facilitators appeared notably objective, focusing strongly on the facilitation tasks and working towards solving the given case. Contrary, the novice facilitators were highly focused on the expectations associated with being a facilitator and the aim to do well. The experienced variances in the environment's affective affordance resulted in different emotional reactions. As an experienced facilitator, we observed Henrik as very confident. He explained, "I facilitated more than half the camp, so I feel confident facilitating the entire camp next time if necessary." In contrast, the novice facilitators appeared to be significantly impacted by feelings of pressure, high expectations, and low confidence. Catherine states: "I felt I was judged as some kind of "expert", but I did not feel like an expert at all".

Confidence level may be regarded as part of the facilitator's emotional response when assuming their role. Interestingly, the facilitation behaviour was based on the facilitator's affective state in the given situation, not only on the experience level. This we elaborate on below.

### 4.1 Handling Frustrations

As a design facilitator, you lead into the unknown. As Alfred states: "You must steer the process towards something – but you do not know what this 'something' is." Such uncertainty requires confidence for the facilitator to trust the process and planned activities and be prepared for the unexpected.

The facilitators described how they regularly experienced frustration among the participants and their need for help during the design process. At one point, a group decided to abandon their ideas, deeming them unworthy of presentation, which left them in a passive and emotional state. We observed novice facilitator Sigrid trying things like changing the location, asking questions, and encouraging the "yes-and" principle. However, as this did not work as intended, she described, during the interview, how her confidence level dropped, leading her to an affective state of frustration: "I did not know what to do. Some of me wanted to take control, telling them which idea to use, but I knew that was the wrong thing to do as a facilitator." Ultimately, she asked Alfred, an experienced facilitator, to take over.

As such, the facilitator's emotions imply embodied action tendencies, moving away from or towards the frustrated participants. When Sigrid starts to doubt herself, she steps away from the situation, removing herself from the unpleasant feelings.

### 4.2 Courage to Challenge Bodily Involvement

Facilitating movement-based design activities inherently places the body at the forefront of the design process. However, during the observations, we saw a clear difference in how the facilitators engaged their bodies.

Interestingly, this was not dependent on the facilitator’s level of expertise. Instead, all facilitators emphasised courage as a critical factor for how to use the body. Ida and Anna limited their bodily involvement to supporting communication through gestures. Contrary, the other facilitators (both novices and experienced) engaged their bodies more, playing along during the activities and undertaking the roles of Role Model and Animator to challenge and support creativity. Anna and Catherine elaborate:

*Anna: “It [involving one’s body] requires that you, as a facilitator, are not scared, that you dare to use your body and act out. Just like the participants.”*

*Catherine: “Well, I do not have a problem looking and acting silly, so if I struggled to get the participants to crawl, I just started to crawl around on the floor to let them know that was the meaning of the Modifier...”*

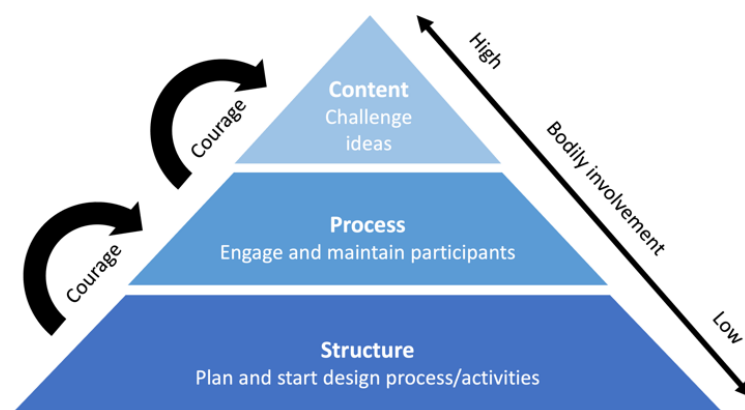
*Anna: “Yes. But I think it is very difficult for me if I am the only one looking silly. Then I fear looking silly, and I do not go there.”*

## 5. Discussion

### 5.1 Stages of Movement Facilitation

Based on our findings, we suggest three stages of movement facilitation (Figure 2). The first stage of facilitation focuses on the structure of the design process, planning and instructing the design activities. In the second stage, the facilitator also focuses on the process and how to keep the participants engaged. In the third stage, the facilitator is focused on the content, trying to challenge and tweak the participants' ideas. Each stage requires different levels of bodily involvement. Focusing on structure, the facilitator mainly stands ‘outside’ and controls the design process and activities. Informed by Reidsma et al (2022), this stage’s facilitation behaviour is closely related to the role of the Game Master and Instructor. The Game Master plans and prepares the activities and oversees the design process, whereas the Instructor focuses on starting, explaining, and executing each activity. In both roles, the facilitator adopts a third-person perspective, orchestrating the process from the outside, observing, and letting the participants do the playing (Reidsma et al, 2022). However, facilitating at the process stage requires a more profound level of bodily involvement from the facilitator. This stage implies close engagement with the participants, such as playing along in the design activity, responding energetically, or facilitating group discussions. The process-focused stage can be closely related to the role of the Coach and Role Model (Reidsma et al, 2022).

Deeper bodily engagement is required in the content-focused facilitation stage. In this stage, the facilitator must play along in the design activity to encourage and support movement inquiry and ideas, helping the participants to improve performance and achieve a valuable design outcome. This behaviour is closely related to the Animator in which the facilitator mainly takes on 1<sup>st</sup>- and 2<sup>nd</sup>-person perspectives, starting from full active involvement and losing themselves in the activity (Reidsma et al, 2022; Börghall, 2019). Also, the Coach can be associated with this stage as the Coach helps people identify interesting ideas that emerged and can use the body to “show by doing” to nudge and steer the group in better directions (Reidsma et al, 2022).



