



Article

Designing Positive Experiences in Creative Workshops at Work Using a Warm UP Set Based on Psychological Needs

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Abstract: With working from home becoming more normalized, creative workshops are increasingly taking place in digital and hybrid form. However, participants are usually less engaged and motivated in these contexts. This is due to less physical presence and activity, complex technical systems and a lack of social interaction and communication. This leaves the facilitators with the challenge that these creative workshops are sometimes not experienced as positively, and therefore participants are not able to work as creatively. An important approach that can strengthen these factors in workshops is the use of warm-ups as a type of playful intervention. Although some research on and compilations of warm-ups exist and may help the situation, they do not yet provide direction on how to specifically promote a positive experience in creative workshops with warm-ups. An important link here is user experience research, which assumes that positive experiences are due to the fulfilment of psychological needs. Based on research about warm-ups and playful interventions in general, we derive categories for classifying warm-ups that can potentially address several specific psychological needs. Then, 28 warm-ups are selected according to their applicability in analogue, digital and hybrid application spaces. Moreover, those 28 warm-ups are assigned to the two most relevant classifying categories. The results are mapped in the form of a ready-to-use Warm UP Set, which is then evaluated for applicability from the facilitators' perspective and regarding the influence on the emotional experience of the participants. The evaluation shows that the developed Warm UP Set with its categories seems to be suitable to support facilitators in systematically inducing positive experiences in participants in creative workshops.

Keywords: warm-ups; creative workshops; playful interventions; energizer; user experience; positive experience; employee experience; psychological needs



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1. Introduction

“A motivated, productive and flourishing workforce is vital to organizational success” [1] (p. 1). This does not only apply in theory but is a highly important topic to companies, showing the growing interest in leadership and employee training to achieve more autonomously motivated employees [1]. Especially in creative workshops, such motivation can be key to an optimal workflow. A creative workshop is understood here as an analogue, digital or mixed form of an event in which a small group of people works together for a limited, compact period within the framework of a joint idea generation process. Workshops are a great possibility to support “creative thinking, discussion, debate, information sharing, problem solving and decision making” [2] (p. 4). More importantly, they also offer a space to satisfy employees' socio-emotional requirements, which in turn leads to more productive outcomes [2]. In other words, if the people participating experience this collaboration as positive, they are more creative and motivated to participate in idea generation. These findings, however, only apply if the workshop is constructed well. If not, a poor workshop design “can result in negative employee dispositions that lower employee perceptions of their work and well-being as well as negatively impacting organizations bottom line” [2] (p. 4). Furthermore, designing for a positive experience of

online workshops seems even harder to achieve. Participants in online workshops state that they feel less motivated to engage, with many losing track of content or starting to work on other, nonrelated tasks during the call. Even among those willing to listen attentively, many complain of feeling “mentally and physically exhausted by video conferencing” [2] (p. 2).

Now that digital workshops are becoming more and more popular, the question of how to ensure that participants perceive these workshops as positive has arisen. More specifically, there is the question of how positive experiences for the participants of creative workshops can be systematically fostered. One approach can be found in user experience research, according to which positive experiences related to interactive products or services are created through satisfying basic psychological needs [3,4]. No agreed typology of psychological needs exists in user experience research [4–10]. Nevertheless, what the authors all agree on is that basic psychological needs can be addressed to systematically increase well-being and create positive experiences. Thus, transferring the findings from user experience research into the design of positive experience in creative workshops seems promising.

A relevant methodological approach to promote positive emotional experiences in creative workshops and thus potentially fulfil psychological needs of the participants independent of the content of work seems to be the use of warm-ups. Warm-ups are small, time-limited games in the context of creative workshops and can be assigned to the group of playful interventions. Playful interventions are used in diverse processes, e.g., to promote creativity [11], energy [12] or group cohesion. There are already existing collections of playful interventions as well as scientific research, e.g., on the use of improvisation techniques. However, although there has been research on measures to support basic psychological needs in work contexts, the “intervention literature is still in its infancy” [1] (p. 4). More specifically, a connection between warm-ups and need satisfaction in creative workshops has not yet been found. There is a lack of a systematized approach, selection aids and structured processing of existing playful interventions, which would allow facilitators of creative workshops to systematically support positive experiences of the participants by addressing specific needs.

Thus, the contribution of this paper consists of:

- A review of existing research, literature on playful interventions and compilations of warm-ups which possibly foster positive experiences while unconsciously addressing psychological needs of the participants, with a focus on the context of work.
- Extraction of relevant psychological needs that can be met through playful interventions, such as warm-ups, based on the review.
- Establishing categories based on the extracted psychological needs and assigning selected warm-ups for use in analogue, digital and hybrid (digital and analogue) workshop settings so that facilitators can use the warm-ups in a needs-based manner and potentially induce a positive experience among workshop participants.
- Preparation of the findings in the form of an easy-to-use Warm UP Set for application in creative workshops
- Formative evaluation of the Warm UP Set and selected Warm UPs in terms of applicability, feasibility and emotional experience.
- Discussion of the results, challenges and opportunities of Warm UPs in work contexts as well as further steps

2. State of the Art

In the following section we present an overview of research on warm-ups and playful interventions in a broader sense, which might foster positive experiences while unconsciously addressing psychological needs. To name possible psychological needs, the need typology of [9] is used, as it combines the psychological needs identified by [5,6] and includes the basic psychological need of physical health, which becomes increasingly more important in the context of virtual workshops (see [2]).

