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# PLAYFUL PARTICIPATION: HOW PEN, PROVOCATION, AND PERSONAL TOUCH BOOST USER ENGAGEMENT IN WORKSHOPS

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# KEYWORDS

PLAYFUL PARTICIPATION, USER ENGAGEMENT, USER INVOLVEMENT, GRAPHIC FACILITATION, VISUAL RHETORIC, KNOWLEDGE-SHARING, LEARNING, PROVOCATION, SKETCHING, VISUAL FACILITATION, VISUAL SENSEMAKING.



# ABSTRACT

BASED ON A CASE FROM INDUSTRY WE DESCRIBE THE USE OF GRAPHIC FACILITATION TO BOOST PARTICIPANT ENGAGEMENT IN WORKSHOPS. WITH AN OUTSET IN DESIGN SKETCHING WE DESCRIBE AND EXEMPLIFY THE USE OF GRAPHIC FACILITATION AND REFLECT ON ITS RELEVANCE FOR SUPPORTING A PLAYFUL ENVIRONMENT AND THE RESULTS ON USER PARTICIPATION IN A PROFESSIONAL LEARNING SITUATION.

FURTHER, WE PROVIDE GUIDELINES FOR PRACTITIONERS ON HOW TO EFFICIENTLY USE GRAPHIC FACILITATION IN SITUATIONS WHERE ENGAGEMENT, LEARNING AND REFLECTION ARE ESSENTIAL. THESE GUIDELINES INCLUDE USING A PERSONAL STYLE OF SKETCHING AS OPPOSED TO USING GENERIC ICONS, MAKING LARGE NUMBERS OF SKETCHES DIRECTLY IN FRONT OF THE AUDIENCE IN REAL TIME, AND CONTEXTUALIZING LEARNING POINTS IN HUMOROUS WAYS SUCH AS THROUGH REFRAMING AND EXAGGERATION.


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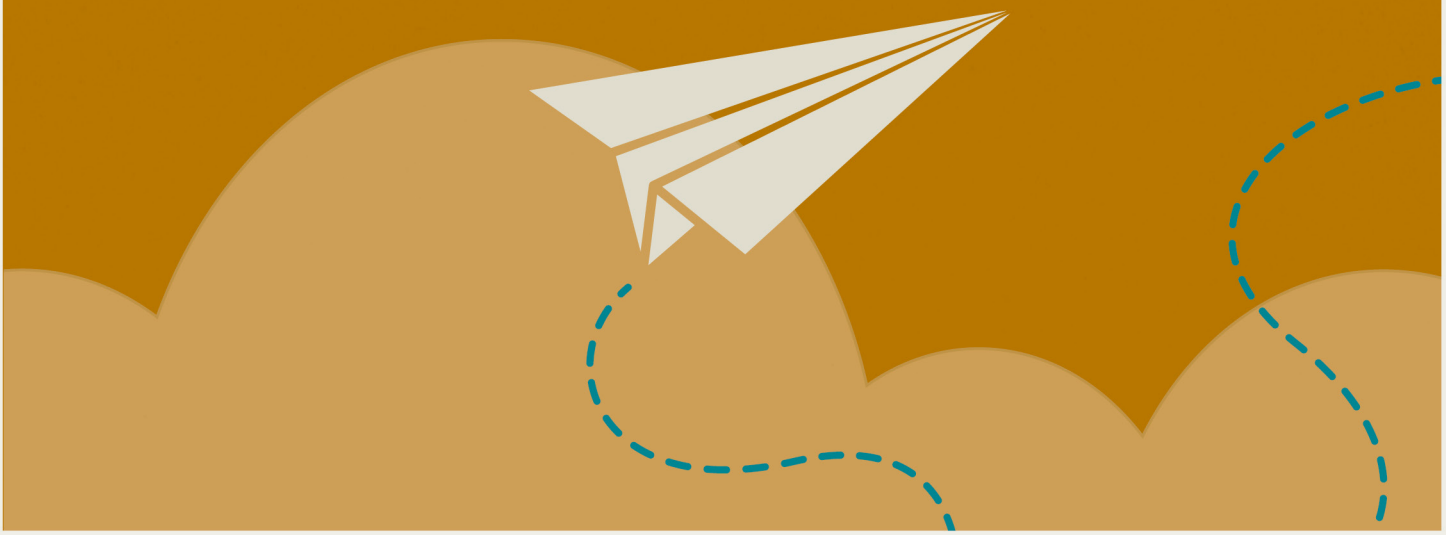