**Figure 2: Illustration of the three stages of facilitation. Reaching the upper stages require a high bodily involvement which are closely linked to the facilitator’s level of confident which is determined by the courage to use one’s body as a facilitation ressource**

Research into facilitation indicates that the level of an individual's design expertise impacts their application of specific strategies to problem situations (Mosely, Wright, and Wrigley, 2018; Luck, 2007). Our analysis indicates that the experience level influences which facilitation stage the facilitator finds themselves at. We also saw how the facilitator's emotions, like the level of confidence, highly affect the facilitator's behaviour and that courage is decisive for the facilitator's bodily involvement. Having the bravery to actively involve one's own body in the facilitation process – risking looking silly – does not inherently correspond to being an experienced facilitator. Novice facilitators Sigrid and Catherine had the courage to involve their bodies in the facilitation process. They used this as a resource for a higher bodily involvement stepping into the facilitation stages focused on the process and content, undertaking the roles of Coach, Role Model, and Animator. As such, understanding the facilitation process solely by focusing on facilitation expertise expressed through facilitation strategies may be too narrow. Consequently, we should also focus on the internal and emotional aspects of the facilitator, as emotions are not only felt from the inside but also displayed in expression and behaviour (Fuchs and Kock, 2014), potentially hampering the facilitation process.

In a movement-based design context, the facilitator's confidence level may have an even more significant influence on the movement-based design activities and add a layer of complexity to the facilitation process. Facilitating movement-based design methods requires additional resources from the facilitator, such as body experience and awareness (Reidsma et al, 2022). For that reason, experienced designers of cognitive-based design methods may not be expected a facilitation behaviour with high bodily involvement, undertaking the role of, e.g. Animator, if they do not have a movement background or do not feel confident using their bodies. However, this warrants further investigation. As there is a growing interest entailing the use of movement as part of the design process (Loke and Robertson, 2011; Elbæk et al, 2022), these insights are essential for future generations of movement-based design facilitators since the way facilitation is enacted depends on the individual facilitator (Dahl and Svanæs, 2020; Mosely, Markauskaite and Wrigley, 2021). Having the courage to apply high bodily involvement, thereby being able to navigate all three stages of facilitation, provides the facilitator with more actions to choose from when guiding and supporting participants. Ultimately, this will significantly impact the activities, participation, processes and design outcome (Dahl and Sharma, 2022; Reidsma et al, 2022; Wróbel, Cash and Lomberg, 2020).

## **1.2 Limitations**

Throughout this study, we focused on what we believed would provide the most novel insights from the facilitator's perspective. Therefore, we excluded participants of BoNM22 as a source of empirical data to focus on the often-overlooked aspect of the facilitator's confidence, courage, and impact on bodily involvement. Secondly, the setting of BoNM22 provides some contextual limitations, such as the number of days over which the data was collected (2) and the number of facilitators who participated in the design facilitation (10), out of which seven were interviewed. Given these constraints, we regard this study as a preliminary investigation which yielded significant, albeit restricted, insights. Consequently, further studies which span more significant periods involve more participants and compare results from different design facilitations are recommended.

## **5.2 Recommendations for Novice Facilitators**

Our findings reveal the pivotal role the facilitator's level of bodily confidence plays when integrating the body in a design facilitation context. As such, seeking actions that may assist is advised before facilitation. We advocate for comprehensive preparation, which is crucial for fostering a reflective facilitation process (Dahl and Sharma, 2020; Mosely, Markauskaite, and Wrigley, 2021). Utilising our model of the three facilitation stages (Figure 2), future facilitators can prepare strategies for each stage, thus strengthening one's action possibilities and contributing to a successful session.

- Since Stage 1 emphasises the design process's structure and planning, the facilitator could benefit from, for example, drafting a comprehensive playbook, strategising on organising the physical space, preparing requisite materials, and design tools like design cards and artefacts (Mosely et al, 2021; Elbæk et al, 2023b).
- When preparing for Stage 2 and how to keep the participants engaged in the design process, the facilitator must prepare strategies for providing guidance and support to the participants. Preparing extra energisers, getting familiar with the chosen design methods, and encouragement and feedback strategies can be prepared by the facilitator in advance and serve as focus points for reflection (Reidsma et al, 2022; Slovak et al, 2017).
- Preparing how to challenge the content in Stage 3 may include the employment of Movement-Modifiers (Elbæk et al, 2023a), cultivating a movement mindset, and participating in warm-up

exercises, which can foster a safe and friendly environment (Reidsma et al, 2022) to support both participants and the facilitator.

- Considering inherent uncertainty, the facilitator is advised to prepare backup plans for each activity. Should the need arise, these must be utilised – a crucial part of the facilitator’s responsibility.

## 6. Conclusion

The facilitation process is intricate, going well beyond performing strictly by the book due to inherent uncertainty within the design process. Facilitation of movement-first design sessions is often highly influenced by the facilitator's level of movement expertise as well as the facilitator's affective state, which environmental factors, such as the context of movement-based activities, can impact. Being the leader of the unknown, the facilitator must shoulder the responsibilities inherent in their role. Consequently, novice exergame design facilitators should focus on bolstering their confidence, mustering the courage to choose among Structure, Process, and Content stages, and utilising their bodies as resources. This strategic approach will enable the emergence of movement dialogue and ideas within participatory design contexts and potentially transform how we approach, understand, and innovate the facilitation of movement-based design.

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