

Realist evaluation of an art-based intervention to enhance creative learning in an organizational setting

S.G.M. Verdonschot, A. Hofhuis, J. Meijer & A. Burggraaf

Foundation for Corporate Education, Utrecht, the Netherlands

Abstract: Organizations face ‘wicked problems’ that cannot be solved easily. Be it the problem of understaffing in healthcare organizations or the desire to promote learning for a sustainable society. Because of their complex and interconnected nature, these intricate questions cannot be resolved by a rational problem analysis and linear approach. Rather, these questions require a form of creative learning in which the given variables are questioned, and in which new solutions are developed that radically break with the existing way of working. Mechanisms that characterize creative learning comprise combination and reframing. The present study focuses on the way art and art-based learning can contribute positively to the process of creative learning. Its aim is to explore the way art can add value to the process of innovation in organizations. This is done by evaluating an art-based learning intervention that took place in a healthcare organization. In total, 8 participants took part in the workshop. Individual interviews, observations, and poster presentations are used as primary source of data gathering in this realistic evaluation. Results show that when people are open and curious, the interventions can contribute to positive emotions, defamiliarization, identification and reflection. The cognitive flexibility that can emerge thus, seems to be relevant for creative learning.

Keywords: Corporate learning, Creativity, Organisational learning, Workplace learning

Introduction

Learning with the intention of innovating in organizational contexts can be described as a form of creative learning (Ellström, 2002). This type of learning is necessary in order to work with the ‘wicked’ or intricate problems that are being faced, such as the problem of understaffing in a healthcare organization, or the desire to promote learning for a sustainable society of a group of collaborating schools in a region. Creative learning takes place when employees encounter unclear and puzzling situations, when they succeed in questioning implicit taken-for-granted premises and established definitions of problems and manage to transform these in order to create breakthroughs (Verdonschot, 2009). The process of creative learning, in which the given variables are questioned, and in which new solutions are developed that radically break with the

existing way of working, can be characterised as an uncertain process. Defining elements of this kind of learning are the processes of combination (see for instance Nahapiet & Ghoshal, 1998), experimentation (Thomke, 2003) and reframing (Nadler and Tushman, 1989). The present study aims to explore the role that art and art-based learning can play in stimulating this type of learning.

In the context of healthcare there have been experiments in which art is applied in order to improve the wellbeing of patients. And in the context of medical education, art is used in order to develop various skills of healthcare professionals. Live bedside music for instance can contribute to patients’ recovery after surgery (Van der Wal-Huisman, 2024). Next to that, in the Netherlands alone, eight out of ten medical faculties deploy a form of art in

their curriculum (Reijntjes et al., 2021). Most faculties collaborate with museums and use paintings as a way to educate observational skills and empathy, and there is evidence that structured visual arts curricula can facilitate the development of clinical observational skills (Mukundaa et al., 2018). These studies, however, focus on interventions developed for healthcare professionals or for patients. Less is known about the possible added value of art in order to improve the collaboration of other professionals working in healthcare or other contexts.

It appears that using art can be a stimulating way to improve learning in organizational contexts. Koenen, for instance, indicates that using art in organizational settings can help to slow down and to develop new perspectives on intricate questions (Koenen, 2007; 2012). Van de Boel (2023) argues that in the present time, in which organizations face complex questions, art can offer new metaphors and viewpoints that can help to break existing ways of working in order to develop new pathways. Research has been done in order to understand the possibilities of the way that art-based learning can stimulate reflective individual learning (Lutters, 2020 in: Hofhuis, 2023). Hofhuis (2023) conducted an explorative study to learn more about the way art-based learning interventions can stimulate a generative dialogue in a team of teachers. Hofhuis depicts art as a boundary object (Akkerman & Bakker, 2011) and found that art contributed to team members learning from each other's perspectives. The present study builds on the insights that can be derived from Hofhuis's study.

Tackling difficult issues in a smart way requires a certain kind of creativity that allows you to combine existing elements in a new way. This is known as cognitive flexibility (Ionescu, 2012). Our evaluation study aims to learn more about the extent to which an art-based learning intervention that took place in a healthcare organization can fuel the cognitive flexibility of the participants. In addition, the study focuses on finding out more about the internal processes that take place with participants who joined the learning intervention and context factors that cause this cognitive flexibility to occur. The three questions central to our study are:

- 1) Does the art-based learning intervention increase the participants' cognitive flexibility?
- 2) What kind of internal mechanisms take place in participants of the art-based learning intervention and how do these mechanisms contribute to the functioning of the intervention?
- 3) In what context does the art-based learning intervention, through the internal mechanisms, lead to increased cognitive flexibility?