# Introduction

In businesses all over the world, professionals meet in order to learn, think and get inspired by others. We participate in meetings, workshops, classes and conferences like ever before, despite the fact that a booming industry dedicated to improve the return on meeting investment suggests that some of this time is perhaps better spent elsewhere.

Traditionally, Western culture has privileged the spoken word as the highest form of intellectual practice and seen visual representations as second-rate illustrations of ideas (for further discussion, see for example Mirzoeff 2002 and Foss 2004). Research in communication and semiotics, however, has shown how visualisations can add substantial communication value to spoken and written words (Mirzoeff, 2002). Kress expands how the semiotic modes of writing and image are distinct in their *affordances* and describes the unique contribution of visuals:

> *"Image is founded on the logic of display in space; writing (and speech even more so) is founded on the logic of succession in time. Image is spatial and nonsequential; writing and speech are temporal and sequential. This is a profound difference and its consequences for representation and communication are now beginning to emerge in this semiotic revolution" (Kress 2000, p.339).*

Semiotic revolution or not, the professional practices of using drawings to improve learning and communication in work contexts are booming. Numerous sub-genres exist in various fields of practise, including visual facilitation, sketchnoting, mind-mapping, graphic facilitation, graphic recording, scribing and rapid visualisation. Most of these would fit into the superior category *visual rhetoric*, a term used to describe communication that uses visual means to boost an argument by - for example - evoking emotions. It is beyond the scope of this paper to describe all the different sub-genres within visual rhetoric, but for an experience-based overview of key terms within specifically rapid visualisation, see (Nørgaard, 2015).

In this paper we explore the value of sketching through a cases from the industry. First, we describe a case where sketches were used to improve the experience and learning outcomes of a series of workshops in the Danish construction industry. Then, we discuss the case in order to explore how the use of sketching might be deployed to enhance playful participation between participants in a professional learning context.

# Related work

## The relatedness of playfulness, humour and new thinking

Though *play* and *playfulness* are concepts naturally linked with childhood, adults are fully capable of playing and can benefit a lot from these activities (see for example Sutton-Smith, 1997; Brown, 2009; Bateson & Martin, 2013). Playfulness can be identified as a particular positive mood state, which drives creativity and innovation, and helps people escape conventional thinking (Bateson & Martin, 2013, p.5).

In "Playing with Ideas" (2011), Patrick Power explores the term playfulness as an attitude in an adult context and maps its relationship to creativity. In the context of creative processes, Power relates the use of humour to the experience of playfulness: "We are all familiar with established patterns, with habitual, lazy, or clichéd ways of perceiving, thinking, and feeling. Humor often relies on incongruity, on disrupting pattern and expectation (...) Through wit and humor, we can disrupt the basis by playfully switching perspectives, by collapsing categories, by creating fresh blends and unexpected connections, and by confounding expectations." (Power, 2011, p. 308). A similar relation between humour and new thinking has been made by De Bono (De Bono 1972 and 1990).

Maybe unknowingly, Power suggests a link from playful activities to visualisation practice, when describing how playful activities strengthen our emotional system by using *associations* and *metaphors* (Power, 2011). The ability to associate rapidly is key when creating visualisations, and especially real time visualisations where the demand for fast ideas often results in extreme motifs and metaphors (see figure 1, and for more examples in English, see http://mienoergaard.dk/2016/02/emec16/).