With the growing number of digital events in the context of work, the term “warm-up” is becoming more and more familiar. For example, the use of warm-ups increases participation in discussion forums of digital meetings and is an indicator of high-quality work results [13]. In addition, warm-ups help the participants in a digital workshop to “switch to an open and creative mindset” [14] (p. 100) and help to create an active atmosphere within group work [15]. In other words, one could say that warm-ups stimulate people and foster the fulfilment of the psychological needs of *relatedness, security and stimulation*. Especially for creative teamwork in the digital space, warm-ups have therefore gained significant popularity. Many online guides for creative team processes (e.g., [16–21]) recommend the use of playful interventions already. Labels such as energizer, onboarding or activation games can be seen as synonyms for the term warm-up. Additionally, there are numerous examples of warm-up sets on the internet. A few of these collections already support the facilitators in selecting specific warm-ups for different purposes (e.g., [22,23]). However, the question of how certain warm-ups specifically affect certain psychological needs of the participants in creative workshops has not been approached yet.

Nevertheless, some explorative approaches on warm-ups in work contexts already exist. One example illustrates that one’s own creative self-confidence can be promoted through abstract tasks. In this case, students were regularly sent to creativity training sessions over a period of six weeks which comprised a total of 39 h but essentially consisted of many small exercises like the warm-ups described in this paper. After successfully completing the training units, the participants clearly showed a more pronounced creative self-efficacy and had more positive experiences during their work over the course of the following day [24]. Thus, it can be concluded that confidence and trust in one’s own creative competencies can have a significant impact on the behaviour of employees and positively influence their day. In other words, the participants felt enhanced in their psychological need for *competence*. Furthermore, research on psychological security suggests that playful interventions in work contexts help participants to “show courage to take risks and to playfully fail with joy” [25]. The participants *feel safe to take risks and fail*. This makes them feel able to express their thoughts and opinions openly and honestly—and thus contributes not only to a pleasant work environment, but also to high-quality work results [25]. Especially in digital teams, in which the team members barely know or are strangers to each other and in which hardly any incidental conversations occur, warm-ups can unfold their potential, as they create a feeling of camaraderie and emotional support through fostering trust within the team [13]. In other words, they strengthen the *relatedness* and the feeling of (*emotional*) *security*.

Another study showed that participants were significantly more satisfied and joyful immediately after a physical intervention in everyday work, and emotions such as sadness and anger faded [26]. This shows that their well-being in general increased through addressing their need for *physical well-being*. Particularly in a digital environment, where the physical change of space between two appointments is missing, the physical workplace is often ergonomically suboptimal, and problems such as Zoom fatigue [2] occur; this psychological need might become increasingly relevant in the context of a digital working day.

If one continues to abstract the concept of warm-ups to playful interventions and includes the synonyms mentioned in the research, it becomes clear that playful interventions have also been used and scientifically evaluated in other areas apart from creative team processes at work. It is therefore worthwhile to “think outside the box”. Here, exercises from improvisational theatre are receiving significant attention. Some studies have already tried to use the basics of improvisational theatre to support pupils in motivated and sustainable learning. Using roleplay to put oneself in other perspectives, to portray feelings and to solve tasks not by verbal or written expressions strengthens psychological security and, in turn, teamwork, agility and creativity [11,27]. The participants felt more *related to each other, competent in communicating and stimulated* to be more creative. In addition, participants in a study showed higher trust as well as increased openness and easier

agreement with their team members [28]. Key to these positive effects was shown to be the impact of improvisation exercises on one's own feeling of (psychological) *security* [27]. As experimental groups from the field of mental illness showed, regular training with the basics of improvisational theatre increased one's own self-acceptance, personal growth and psychological well-being [29,30].

Similar effects occurred in school contexts with the use of so-called icebreakers. Here, studies show that small game interventions at the beginning of a lesson can reduce children's and adults' fear of speaking freely later during the lesson. They help to make learning more fun and create a warm and positive environment [31]. This facilitates communication among learners [32]. It was also shown in digital learning spaces that the test group with a playful intervention participated more in discussions and thus automatically generated the most active session compared to the other groups. It is also assumed that playful interventions promote more qualitatively good working results [13], although other findings contradict this hypothesis [33]. However, the studies agree that icebreakers help to promote communication and thus trust, especially in a newly formed team. This trust, or *emotional security*, is important to be able to openly communicate one's own opinions and new, creative approaches.

In summary, it can be stated that various collections of warm-ups, and in a broader sense playful interventions, exist. Playful interventions have also been evaluated regarding their effectiveness and their influence on the creative and emotional self-confidence of the participants in creative workshops. Although they were not systematically studied in terms of meeting psychological needs, we were able to derive relevant psychological needs based on the study results, which can potentially be met through different playful interventions (needs defined by [9]):

- *Relatedness*: feeling close to the ones who are important to oneself
- *Security*: needing structure, the absence of danger and independence from outer circumstances
- *Stimulation*: curiosity and exploring new things
- *Competence*: feeling able to master challenges
- *Physical Well-being*: supporting one's own well-being

This leads to a significant potential in selecting small, time-limited playful interventions—the so-called warm-ups—and reorganizing them to support the satisfaction of basic psychological needs during creative workshops systematically. In other words, there is a requirement for a systematic approach, selection aids and a structured processing of existing playful interventions for facilitators, which supports them in selecting specific warm-ups to address certain psychological needs of the participants and thus systematically promote the positive experience of creative workshops for the participants.

