

# Applying participatory design principles to collaborative art-creating sessions

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## ABSTRACT

Participatory design (PD) is an established design practice that is particularly widely used in the field of Human Computer Interaction (HCI) and is based on involving all stakeholders in design process. Considering the popularity of this approach, one might wonder if the same design principles can be applied in other domains, for instance, visual and fine arts. For this study, a small sample of people, who usually would be just passive spectators of art, was invited to participate in a creative workshop organized by PD principles and to create a fine art themselves. This way, people with only past or little artistic ambitions became “users, taking control” rather than passive consumers of an end-product. The participants reflected and documented their feelings before and after the event. Preliminary results suggest that this hybrid approach positively contributes to the relationship dynamics within a formed team and evokes an interest in individual creative activities.

## CCS CONCEPTS

• : Applied Computing-Arts and humanities-Fine arts; Human-centered computing-Collaborative and social computing-Collaborative and social computing theory, concepts and paradigms-Collaborative content creation;

## KEYWORDS

participatory design, collaborative art, painting, aesthetics, workshop design

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## 1 INTRODUCTION

Romanticized fine art and rational design seem to approach creativity very differently, yet those domains share some similarities when it comes to the traditionally organized work processes – both suggest that creators (artists, designers, engineers), due to their experience and training, have a right to decide the shape and complexity of the end product. Be it a painting, a webpage or a building

– creator executes and presents an artifact for a world to see and use, an artifact that is completed and whole, leaving little to no space for negotiation and change.

Participatory design is a philosophically and practically different approach to the mentioned above “undemocratic professional elitism” [26]. It is set of practices and studies that actively involve the end users in the design process to help ensure that the product meets their needs [4] but it can also be approached as an ideology, and also clearly refers to questions of ethics, politics, democracy and empowerment [26]. It has been used in design, urban design, architecture, landscape architecture and planning as a way to create environments that are more responsive and appropriate to their inhabitants and users’ cultural, emotional, spiritual and practical needs [6]. In the Scandinavian countries, user participation in system development has been discussed and practiced for more than two decades [2]. Scandinavian participatory design approach was to democratize workplaces by evenly distributing decision-making processes among participants [4]. So, in participatory design, the goal is not only to empirically understand the activity, but also to simultaneously envision, shape, and transcend it in ways the workers find it to be positive and provide them means to control their work. In participatory design, participants’ co-interpretation of the research is not just confirmatory but an essential part of the process [1].

Several studies [for instance, 22, 23] have been dedicated to exploration of collaborative artistic practices, but only a few included PD approach. In those studies [8, 12, 24] that explored the potential of PD in artistic practices the process was described as event that “seeks to embrace the body-mind as one, to fuse art and science, and to integrate diverse forms of knowledge in an open, collaborative, and creative way” is this [14: 697], which demonstrates hopeful and positive outlook for further research. Collaborative art making is a platform for knowledge co-production, whereby novel ideas or products emerge from different ways of knowing [14]. Outcomes of knowledge co-production create an understanding of a particular situation or context that is richer than any individual perspective alone can provide [15]. It is worth mentioning another interesting study that used collaborative art practices for a HCI research [24] and explored the potential of participatory and collaborative art interventions as a method of HCI research and inquiry. The study demonstrated that collaborative and reflective art-making practices can extend HCI notions of creativity, collaboration, and design.

Last, but not least, participatory “design after design”, has been proposed by Björgvinnson et al (2012) who pointed out that there are stakeholders other than immediate users and that people appropriate designs in unforeseen ways. Envisioned use is hardly the same as actual use, no matter how much participation has occurred in the design process [21]. This concept resonates well with the

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notion of art being accessible to an unlimited number of different viewers (stakeholders) and continuing to influence even after the active design part is over.

For our particular study the intention was to project the principles of participatory design (quality of life, collaboration, iteration) in Human Computer Interaction to the artistic processes.

## 2 PARTICIPATORY DESIGN PRINCIPLES

For claiming the application of PD in a particular workshop we define the core principles of PD and draw nascent criteria from the methodological principles [1] by referring to several studies and apply those principles to the context of an artistic workshop. Spinuzzi et al (2005) has summarized the main aspect/criteria of participatory design throughout its historical development, which are useful for our case/practice:

- **Quality of life** - aim to improve. This methodological principle translates into an exploration of tacit knowledge, invisible work, and unstated individual and organizational goals.
- **Collaborative development** - by inviting participants to be co-researchers and co-developers. Doing so allows researcher-designers to elicit and explore the tacit knowledge and invisible practices that might otherwise have been lost.
- **Iterative process**. This methodological principle translates into a requirement for a series of opportunities to sustain the continuous member check.