**Figure 1:** *Rapid sketches from a workshop on IT security and architecture. The sketch re-contextualises topics in relation to a stream flowing from the mountains. A large three-eyed fish is being hauled from the water to suggest 'surprising output', for example.*

## Sketching practices in design

In the design community, sketching is often understood as the production of paper sketches of the type described by Goldschmidt (1991, 2003), but in fact, sketches can take many forms. Buxton (2007) uses the term sketch to describe any representation of an idea or concept that can be used to get new ideas, develop old ones, or think about well-known issues in a new fashion. Consequently, a sketch can be pen on paper, a design artefact or physical performance of, say, an intended interaction design. In the literal as well as in the metaphorical sense, designers sketch to help themselves and others see things in new ways, including physical forms which can be sketched using 3D modelling or experiments with materials, modes of interaction, and the potential use context of a design, which can be sketched using enactment techniques such as forum theatre, (Newell et al., 2006) or bodystorming, (Oulasvirta et al., 2003).

No matter the material properties of the sketch, the act of sketching is a technique for aiding idea generation and exploration of ideas in a design situation. Accordingly, the activity of sketching facilitates reflection in action (Schön, 1983) because of the on-going dialogue between the sketch and the sketcher. In some cases this is also referred to as backtalk (Goldschmidt, 2003), a pragmatist perspective where ideas are framed and reframed through craftsmanship and dialogue with materials (Brinkmann & Tanggaard, 2010).

The activity of crafting and creating sketches depends on a series of choices that spark the process of and attention to the framing and reframing of a topic, as described by (Paton & Dorst, 2011). Apart from supporting reflection in action and the framing of concepts, sketching is also practiced by designers because it helps them talk about and share an idea, as well as remember and store its key components (Ferguson, 1992; McGown & Green, 1998; Ullman, Wood, & Craig, 1990).

## Making people think with provocation

Designers make use of provocation to drive discussion and help colleagues and users see things new ways. In critical design, for example, provocation is used to force consumers to reflect on the values and challenges of living with digital technologies (Dunne, 2005; Dunne & Raby, 2013), or challenge the ideology inherent in a certain design, such as SignWave's Auto-Illustrator that imposes a non-precise input mode on the user of an application for digital drawing (Brynildsen, 2002). In participatory design 'provotypes' are used as provocative tools to challenge design assumptions made by designers and other stakeholders (Boer & Donovan, 2012). Elaborating on the earlier mentioned pragmatist perspective, other research has examined the productive role of material artefacts in participatory design events (Hansen & Dalsgaard, 2012). Hansen & Dalsgaard emphasize how the design space dynamically changed when participants materialized scenarios and were forced to reflect on whether the current solution was preferable or whether an entirely different one should be attempted. In this way, the design space transformed throughout the workshop and provoked participant reflection (Hansen & Dalsgaard, 2012, p. 671).

Building on the abovementioned research, we advocate for the value provocative sketches in any workshop with a purpose of user involvement and learning. Since the sketches' physicality, content and hand drawn nature makes them work well as tickets to talk (Sacks, 1992), they seemingly lower participants' threshold for engaging in a discussion with strangers. The reason for this can be found in brain studies that show how our brain is far more active when we watch someone draw live as opposed to when we look at a ready-made illustration. Related studies show how the human ability to make associations increase when

we experience someone drawing live (Brown, 2009). Thus, the sketches become a driver for imagination as well as knowledge sharing among participants.

In earlier work attention has focused on the participatory design element of having participants do the sketching in design workshops (Mitchell & Nørgaard, 2011), but in this paper we will focus on the value of a professional sketcher that works in front of the participants. The extreme sketching technique described by Nørgaard (2011) uses humour and extreme situations (exaggerations) to document and provoke discussion, in order to help participants engage with challenges and to boost new thinking.

Later, when we present our case, we will give examples on how extreme sketching is used to spur playful discussions between participants.