3. Warm UP Set

The Warm UP Set (see Supplementary Materials) presented in the following sections aims to support facilitators with different professional backgrounds regarding creative workshops to systematically select and facilitate Warm UPs that can potentially induce a positive experience among workshop participants based on the fulfilment of their psychological needs.

3.1. Method

Based on the literature review, it can be stated that the application of playful interventions has the potential to induce positive experiences in the participating individuals. Unconsciously, the interventions analysed generally seem to address the psychological needs for relatedness, security, stimulation, competence and physical well-being of the participants. Warm-ups, defined as small, time-limited interventions in meetings or workshops to increase fun and productivity, can be understood as a part of these playful interventions. Therefore, the findings regarding playful interventions can be transferred to warm-ups.

Although there already are sets containing warm-ups for work environments, a systematic mapping of individual warm-ups to specific psychological needs does not yet exist.

Therefore, diverse compilations of warm-ups were first reviewed and brought together. For this, collections of warm-ups [16–23,34,35] and insights from improvisational theatre instructors [36–38] and design thinking coaches [39] were considered. The criteria for the selection of the warm-ups were that they are applicable in analogue, digital or hybrid workshop contexts, have a maximum time requirement of 15 min and are designed for creative project teams, i.e., several participants from 2–10 people. In addition, when merging the warm-ups, those with the same content but different designations were combined into one generic term. Subsequently, the resulting 28 warm-ups were each assigned psychological needs out of the extracted need list from the literature review that they could potentially address in the participating people when applied. Here it was found that a warm-up cannot be uniquely assigned to one psychological need, but that several psychological needs are always addressed simultaneously. It was found that it is almost always a compilation of the same needs. Due to this fact and because of the abstract concept of psychological needs in the context of creative work not being directly accessible to most target groups, we have grouped the identified clusters of needs into categories. The names of the categories do not describe the cause, i.e., the respective needs for the potentially induced positive experience, but the practical output—what can be achieved by applying the warm-up from this category. In the overview of the categories, however, the assignments to psychological needs can be found. Finally, each warm-up was assigned to the two primarily addressed categories so that the facilitating people can directly select, based on the current workshop situation, which aspects they need and want to promote with the use of a warm-up.

3.2. Results

The resulting Warm UP Set is intended to support facilitators of analogue, digital or hybrid creative workshops in using the Warm UPs systematically to create a positive experience for workshop participants. The capitalization of the term “UP” is intended to indicate the human-centred goal of the Warm UP Set itself. The origin of “UP” lies in the gaming industry, where it stands for a personal life within the framework of a game. This is exactly what the Warm UP Set aims to achieve—to bring people and their needs to the forefront of creative meetings. The Warm UP Set contains:

- An instruction and overview page, where four categories based on psychological needs for the classification and selection of the Warm UPs as well as the fields of application and application instructions are described (see Supplementary Materials). To ensure clarity and ease of access for all facilitators with different professional backgrounds, the specific psychological needs underlying the categories are addressed in the description of each category but not put into focus.
- A selection of 28 Warm UPs, each of which is assigned to two of the four categories and the corresponding fields of application (see Supplementary Materials).

3.2.1. Categories

The Warm UP Set contains four categories aiming to help workshop facilitators to quickly identify which Warm UP might be useful in a specific workshop setting and atmosphere to meet the needs of the audience (see Table 1). Every category is based on the psychological needs extracted by the literature review, which might be addressed by the individual Warm UPs. The needs are derived from the typology of [9] and transferred into the context of creative workshops in analogue, digital and hybrid settings. As psychological needs can be described through several aspects, a supplementary definition of how the needs should be understood in the given context is provided (see Table 1).

Table 1. Translation of identified needs into categories for practical use.

Psychological Needs	Categories Warm UP Set	
	Designation	Description
<i>Stimulation</i> in the sense of inspiration and <i>Competence</i> in terms of belief in one's own ideas (creative self-confidence [40,41]).	Mindset	Warm UPs in this category serve to inspire the participating people, which is an essential basis for creative idea generation. Furthermore, the participants should be supported in building up creative self-confidence, i.e., belief in their own ideas. In this way, they can express these ideas openly in the creative workshop. For this, a positive error culture is relevant on the one hand and a playful approach on the other.
<i>Stimulation</i> in the sense of waking up the mind and <i>physical well-being</i> in the sense of mental and physical activation.	Activation	These Warm UPs help the participants to be mentally present, attentive/concentrated and more satisfied with the help of mental and physical activation. The occurrence of monotony (such as Zoom fatigue) and physical fatigue are prevented. Furthermore, these Warm UPs ideally ensure that the participating people are not (pre-)burdened by other cognitive tasks from, e.g., previous meetings.
<i>Relatedness</i> in the sense of building a sense of "we" and <i>security</i> in communicating (emotional experience).	Being a Team	With the help of Warm UPs in this category, the participants are supported in feeling connected to each other, i.e., in building up a sense of "we". The Warm UPs support getting-to-know activities for participants who do not know each other as well as impulses for a deeper exchange in participants who have already worked together. The building of the "we-feeling" goes hand in hand with the increasing feeling of emotional self-confidence [42] of the participating people. The more the group feels connected to each other, exchanges information privately and finds a common basis for communication, the greater the willingness of the participants to share their emotional experiences, to deal openly with conflicts and to resolve them constructively.
<i>Competence</i> in relation to the handling of analogue and digital tools used.	Tool-competence	The Warm UPs in this category introduce important analogue or digital tools for the creative workshop in a playful way and enable the participants to handle them competently. The use of these Warm UPs should always take place directly before the use of the corresponding tools, i.e., at various points in the workshop.