Another well-defined list of PD principles was brought by Bjögvinsson et al (2012):

- Designers should be more involved in the big picture of socially innovative design, beyond the economic bottom line.
- Design is a collaborative effort where the design process is spread among diverse participating stakeholders and competences.
- Ideas have to be envisioned, “prototyped,” and explored in a hands-on way, tried out early in the design process in ways characterized by human-centeredness, empathy, and optimism.

We see that both Spinuzzi and Bjögvinsson are mentioning conceptually close notions of **quality of life**, **collaboration** and **iteration**. Hence, those mentioned criterions were taken into account when designing this study.

## 3 METHODOLOGY

### 3.1 Reflective practice in collaborative art creation

The design problem for the workshops was a group of people needing an art piece to decorate previously empty office walls. All participants were working in the same company, but some were not sharing the mentioned above office space. In a regular scenario the art could be either purchased from the shop, gallery or custom ordered from an artist.

But this approach means stakeholders can only select an art piece in its finalized shape. This scenario was challenged during the workshop described in this study and the art was created by

people who will later see it on an everyday basis (so, metaphorically speaking, “users”).

The core idea of the workshop is to combine participatory principles with collaborative art creation and gain qualitative data about this experience from the workshop participants, and to see how their feedback resonates with three PD concepts of quality of life, collaboration and iteration. In order to do that, semi-structured questionnaires were designed for participants to share their speculations and reflections. There were two questionnaires distributed to each participant in two time-dependent phases: Phase 1 questionnaire was distributed before the workshop and Phase 2 was distributed after the event. Both questionnaires are based on a reflective practice method [16, 17] and Gibbs’ reflective cycle model in particular [18]. Reflection is one key practice that has long been recognized as an important and valuable cognitive process [19] and in the context of this workshop it seems an especially valuable tool for harvesting first-hand qualitative data about the participants’ experiences and emotional feedback towards the event.

Gathered data was later analyzed and organized by sub-themes, participants coded by P1... P4 tags. Evidence in a form of direct quotations from participants were presented to support the validity of concepts.

### 3.2 Workshop setting and organization

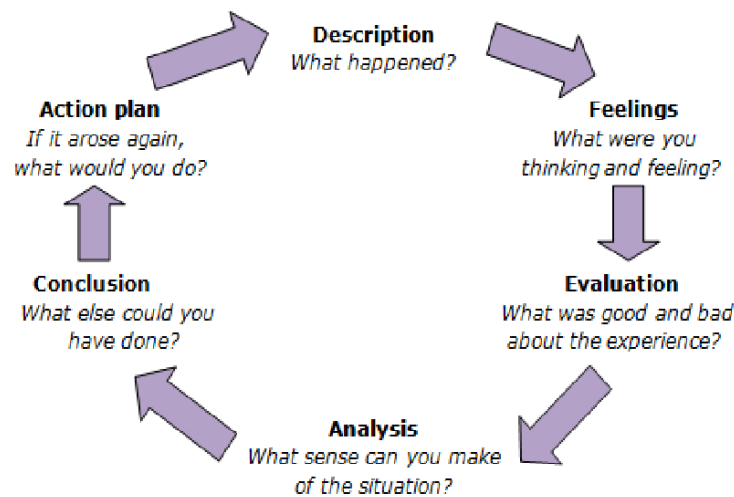
The workshop setting was organized by a person who will be further called a “facilitator” and workshop attendees will be referred to as “participants”. This describes the organizational setting quite well but has a hierarchical structure tacitly implied. However, PD practitioners share the view that every participant in a PD project is an expert in what they do, whose voice needs to be heard; that design ideas arise in collaboration with participants from diverse backgrounds [10]. The role of the facilitator in this particular setting was to organize the event, invite and support participants during the session, gather and process the feedback given before and after the workshop. There was no pressure on participants to act or perform in any way preferred by the facilitator and personal contributions and initiatives were actively encouraged.