## Graphic facilitation practice inspired by design sketching

While sketching is a well-established discipline in design and architecture, other industries have taken inspiration from this discipline and build their own practices. One practice is described by Sibbet as *graphic facilitation* (Sibbet 2001 and 2008). Graphic facilitation is inspired by the practice of designers and architects, and entails an interactive style of facilitating groups of people in thinking, reflecting and remembering using large-scale visuals (Sibbet, 2001). The practice has grown directly from a network of American consultants from companies like Interaction Associates and The Grove Consultants International Design have since the 1970's spread globally with as many variations as practitioners. In the following, we use the term graphic facilitation to identify the specific practice described in the case, and graphic facilitator to name the professional carrying out the activities. We use the term sketches to describe the physical manifestations of the practice.

In this paper, we explore how graphic facilitation can be used by a professional in front of an audience to help them experience some of the effects of design sketching described above. The work discussed above clearly ties the act of producing sketches together with creativity, playfulness and new thinking, and in this paper we set out to explore if the effect of sketching exceeds beyond the sketcher and also affects the participants of the workshop. We hypothesize that having a professional graphic facilitator demonstrate values such as 'be evocative', 'explore', 'produce fast', 'quantity over quality' which are inherent in - especially Buxton's understanding of - sketching, will in fact affect the general atmosphere in a workshop and help the participants experience a playful set of mind.

We also hypothesize that the use of provocation and humorous motifs support playful participation and help participants talk about, share and remember the content of the workshop. This way we re-conceptualize the notion of sketching moving the discourse from design and architecture to education (Bernstein 1996) and hope to contribute to our understanding of how graphic facilitation might be used and evaluated.

## Case description

The examples discussed in this paper originate from a series of six full-day workshops for employees working for the large Danish contractor, Enemærke & Petersen a/s. The workshops aimed at teaching customer-centered service and conflict management. Participants were mostly construction workers from the company s many construction sites, such as plumbers, carpenters and painters, but also included administrative staff and management.

During the full-day workshops participants were required to get acquainted with theories about conflict psychology and conflict management, and reflect on what behaviours might influence customer experience and the social/professional interaction between different stakeholders in a large construction project. Finally, participants were intended to engage actively in the dialogue about company values and reflect upon which behaviour would demonstrate those values.

To boost the level of engagement and to help participants who -for most parts- were not used to sitting down listening for hours, we chose to supplement the traditional 'lecture-and-PowerPoint' communication with graphic facilitation.

Based on our knowledge about and experience with how sketching helps inspire thinking in a traditional design context, we chose to make use of rapid graphic facilitation to see if we could make the workshop participants experience the effect of

sketching even though they were not involved in producing the sketches. We did so specifically in order to:

1) Help participants concentrate during lectures
2) Engage participants in reflection and dialogue
3) Support an energetic and relaxed atmosphere in order to get an honest and constructive dialogue with participants, and
4) Facilitate knowledge-sharing and memory.

In the discussion, we will return to these four goals.

The company paid a fee for the service in accordance with the market price for professional graphic facilitation at the time.

## The practical setup

Each workshop was set up in a large open space with about 50 participants seated in groups. The process included presentations from various teachers supplemented by group exercises aimed at supporting dialogue with the participants about key elements in the presented theory.

The wall behind the teachers was used to display a PowerPoint presentation. On both sides of the stage was placed two-sided mobile whiteboard each containing blank A1 papers that were to be used by the graphic facilitator.

## Process and technique

During each workshop the graphic facilitator would listen to teachers and audience from stage and interpret themes, examples, questions etc. in rapid sketches, providing a real time channel of visual input to the participants.

Emphasis was put on producing sketches with motifs showing context and actions, as advised by Nørgaard (2011). Speed and quantity was prioritized over details and finish (as advocated by, for example, Buxton 2007) to keep the flow and to keep sketches open for interpretation. The sketches were produced in a continuous flow resulting in eight posters with sketches at the end of each workshop. To summarize key learning points, the graphic facilitator would present the sketches from stage in the last minutes of each workshop. The following day, participants were given digital copies of the sketches in order to boost their memory (for one example, see figure 2).


**Figure 2:** *After each workshop the eight posters were digitized and organized side by side in A3 format. Participants would receive a copy the day following the workshop they attended.*

Before leaving the workshop, participants were asked to fill out a feedback form evaluating the relevance of content, the teaching style and participants' own contribution. The feedback was not analyzed systematically, rather used as a guide for changes to be implemented in the following workshops.