3.2.2. Fields of Application, Card Layout and Application Instructions

Fields of Application

Due to current developments, creative workshops are conducted in analogue, digital as well as hybrid contexts. Because these contexts are quite different, the cards are each marked with "analogue" for analogue settings or "digital" for digital spaces. Some of the Warm UPs can be used in "analogue" as well as in "digital" contexts—and thus in hybrid application spaces—and are therefore labelled "digitalANALOGUE".

The Warm UPs of the Warm UP Set are designed for a group of creative workshops with 2 to approx. 10 participants. They are suitable both for close colleagues and for teams working together for the first time. In order to ensure the practical applicability of the Warm UPs in everyday working life, the required time window for a Warm UP on average is about 3 to 10 min depending on the Warm UP chosen and the number of participants. This was found to be suitable for a workshop duration of 60 to 90 min. In the case of longer workshops, Warm UPs can be used at several points (e.g., after a break or when the facilitator notices that motivation is waning). For the digital Warm UPs to work smoothly, a stable internet connection as well as a working camera and microphone should be present for every participant.

Card Layout

The success of a Warm UP is always directly influenced by the individual application context and thus, must be chosen according to that. Thus, it is very important for the facilitator to be able to filter the Warm UPs effectively with respect to the categories, the field of application, the group size and the possible time windows within the creative workshop. The Warm UP Cards are designed accordingly.

An example of a Warm UP Card layout is shown in Figures 1 and 2. Displayed is the printed version of the Warm UP Card. The card is divided into a front and back side (see Figures 1 and 2).



Figure 1. Card layout, front side.

The recommended field of application (digital, analogue or digitalANALOGUE) can be found below the title of the Warm UP. The corresponding categories are marked in colour and written at the edges of the card to make quick searching by the facilitator(s) possible. In addition, the recommended group size for the Warm UP can be found at the top, and the required time frame for the Warm UP is displayed on the right. These two parameters are positioned in a bookmark-like manner so that sorting can also be performed solely based on these factors. Finally, the card contains instructions and supporting tips on how to conduct the respective Warm UP (“How to!”; “Good to know”), as well as the overall goal of the Warm UP, reduced to one sentence. As some Warm UPs are inspired by existing playful interventions, the sources that served as inspiration are indicated at the bottom of each Warm UP card. The full reference to the indicated source can be found on the last card of the Warm UP Set.

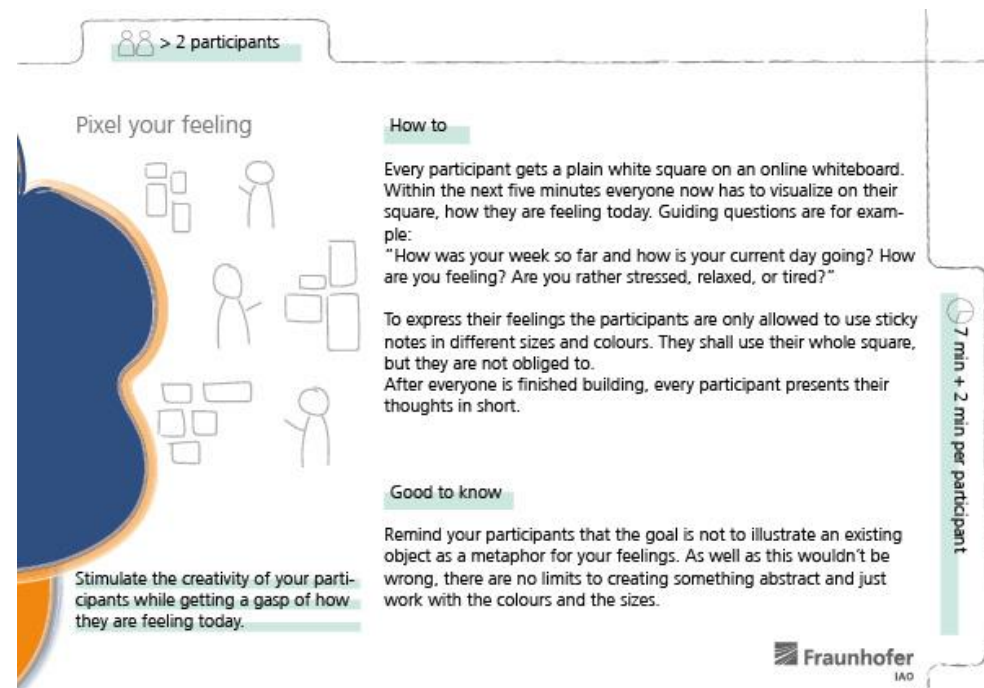


Figure 2. Card layout, back side.