Seven people were invited to participate in the workshop, out of which four attended the event (coded in the result section as P1, P2, P3 and P4). One of participants had some experience with artistic expression and painting in particular while other three had little to none experience of painting in the adulthood.

### 3.3 Artifacts and materials

The art piece creation workshop was designed by several criteria:

- **Triptych setting**: a set of 3 canvases on wooden frames. The setting allows enough space for participants to express themselves without risking over-coverage of each other’s contributions.
- **Mixed media technique**: in order to maximize creativity within the group there was no limit or guidance on technique or tools used.
- **No guidance on performance**: Each participant was able to contribute in a way he was most comfortable and enthusiastic.



**Figure 1: Gibbs' reflective cycle.** Adapted from "Learning by doing: A guide to teaching and learning methods," by G. Gibbs, 1988, Copyright 1988 by Oxford Further Education Unit. [13:23]

The range of available media included: pencils for sketching, acrylic and tempera paints, variety of brushes, painting-knife, palettes for mixing paints, pieces of pre-painted and pre-cut paper for collages and inspiration.

Participants were given printed out questionnaires in two phases. The Phase 1 questionnaire that was distributed before the workshop addressed participant's doubts, expectations and anticipation of expected contribution to the creative process and collaboration and was briefly based on the same model but adapted for anticipated events and speculation about expected experiences and outcomes, still following the structure of Gibbs' model and its basic principles. Phase 1 questionnaire included following questions:

1. What outcome do you expect from this workshop?
2. How do you feel about participating in such a workshop?
3. Have you participated in collaborative art workshops before?
4. How do you anticipate your performance during the workshop?
5. What will be your personal goal during the workshop?
6. Do you feel like you have all the means to participate in this workshop (tools, environment, mood etc)?

The Phase 2 questionnaire, that was distributed after finalizing the art process and witnessing the final piece, consisted of reflections and feedback for the event, overall result and personal learning outcomes. This questionnaire was composed using the Gibbs' reflective cycle model and consisted of following seven questions:

1. How would you describe this workshop?
2. What were your thoughts and feelings about the workshop?
3. What was good and bad about the experience?
4. What sense can you make about the situation? What choices did you make and why?
5. What have you learned during the workshop?
6. What would you do differently next time in a similar workshop?
7. Did you like the end result?

Consent forms were signed by all the participants before the start of the workshop. The consent form explained the workshop, who the researchers are, that no harms will occur for the participants and that they can stop at any point they wish, addition is asked if the outcomes of the practice can be presented in conferences and papers.

## 4 ANALYSIS AND RESULTS

In qualitative analysis several simultaneous activities engage the attention of the researcher: collecting information from the field, sorting the information into categories, formatting the information into story or picture, and actually writing the qualitative text. [25] Categories were pre-defined by the framework of this study and PD principles listed in section 3, in accordance with Spinuzzi et al (2005): quality of life, collaboration, iteration.

Data analysis was conducted through identification of sub-themes through "careful reading and re-reading of the data" [9:258] gathered from two reflective questionnaires and grouping findings by sub-themes principle. Since the study was designed in a manner that stimulates reflection and evaluates participants' expectations and experiences before and after the PD art session, the results from questionnaires are divided into two separate sections and grouped into themes based on PD principles. As it is impossible to anticipate the iteration before the event, this category only appears in Phase 2 part of the results.

### 4.1 Phase 1 (pre-workshop)

### 4.2 Phase 2 (post-workshop)

Phase 2 included questionnaires filled after the workshop and gathered data about participation experience in this particular event.

### 4.3 Workshop artistic process and result

This section contains images from the workshop process and of a physical artifact as a result of workshop's Iteration 1.

**Table 1: Quality of life**

Sub Themes	Evidences
Self-improvement	“I expect to improve participatory design understanding.” (P1) “I feel excited to learn new things” (P4)
Quality time	“I feel excited to do something hands-on”, “My mood is generally positive” (P4) “Getting something done” (P3) “This will inflate my ego” “I feel great about participating” (P2)
New experiences	“I feel interested” (P1) “I haven’t participated in such events before” (P2)
Anticipation	“I expect a piece of art as an outcome.” (P1) “I think my performance will be low”, but “My goal is not to give up” (P2) “I am tired, I anticipate my performance as slow” (P3) “I expect my creative knowledge to be enhanced. I want to go freestyle, not to follow rigid guidelines” (P4)