Before and after each workshop a brief informal meeting with teachers and customer stakeholders aimed at making changes to practice in order to improve the return on investment. In these meetings we discussed possible changes in practice based on observations and participant feedback.

# Results

In the following, we will present observations made during the workshops. We will also present key insights from the meetings we had with the teachers and company stakeholders between and after the workshops. Later we will discuss these results in relation to playful participation.

## Observations made during workshops

During the six workshops, we experienced the participants observing the production of real time sketches closely. In breaks, about half of the participants made a detour on their way to pick up coffee, and stopped to study the sketches. As a rough estimation, half of the participants would spend about a total of 10 minutes studying the sketches during one workshop. Once in front of the sketches they would talk about some of the stories depicted and joke about certain motifs. Especially people who, during the teachers' presentations, had noticed their own comments being sketched seemed keen on taking a closer look. In several instances we observed how a spectator would call on a colleague in order to show him a specific sketch (see figure 3).


**Figure 3:** *One participant advised that employees do 'more than what is expected of them' (the text in Danish). The argument was deliberately misinterpreted by the graphic facilitator and resulted in an exaggerated motif. In a break the participant in question would rush to the poster to study the sketch, and call on colleagues in order to share it.*

The teachers used the sketches ad hoc when referring to points previously made in the workshop. When discussing a certain theoretical model, which was no longer visible in the PowerPoint presentation behind them, they would walk over to the posters containing sketches related to that model, and point to the sketch while asking a question to the participants. Teachers would also use the spatial distribution of the whiteboards across the stage to emphasise a point. For example, when referring to a topic presented in the very beginning of the workshop, the teacher would walk a long way - about 10 metres from the centre of the stage to the very first whiteboard, as if walking back to a specific time of the day. From this position he would continue talking, until 'moving forward in time' to the present (center stage).

## The physical space is changing

The atmosphere of a physical space plays an important role in shaping the behaviour of the people inhabiting it. Designers put effort in building up dedicated design spaces filled with photos, material swatches, sketches etc. in order to form a creative space to inspire thinking, knowledge-sharing and engagement. As Buxton frames it: "A design studio without ample space to pin up sketches, reference photos, clippings and the like (...) is as likely to be successful as an empty danceclub" (Buxton, 2007, p.153). In other words, the physical space reflects the activities of imagination and explorative dialogue, and the visual representations on the walls document and encourage new thinking.

In the case presented in this paper, every workshop would start with a similar arrangement: large empty posters fill up the predominant area of the stage, suggesting that they are placeholders for important information to come. After seven hours of workshop, the look and feel of the physical space have changed: the calm white surfaces have been substituted for a host of

colourful sketches suggesting a high level of activity during the workshop. Seemingly, the graphic facilitator has build up the equivalent of a design space on behalf of teachers and participants.

## Reflections on value from the customer workshops

As described above, we continuously discussed observations and participant feedback with teachers and company stakeholders in order to improve practice and return on investment.

Feedback from company stakeholders and participants suggested that participants experienced that graphic facilitation supported their ability to concentrate during presentations. It seems that both the activity of producing sketches and the physical sketches themselves helped participants engage in the workshop topics mentally.

After the workshops the participants used the sketches to share knowledge and support their memory. Company stakeholders reported how participants would hang copies of the sketches in their workplaces (the trailers at the construction sites) and how they would explain the content to newcomers and visitors.

Inspired by the use of sketches as a tool for knowledge-sharing and repetition, the company used selected motifs to illustrate a booklet on customer-centered service and conflict management, which summarized the content of the six workshops. These booklets were given to all employees (see figure 4). The company later reported that many employees shared the booklet with their families at home, unknowingly perhaps, repeating central learning points and theories to themselves.


**Figure 4:** *Selected sketches were re-used in a booklet that repeated key learning points combining text and illustrative sketches.*

Finally, the company reported how they re-used sketches from the six workshops to support written communication to employees regarding customer-centered service and conflict management.