Application Instructions for the Facilitators of the Creative Workshops

The Warm UP Set was initially developed for the context of creative workshops in everyday work in order to facilitate a positive user experience for the participants. For this, the Warm UP Set contains four categories based on psychological needs which support the facilitators in choosing the right Warm UP for the current situation and meeting the needs of the workshop group.

However, the respective Warm UPs are not limited to a specific target group or field of work, include the application in analogue, digital and hybrid settings, and are flexible regarding group size and needed time windows. Therefore, the final decision for a specific Warm UP always remains with the facilitator. The facilitator of the creative workshop holds the best overview of the context at hand and the target group of the intervention. The exact implementation of a Warm UP can and must be adapted so that it fits the target group and the facilitator feels comfortable with it. In order to support the facilitator, application instructions have been formulated (see Table 2), which are also part of the Warm UP Set.

The success of a Warm UP highly depends on how it is introduced and facilitated by the facilitator. First of all, it is important that the facilitator observes or masters basic principles of facilitation, e.g., good preparation beforehand, respect for the participants and active listening (cf. [43]). Second, the facilitator's mindset that a Warm UP is well used and works is relevant, as these beliefs are implicitly conveyed to the workshop participants through the activities and words and thus also influence the acceptance and success of the respective Warm UP (cf. [44]). Especially with hesitant participants, it is important that the facilitator introduces the Warm UP confidently and self-assuredly. New or insecure facilitators should try out Warm UPs in front of a forgiving audience and thus expand their skills. If participants are still sceptical or refuse to participate, it can help to explain the reasons for the built-in warm-up and thus put it in an understandable context.

Table 2. Application instructions for the Warm UP Set for the facilitators.

Instruction	Further Explanation
<i>Use your creativity</i>	The shown explanations on how to successfully use a Warm UP provided by us are only suggestions. Only you know what best fits best your workshop audience. Does your audience not like drawing at all? Use pictures to explain with sticky notes how to build something or movements to express what you want them to communicate.
<i>Your workshop, your stage!</i>	To use the full potential of your Warm UP and convince your whole audience to become engaged, good moderation is essential. Adjust the Warm UPs in a way you feel comfortable moderating or try new things in front of an easy, already engaged or forgiving audience.
<i>Do not just do, but explain</i>	Shortly explain the reason or goal you pursue by introducing a Warm UP into your meeting. This helps your audience to understand and openly engage in the activities.
<i>Time is what you make of it</i>	If you have a lot of participants in your creative workshop, divide them into groups and let them perform your Warm UP or discuss the conclusions drawn individually in small groups. This way, everybody gets to say something without you spending your whole workshop on the conduction of the Warm UP.
<i>Keep on being curious</i>	On the matter of Warm Ups, there are always new ways to improve an activity or a moderation. Stay curious, talk with other facilitators about your experiences and improve your workshops together.

4. Evaluation

4.1. Method

To obtain initial feedback on the impact of individual Warm UPs and the potential of the Warm UP Set itself, a two-step formative approach to evaluation was chosen. The two-step formative approach considered the participants' experience of the individual Warm UPs, their willingness to facilitate the Warm UPs themselves and their general feedback on the Warm UP Set. For this purpose, two semi-structured moderated focus groups were conducted using a video conferencing tool.

In both focus groups, the first step was to introduce the idea of the Warm UP Set and to conduct various Warm UPs with the participants. Immediately after the Warm UPs were conducted, the participants were allowed to evaluate them individually with the aid of a web-based questionnaire, with items addressing the following aspects (see Table 3):

- Change in personal feelings and feelings towards the other participants (items 1, 2 and 3);
- Willingness to use the respective Warm UPs themselves in a future workshop (item 4);
- Feedback and suggestions for improvement for the respective Warm UPs (item 4).

Table 3. Items for the individual web-based questionnaire.

Items	Response Format
1, How did you feel before today's Warm UPs?	Text
2. How did you feel after today's Warm UPs?	Text
3. What, if anything, has changed in yourself and/or how you feel about the other meeting participants and/or the whole group?	Text
4. Please answer per Warm UP: Can you imagine using this Warm UP yourself in your work? Yes or No? Please give reasons and make suggestions on how to adjust the Warm UPs if necessary.	Selection yes or no; text for reasons and suggestions

After the conduction and evaluation of the Warm UPs, the Warm UP Set itself was presented in detail, and the participants had 10 minutes to look at it by themselves. This was followed by a guided group discussion on potential uses and optimization possibilities of the Warm UP Set. Herein, the following aspects guided the discussion:

- Applicability and feasibility in creative workshops;
- Suggestions for improvement and hints regarding the application of the Warm UP Set

The participants of the first focus group (female: 4, male: 3; average age 31.1 years) had different experience levels in workshop facilitation and did not know each other beforehand. During this first focus group, the Warm UPs of “Association Walks” (Categories: Being a Team, Mindset), “Reflections” (Categories: Activation, Being a Team), “Bodyflow” (Categories: Activation, Mindset) and “Introductory Objects” (Categories: Activation, Being a Team) were conducted.