**Table 2: Collaboration**

Sub Themes	Evidences
Co-creation	“I hope to learn some art and design concepts from interacting with co-designers and facilitators”, “I have participated in collaborative team events, but this is my first collaborative art workshop.” (P4)

**Table 3: Quality of life**

Sub Themes	Evidences
Thoughts and feelings	“During the workshop I thought: how to paint? What am I doing?” (P1) “I might still have painting to my life” (P3)
Quality time	“This was interesting and exciting” (P1) “It was awesome!” (P2) “It was very nice despite the fact that I was tired. Such a long time since I’ve been painting. . .” (P3)
New experiences	“Good thing about the experience – new things” (P1) “I think no one realizes how creative they can be until they try something new, something like this” (P4)

**Table 4: Collaboration**

Sub Themes	Evidences
Co-creation	“I’ve learned how to create art together” (P2) “It (painting) got better when others contributed also” (P3) “My colleagues agreed my contributions enhanced the designs” (P4)
Relations	“What a great way to spend time together” (P2) “I just let go and talked to others, free-talk, a rare opportunity for that” (P3) “It was fun working with others” (P4)

## 5 DISCUSSION

This section presents a discussion about the use of PD practices in collaborative art creation.

We can tentatively suggest that **Quality of life** seemed to improve based on the comparison of comments from Table 1 and Table 3. For instance, participants’ statements about low performance (P2) and tiredness (P3) have changed to positive evaluation



**Table 5: Potential iteration**

Sub Themes	Evidences
Self-performance evaluation	<p>“I’ve learned I don’t know how to paint” (P1)</p> <p>“I didn’t initiate the design, only contributed to what others have already created” (P4)</p>
Learning experience	<p>“I’ve learned about working with acrylic paints” (P1)</p> <p>“How to create art together” (P2)</p> <p>“Color mixing, imaginative thinking, creativity” (P4)</p>
Aim to improve	<p>“Next time I would cover canvas with white paint first” (P1)</p> <p>“I wouldn’t do anything differently” (P3)</p> <p>“I would initiate the concept and then welcome others to contribute to it”(P4)</p>
End result evaluation	<p>“Not really liked the end result” (P1)</p> <p>“Yes I did like it” (P2)</p> <p>“Didn’t like the result that much” (P3)</p> <p>“Sure, I look at the pictures and they depict what I imagined.” (P4)</p>

**Figure 2: Collaborative art-creation workshop in progress, Iteration 1.**

of experience such as “awesome” (P2) and “very nice” (P3) after the workshop. **Collaborative** aspect was appreciated more, and participants attributed more attention to it post-workshop: in Table 2 only one person mentions collaboration, while in Table 4 almost every participant had commented about co-creation and togetherness in a positive way. Pre-workshop Anticipations were modest

as we can see from Table 1. In Table 5 we then see an increased willingness to discuss self-performance and learning experiences in more detail, as well as to share more general emotions as Thoughts and Feelings in Table 3. Idea of **Iteration** and iterative approach in artistic practices was met very positively: Table 5 shows that participants also started to plan for the next session, mentioning their goals for improvements of their painting techniques and general approach to the creative process. It can be suggested that after the second or third iteration the evaluation of the end result might also shift to a more positive one.

We have also detected some limitations. For instance, iteration 1 was a productive way to pilot the organization, logistics and setting of the workshop. Iteration 2 could benefit from several changes. Since the initial sample of participants turned out to be quite small, expansion of the participation pool is needed so more qualitative data could be harvested and different opinions would be heard. After the end of the workshop, it became clear that video, or, at least, audio recording is needed to document insights from participants’ dialogues and self-reflections. Taking notes is also an option as a back-up for technological malfunctions. It would be also interesting to inquire more and ask participants to elaborate in detail on the end result: what are the reasons behind people positively evaluating the outcome and what are the reasons behind the negative evaluation of the same painting. Group-reflection as a methodology for gathering feedback should be also considered as a way as a shift from individualistic to collective paradigm.

## 6 CONCLUSION

Artistic practice mixed with Participatory Design opens a dialogue for a deeper understanding of artistic collaborations and has a potential of contributing to socially oriented academic research. At the moment, there is little research for this particular conceptual combination, but authors see a lot of potential for further studies and hence are encouraged to contribute.

The goal of this study was a preliminary exploration if the PD principles can be applied to artistic practices or if this approach