# Discussion

In the beginning of this paper we proposed to re-conceptualize the activity of *sketching* in order to boost playful participation in work settings. We hypothesized how having a professional graphic facilitator demonstrate sketching values would affect the workshop atmosphere, and inspire participants' playful participation. Further, we hypothesized that humour and provocation is related to playfulness and can serve to help participants talk about, share and remember workshop content.

In this section we will discuss the case presented above in order to explore how graphic facilitation might be deployed to enhance playful participation. We specifically focus on understanding which qualities of the product (the materials and content) and the practice (the actions) of graphic facilitation that support a playful atmosphere amongst participants. We organize the discussion around the four goals presented in the case description in order to frame our examples of what playful participation might look like, and how it contributes to the learning environment.

## Help participants concentrate during lectures

Feedback from customer stakeholders and workshop participants suggest that participants used the graphic facilitation to stay concentrated on the teachers' presentation. Stakeholders reported how participants seemed to pay more attention to presentations than when attending workshops without graphic facilitation. We speculate that this may be because the high level of activity level on stage spurs curiosity and that the gradually unfolding visuals captivate the attention of participants.

Participants described how graphic facilitation would help them direct their focus to the stage and how it would support their listening better than static PowerPoint slides. Seeing content being interpreted real time in sketches was mentioned as attention grabbing and an inspiration to think differently about the content presented orally. Such experiences are backed by current brain research (such as Brown 2009).

Teachers reported how graphic facilitation inspired them to improvise and move on stage, and that the physicality of the sketches invited a dynamic teaching style. A teacher could, for example, with good reason move across stage and grab a poster to make a reference in time or content, an activity that would entail pausing, moving and the use of physical gestures to grab participants' attention. The posters were produced systematically from left to right (seen from the audience) and this presented the teachers with the possibility to -metaphorically- walk back and forth in time by moving from left to right on stage while still keeping the big picture (for similar reports, see Nørgaard 2012).

## Engage participants in dialogue

Dialogue between participants is desired in most learning situations and the degree of dialogue is often linked to participants' emotional state (Power 2011). The use of provocative misinterpretations or humorous metaphors in graphic facilitation supposedly sets off different emotions in the spectator. For example, the *hand-drawn quality* of the sketches is known to spur curiosity, *misinterpretation* of an argument might set off a sense of annoyance or confusion, and the *reframing* of a topic may cause surprise and laughter. Such mixed emotions are known from previous work to motivate humans to approach others and seek dialogue (Power 2011).

Let us explain this argument with an example (see figure 5). During the workshop, the teacher explained that any given person can choose between two different responses to a situation that he himself finds wrong but others not. Workshop participants were urged to discuss possible situations where a conflict might appear because one person was unable to see a situation from another' perspective. The graphic facilitator captured this with an example, namely a man in a bathroom facing a roll of toilet paper 'incorrectly' placed in the dispenser. The sketch shows – in an extremely exaggerated way - the two ways the man can chose to react to the problem: one focussing on the problem, the other on the solution.

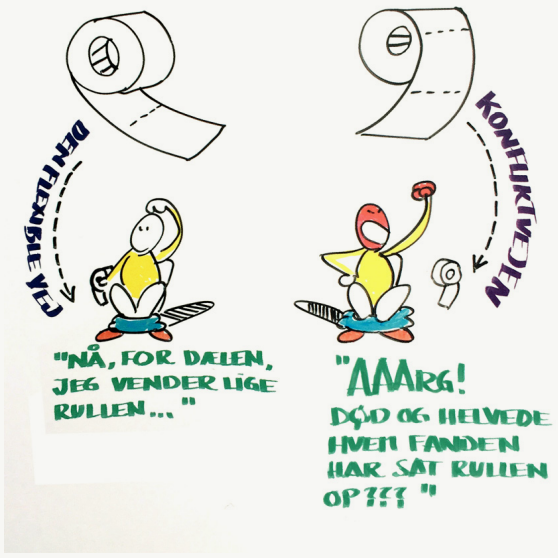


**Figure 5:** *The sketch exemplifies two ways a person can chose to react to the problem - with a focus on the conflict or the solution. It does so by deploying misinterpretation, exaggeration and reframing in order to obtain a sense of provocation.*

The example uses misinterpretation, exaggeration and reframing in order to obtain a sense of provocation. The choice of explaining the argument with a scene from a bathroom removes it from a serious work situation, and adds an unpretentious touch to the argument while making the point very clear.