The participants in the second focus groups were all experienced workshop facilitators and knew each other beforehand (female: 2, male: 2; average age 43.8). Here, the Warm UPs “Bodyflow” (Categories: Activation, Mindset) and “Introductory Objects” (Categories: Activation, Being a Team) were carried out. For both focus groups, no Warm UP with the category Tool-competence was selected, as all participants were already familiar with the tools used. For a detailed description of the Warm Ups, see the Supplementary Materials.

4.2. Results

The Warm UP “Association Walks” was consistently perceived as positive by the participants of the first focus group. Interacting in breakout sessions consisting of two people maximized the activation of the participants. Additionally, through the free associations and emerging conversation impulses of the conversation partner, a guided dialogue and exchange could take place. This had a natural and loosening effect on the participants in the first focus group and brought them closer together as a group, as intended by the Warm UP (Categories: Being a Team, Mindset). Regarding the Warm UP “Reflections”, the participants in the first focus group noted that it was very easy to understand and use. At the same time, they found that it activated them, brought them closer to the other participants and thus gave them a positive experience (Categories: Activation, Being a Team). Overall, they found that both the “Association Walks” and the “Reflections” were suitable for “breaking the ice” with new groups. In order to become engaged in workshops with familiar colleagues, the participants in the first focus group liked the Warm UP “Introductory Objects” better because in their opinion one would learn more details and backgrounds here.

The participants in the second focus group also enjoyed the Warm UP “Introductory Objects”. They could all imagine using it themselves, as it is very easy to administer and can be applied to different questions. They also found that abstract content or answers, e.g., about their own mood, become concretely visible and communicable to themselves and to the group. They found that knowing more about each other or being able to communicate their feelings openly with the aid of the Warm UP made them feel more comfortable and connected to the group overall (Category: Being a Team). In addition, the participants had to stand up to look for a respective object in their real environments, i.e., they were physically activated. Where the other Warm UPs had more to do with the interaction in the group, the Warm UP “Bodyflow”, which represents a meditative introspection, led more to the screening of one’s own current mental and physical (activation) state. The participants in both focus groups noted that they saw great potential here for creative workshops in terms of mindfulness, arriving in the moment and awareness of one’s own body (refer to Categories: Activation, Mindset). At the same time, however, participants also saw the greatest challenges here in terms of its use in professional workshops. The body is often considered a private matter, and there could be negative associations if, for example, there were participants with a rather negative body image. In terms of use, the participants noted that in digital settings the camera should be switched off so that a private space is created.

In summary, participants in both focus groups found that they felt more connected and able to talk more openly about issues because of using the Warm UPs. For example, one participant found that he became more “sympathetic” to the other participants. Another participant mentioned that he now felt more connected to the group because everyone had shown something of themselves. In addition, participants felt more active overall

(physically), more alert, more relaxed, more focused and more present. In addition, it was highlighted that they felt more joyful. Participants found the Warm UPs “Association Walks”, “Reflections” and “Introductory Objects” generally applicable and feasible in creative workshops. Only in the case of the Warm UP “Bodyflow” did they point out that it must be moderated with great sensitivity or that further instructions for mindful moderation of the Warm UP should be given.

Regarding the question of whether the participants could imagine themselves facilitating the Warm UPs with the help of the Warm UP Set, all of them reacted very positively and could imagine it well. However, this was highly dependent on the individual Warm UP itself. The “Association Walks” would be moderated by all eight participants from the first focus group (see Figure 3), and the “Introductory Objects” by six of the eight participants from the first focus group. Regarding the “Reflections” and the “Bodyflow”, however, only four and five of the participants, respectively, of the first focus group could imagine moderating these. In the second focus group, the picture emerged that all four participants would moderate the “Introductory Objects”, and three out of the four would moderate the “Bodyflow” (see Figure 4)—however, under the condition that, for example, the camera is excluded, or a forgiving audience attends the Warm UP.

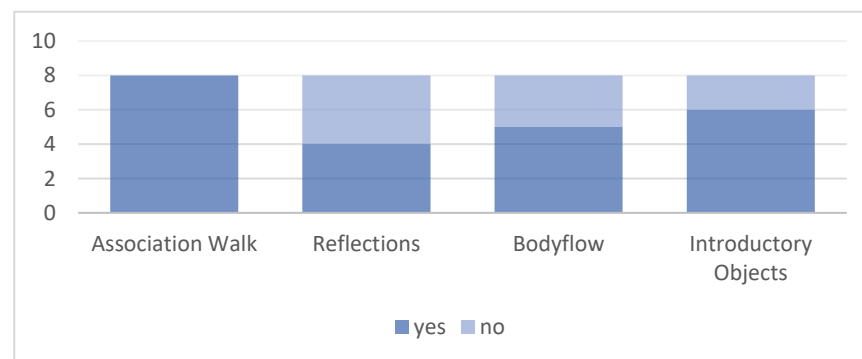


Figure 3. Focus Group 1—Item 4 “Can you imagine using the respective Warm UP yourself in your work? Yes or No?”.