Another example illustrates the advice from a participant about 'doing more than what is expected of you' in order to secure customer satisfaction. The graphic facilitator sketched a plumber who proudly - to a horrified woman and child - announces that he has had their annoying rabbit put down (figure 3). This is a deliberate

misunderstanding of the argument in order to provoke emotions, and the result is a motif that is surprising and shocking, but also funny due to its grotesqueness.

The sketches depicted in figure 3 and 5 were later used for the booklet and to support ad hoc communication. The sketches were chosen, because participants were observed to enjoy them and share them, and because they illustrated important learning points in a surprising way, demanding the spectator' brain to engage in interpretation.

Experiencing how a professional plays with arguments and serious learning points this way, seemed to inspire participants to talk, share and do the same. We suggest that the light-hearted nature of the motifs and drawing style lowers the bar for contribution and invites participants to speak up with their own stories. For example, the motif depicted in figure 3 invites participants to play with reframing activities that they naturally perform as part of their work, such as "giving the customer more than they expect". A group of painters studying this particular sketch, jokingly talked about how they "re-decorate" when they move the furniture in people's homes and how they "carry out the trash" when they remove unused materials from a site. Such reframing and playing with alternate interpretations fall under the definition of playfulness discussed in a previous section (Power, 2011). The last example opened a discussion of whether a construction worker actually *should* remove trash from the household as an extra valuable service if it meant no extra work for himself.

An important goal for the graphic facilitator is to inspire dialogue with sketches, but participants do not have to agree with or find the graphic facilitator's interpretations complete. Sibbet (2008) has reported on how disagreements can lead to further explorations of, for example, common values in the company, and seemingly, so can reframing of company values in a humorous way.

While the activities and products of the graphic facilitation inspired participants to engage more actively in debating and understanding, the ability to play with content does require that each individual carry out a great deal of mental work in order to - for example - reframe an argument rapidly. The activities involved in reframing include fast analysis, interpretation and association, which are important to human understanding and memory. We suggest looking closer into more specific attributes of graphic facilitation that support mental activities like reframing even further.

## Support an energetic and relaxed atmosphere

Demonstrating sketching values such as 'be evocative', 'explore' and 'produce fast' involves working with fast materials such as pen and paper. The fast production of sketches will often result in a very dynamic and personal style of drawing since the graphic facilitator has no time for corrections or finesse. Earlier research has shown how the 'unpolished' and 'relaxed' nature of sketches is key to inviting people to engage in dialogue and to dare criticize interpretations (Buxton, 2007; Nørgaard, 2012).

While the physical manifestations of explorative sketching in a design situation influence the behaviour and thinking of the people involved, the same seems to be true for the use of sketching-inspired graphic facilitation in a completely different domain. The practice of interpreting spoken dialogue into sketches real time means that the graphic facilitator is constantly moving around, sometimes jumping back and forth between several sketches, adding contnet to fit the ongoing dialogue. As a result the graphic facilitator is physically very active and visibly produces a high quantity of work. These two factors seem to influence the atmosphere in the room because they contrast the contribution from participants and teachers in a traditional learning situation. In such situations, participants are not very physically active and their production is either invisible (mental) or highly impermanent (spoken words). While the speed of production in our case is high-paced, the atmosphere is relaxed rather than stressing. We suggest that the lo-fi materials and the rough qualities of the sketches contribute to this feeling, just as described by Buxton (2007). They are, after all, just quick drafts on cheap material, and are not to be taken too serious.