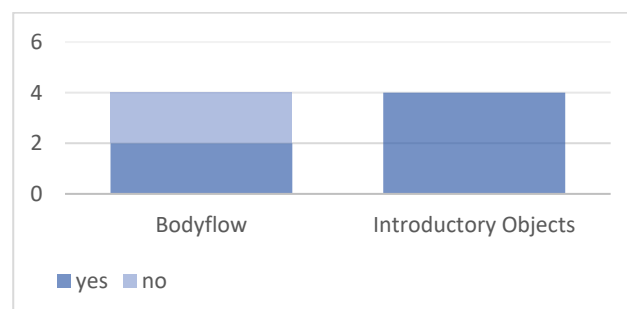


Figure 4. Focus Group 2—Item 4 “Can you imagine using the respective Warm UP yourself in your work? Yes or No?”.

All participants in the two focus groups found the categories of the Warm UP Set useful and thought that they hit the mark with regard to the frequent needs and wants of the participants in today’s creative workshops and the requirements of the various application environments. They found the categories helpful for initiating a positive experience in the group through the Warm UP. Moreover, they liked the design of the Warm UP cards and found it easy to pick a Warm UP in terms of categories, time requirements and number of people participating in the creative workshop. They noted that they would still like to see Warm UPs for larger groups, as well as guidance on how to make Warm UPs sustainable in a creative process. They also noted that they would like to see tips on how to deal with the situation when the people attending don’t participate in a Warm UP.

5. Discussion

In this paper we show a method to systematize existing warm-ups and make them effective for the purpose of generating a positive experience for the participants in creative workshops—the Warm UP Set. The starting point here was the psychological needs extracted from the literature research, which were then summarized into four easy-to-understand categories (Warm UP Set Categories: Mindset, Being a Team, Activation, Tool-Competence). These categories were then in turn assigned to selected Warm UPs that are suitable for virtual, analogue and hybrid application contexts. In this way, facilitators can select the appropriate Warm UP based on their current workshop situation, which helps them, for example, to activate the participants (Warm UP Set Category: Activation). This then satisfies the participants' psychological needs for stimulation or physical well-being, which according to user experience research can lead to a positive experience. The categories make sense for the practical use of the Warm UP Set, as facilitators can easily see and understand what results they can achieve with the help of the individual Warm UPs—e.g., activate the participants or simplify the use of tools. The satisfaction of psychological needs is interesting when it comes to the causes of positive experiences. Thus, user experience experts and other interested facilitators of creative workshops can also deal with the underlying psychological needs of the categories if needed. In addition to the Warm UP Set, further steps should be taken to make the theory around positive user experience available to everyone, as the satisfaction of basic psychological needs does not only contribute to a positive experience in creative workshops but to personal self-growth and general well-being in the long run [29]. A focus on positive experiences should therefore generally be established in work contexts. Although some psychological needs (relatedness, autonomy and competence) have already been transferred to and evaluated in work contexts, “research on user experience at work is still missing” [45] (p. 166). A first step in the right direction is the experience categories [45,46], which systematically record positive experiences at work. However, the systematic transfer back to psychological needs is still the subject of current research.

A first evaluation shows that the Warm UPs from the Warm UP Set are suitable to induce positive experiences in the participants in creative workshops. Furthermore, the participants felt more comfortable with each other after using the Warm UPs (Warm UP Set Category: Being a Team) and felt ready to communicate more openly. This indicates that their sense of psychological security increased, which is commonly referred to as a work atmosphere where people can express themselves and be themselves [47]. This in turn is an essential prerequisite for building creative and emotional self-confidence (Warm UP Set Category: Mindset)—that is, the categories of Being a Team and Mindset seem to be in place, and with them the underlying psychological needs for relatedness, security, competence and stimulation. The fulfilment of those needs has been shown to be important in finding novel ideas effectively and efficiently in a group, and thus also for a creative workshop. The individual Warm UPs were rated differently. In particular, the participants saw different application scenarios for different Warm UPs. Some Warm UPs were therefore more suitable for groups that do not yet know each other so well. Here, it was basically a matter of establishing a group feeling. In others, however, the participants said that they imagined the Warm UP being used more in familiar groups, where the aim was to reach deeper into previously explored topics. These thoughts should be taken into account for the further development of the Warm UP Set and considered in further iterations.

The most interesting finding was that the Warm UPs involving the body were the most controversial. Here, the participants said that the body is a private matter and should be handled very carefully. For example, the cameras should be turned off during such Warm Ups, and they should only be carried out by trained moderators so that, for example, in the case of a negative body image of a participant, they can react accordingly. At the same time, the participants also saw the greatest potential here for promoting positive experiences in the context of creative workshops—because an active body means an active mind. This is one of the biggest challenges in times of working from home—physical

and mental activation (Warm UP Set Category: Activation). Furthermore, it is important to mention here that no Warm UPs with the category Tool-competence were evaluated because the experimental groups in the evaluation were all already familiar with the tools. It is important that this work is followed by further research on the possible impact of these Warm UPs on a positively experienced workshop.

Overall, the participants liked the concept and visual presentation of the Warm UP Set and could well imagine using it themselves. As mentioned above, they only wished for further instructions for physical Warm UPs or supportive advice on how to deal with someone who does not participate in a Warm UP. Accordingly, the authors would like to revise the Warm UP Set again and make it available to as many presenters as possible so that they can try it out and provide feedback to the authors.