## Facilitate knowledge-sharing and memory

Handmade sketches seem to hold a special property that invites the human eye to look and the brain to engage (Brown 2009), but the content –the motif- is not indifferent. Sketches that illustrated, for example, a story about poor customer service, would in coffee breaks draw the person sharing that story closer in the same way that most people will be attracted to browsing photographs, if they know they appear in some of them. Similarly, sketches that made use of humorous elements such as exag-

geration, deliberate misinterpretation or surprising contexts, seemed to draw participants closer in order to, for example, talk about them with their colleagues. Such an activity requires the participant to engage mentally with the content of the sketch - for example explaining to a colleague why he finds the particular misinterpretation funny - and mental engagement, we know, is a prerequisite for memory.

Content that made use of humorous metaphors or reframing of an argument, also inspired participants to share the sketches at home. This was facilitated by the A3 reproductions of the sketches made after each workshop. Since family members were unfamiliar of the workshop content, participants would have to accompany the visuals with an oral explanation of, say, the specific purpose of a theoretical model. In this manner, the sketches supported repetition of workshop content.

The fact that participants would put up the A3 collections of sketches in their workspace and share them at home, suggests that the material qualities, the personal hand-drawn style, and the attempts to contextualize learning points in a humorous way, helped the workshop content live longer and get wider distribution.

# Conclusion and practical guidelines

In the following, we conclude on the relationship between graphic facilitation and playful participation in workshops. Moreover, we sum up insights into guidelines to help practitioners understand the value of certain attributes of graphic facilitation such as the materials used, a hand-drawn personal style, and the use of metaphors that contextualize and reframe learning points in a humorous/provocative way.

In our work, we re-contextualized the practice of design sketching in order to support a playful atmosphere in a series of workshops. Design sketching is a way of working that builds on a set of goals and values, including, for example, fast-paced production of a high number of ideas/interpretations and cheap materials. We argue that the same values that apply for successful sketching practice is essential to an atmosphere of playfulness. In the case presented, graphic facilitation is deployed in order to introduce and demonstrate these values in a workshop, leading by example, so to speak.

The material qualities - the use of pen and paper - and a fast personal style of real time sketching seems to help participants engage mentally and teachers to use the sketches in a flexible way supporting their presentations.

Extensive use of humour and metaphors seemingly invite a playful approach to interpreting and discussing key learning points. Also, the study suggests that contextualizing learning points with humorous or provocative metaphors inspire knowledge sharing and supports memory.

## Guidelines for practitioners

A graphic facilitator has great impact on a learning environment and will certainly influence the dialogue. Below, we present guidelines for practice in learning environments where playful participation is desired:

1) Use pen and paper or other low-tech materials. They support rapid production in large quantities, have a permanent presence in the physical space and the large-scale visuals can be used by teachers to achieve a dynamic teaching style.
2) Use humorous metaphors, contextualization, exaggeration or reframing of an argument. Such motifs are easy to engage with and they allow participants to play with the learning content themselves.
3) Make room for critical comments on the sketches in order to facilitate reflection, exploration and discussion. Build on the sketches and change them to fit the on-going dialogue.
4) Facilitate an on-going dialogue with teachers and other stakeholders in order to discuss possible changes in practice based on observations and participant feedback. This secures that the graphic facilitation practice is adjusted and aligned with the customer's intentions with the investment.
5) Make the sketches available for the participants in an easily distributed format after the fact. This facilitates knowledge sharing, repetition and memory.

On a general level, we advocate for educational settings where participants are invited to share experiences and develop ideas together in a creative community. We understand the graphic facilitator as a facilitator of new thinking and the sketches as actors in the process, as they spur reflection, interpretation and dialogue. Our approach is inspired by the values of Anthony Dunne and Fiona Raby (2013) in that we also advocate a playful atmosphere where participants are invited to imagine possible futures and engage in new perspectives. For further research in the field of participatory design workshops, we suggest a broader examination on how graphic facilitators can invite participants into co-sketching activities in order to explore their own visualisation of multiple perspectives using humorous metaphors.

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