Seeing that the literature regarding warm-ups in business contexts is still in its infancy, we prioritized evaluating how possible facilitators and participants experience and resonate with our approach. Hence, in the presented evaluation, only participants with a German nationality were considered. However, according to research on cultural dimensions [48,49] and intercultural communication [50], individuals with different cultural backgrounds could react very differently towards playful interventions such as Warm UPs at work. Especially when working in an international context, paying attention to cultural backgrounds could be key to creating the intended atmosphere for a successful workshop. Therefore, further research on different cultures participating in a Warm UP should be conducted. Additionally, this first evaluation included only a small sample of possible facilitators and participants. To be able to draw a bigger picture of the possible effect of Warm UPs, a larger sample with, e.g., diverse cultural, social, professional and experiential backgrounds with facilitation and warm-ups should be chosen.

In addition, it has been shown that Warm UPs involving the physical body of the participants seem to be more difficult to adopt (Warm UPs: “Reflections” and “Bodyflow”). It would be interesting to find out why this is the case—e.g., people might feel disturbed in their private space and think of these Warm UPs as too personal for the context of work.

Although participants felt more activated and engaged after completing a Warm UP, there is still sometimes a sense of distrust in the beginning, when participants have not participated in similar interventions beforehand. Some may describe Warm UPs as “not necessary”, as there is no direct, fully measurable impact on productivity or work outcomes. Tracing impact on creativity and work outcomes back to one variable (here: a conducted Warm UP) is often difficult, as a person’s individual personality and other events of the day can mediate the effect measured. Further research on measuring the effect of Warm UPs on creativity, especially in relation to the duration and frequency of a Warm UP intervention, should be conducted. However, a study did find differences in individual and group creativity after introducing a playful intervention (improvisational theatre) [11]. These effects become visible in the long run, but first of all, a Warm UP creates a positive experience. A positive experience in a creative workshop in turn promotes communication and exchange in the group, which can serve as a source of inspiration for the creative brainstorming of individuals, for example. For some, this might not be enough to justify the regular implementation of Warm UPs in work settings. Therefore, facilitators must be supported in confidently conducting Warm UPs, especially when participants are sceptical or resist contributing, as their inner conviction about the Warm UPs is reflected in their facilitation and thus also in the acceptance of the participants (cf. [44]). Further research and practical investigations on how to make positive experiences in work contexts more valuable to employers as well as employees should be conducted. However, while presenting the Warm UPs to different groups, people seemed to look for explanations and benefits before actively considering the Warm UPs as a tool to use, rather than just as a funny game. This barrier can be noticed among potential facilitators as well as participants. A possible reason for this is that productivity and work outcomes are traditionally most important in work settings, unlike positive experiences or well-being [51,52]. Like the issues of hedonic products summarized in the *hedonic dilemma*, participants and facilitators

seem to be hesitant when it comes to actively investing resources such as time into creating “only” positive experiences.

Furthermore, the authors see potential for follow-up research on the exploration of which psychological needs beyond those identified in the literature could still be relevant for a positive experience in creative workshops. Further research is needed here. One idea would be to first determine categories of experience for creative workshops in a field study and to derive the psychological needs from them. The approach using experience interviews [53], e.g., experiential categories [45,54], could be transferred, e.g., to the context of creative workshops. However, the link to the psychological needs should still be created here.

In addition to the Warm UP Set, there should be further steps made that enable a greater availability of positive user experiences to everyone. This is essential, as the satisfaction of basic psychological needs not only contributes to an overall positive experience in creative workshops but also to personal self-growth and general well-being in the long run [29]. A focus on positive experiences should therefore generally be established in work contexts. Although some psychological needs (relatedness, autonomy and competence) have already been transferred to and evaluated in work contexts, “research on user experience at work is still missing” [45] (p. 166). A first step in the right direction is the experience categories [45,46], which systematically record positive experiences at work. However, the systematic transfer back to psychological needs is still the subject of current research.

6. Conclusions

Warm-ups carry great potential for actively designing workshops in analogue, digital and hybrid settings in favour of positive experiences for the participants. As the literature reviewed reveals, this could lead to more productive teamwork and better work outcomes but most importantly to increased well-being of the individual. Interestingly, enough warm-ups and playful interventions in a broader sense are already used in many different contexts (e.g., school environments, psychological therapy, work contexts) successfully, but a systemized approach to foster positive experiences through satisfying basic psychological needs on behalf of warm-ups in creative workshops was lacking.

The results of the presented evaluation indicate that the Warm UP Set, with its categories and individual Warm UPs, carries great potential for fostering positive experiences among participants by fostering, e.g., a more connected and relaxed atmosphere, awareness and open communication styles. All this can in turn support emotional security and creative working styles. Furthermore, possible facilitators from different backgrounds liked the Warm UP Set and showed interest in including Warm UPs in their future creative workshops.

Finally, the authors would like to conclude with a statement from a possible user of the Warm UP Set, who, in the context of a short exchange, described a warm-up as a mirror of the current mental and physical state of the individual participants as well as the entire group of a creative workshop. This means that the facilitators as well as the participants obtain a reflection of these states and can react accordingly if something is experienced as particularly positive or not at all positive. This is also a good indicator that the Warm UPs can be systematically used to foster positive experiences. After all, good communication, being seen and being responsive to each other when working in groups seem to be the basic prerequisites for a positive experience in a creative workshop. Therefore, we conclude that the Warm UP Set is a first step in the right direction.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/mti6100090/s1>, the bespoken Warm UP Set.

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