Cognitive flexibility plays an important role in learning with the intention of innovating. This type of learning is

increasingly important for organizations. The evaluation study at hand helps to understand how art can be used in practical workshops in order to enhance cognitive flexibility. Furthermore, it adds to the present body of research by focusing on the learning of employees in relation to their improvement initiatives.

Theoretical framework

Cognitive flexibility

Art can be seen not only as a way to express creativity: it can also be the source of creativity. It can help develop new thoughts and discover other approaches to solve questions or clarify dilemmas (Koenen, 2021). Schein (2001) in his essay reflects on the role of art and the artist in organizational contexts. He explains that art and artists have the potential to broaden our flexibility of response. Many of our daily habits are in fact very stable, and that it is surprising, once we are seduced into improvising on these routines, how liberating and educational this experience can be. Art can shock or stimulate, and, by doing so, it can allow us to surface feelings that we may not have been aware of in ourselves. Incorporating those feelings and acting on them can make us, in the words of Schein, richer and more flexible human beings. Cognitive flexibility can be depicted as a property of the cognitive system. Examples include finding new solutions to a problem by switching contexts or tasks, easily adapting your behaviour when there is a new rule, or being able to create new knowledge (Ionescu, 2012). This property is based on the interaction of several cognitive mechanisms, such as executive functions, attentional mechanisms, and previous knowledge that respond to specific environmental demands, such as task demands (Ionescu, 2012). Unraveling the conditions that lead to the emergence of cognitive flexibility could help us foster creativity. (Ionescu, 2012). In the following sections the mechanisms and context factors that might play a role in the emergence of cognitive flexibility are elaborated upon.

Positive emotions

We expect that looking at art creates positive emotions that broaden participants' perspectives so that new perspectives emerge. This assumption is based on the broaden-and-build theory (Fredrickson, 2005). Think of the moment when you are in a museum with a friend, viewing a work of art together in a pleasant atmosphere. You might suddenly notice something new about the painting, or have a new thought. The idea behind the broaden-and-build theory is that experiencing positive emotions results in broadening one's thinking (broadening). This broadening can cause people to expand (build) their ideas and cause new perspectives emerge.

Association and defamiliarization

Participating in an intervention with art can, next to positive emotions, also trigger other internal processes that contribute to the cognitive flexibility of attendees. First, engaging with art can evoke images and associations. Those associations can help broaden thinking (Koenen, 2007). Something you hear in a piece of music for example can make you think of a completely different experience. Associations are linkages that arise intuitively, for instance via memories and encounters, rather than rationally (Lutters, 2020). Associations can help to find a new approach to an issue a person is struggling with (Koenen, 2007). Second, defamiliarization is a mechanism that could arise. Defamiliarization occurs when a person is presented something familiar in a different way, and, because of this new presentation, the person begins to view it differently. This different viewing can lead to new ideas (Gunn, 1984). Think of a dining table that, through the eyes of a child, turns out to be a little house. Art has the ability to slow down perception, making the world strange once again, and thus, cause defamiliarization.

Learning mechanisms identification and reflection

Lastly, we expect the learning mechanisms identification and reflection to take place during an intervention with art. All learning involves boundaries. Think of the moment in which a novice learns how to operate a machine in the manufacturing hall. Or the moment in which two teams have to collaborate. In these situations, the people involved experience boundaries. Between expertise and language for example. Akkerman & Bakker (2011) found that these boundaries have learning potential. Identification and reflection are two of the four potential learning mechanisms that can take place at boundaries. In identification, the exchange with others offers insight into how different practices differ from each other. This can cause renewed insight into one's own practice. Imagine a nurse and a geriatrician who discuss their standards, and tools at their disposal in order to contribute to the patient's quality of life. This conversation might lead to better understanding of their own craftsmanship and learning needs. Reflection is about the exchange of perspectives from different practices. Consider a German language teacher who is also the author of several novels. This person might look at classroom situations with a writer's perspective. And the other way round, the approach that he uses to write novels might benefit from the systematic way of working that he developed through his teaching and that he is used to deploying in lesson preparation. The dialogue between participants that is part of the intervention with art can cause these mechanisms to emerge (Hofhuis, 2023).

Context factors

We expect that participants who are curious and open to a new experience, can especially benefit from an art-based workshop (Dlouhy & Mitchell, 2009). Their open mind can evoke cognitive flexibility. Next to this, the extent to which participants see themselves as creative and artistic, might also influence their experience of the art-based learning intervention since creativity and openness are related to one another (Swaab, 2016). Lastly, time could also be a relevant context factor. When participants feel no rush or stress but rather the space to participate, we expect that the internal mechanisms can take effect.

Method

When evaluating an intervention, the focus is often on 'does it or doesn't it work', while reality contains so much more nuance. An intervention takes place in a particular context, and the people who participate each have a different character and each bring their own knowledge. Whether the intervention has a particular effect is strongly related to these differences. The experience of a person who comes in curiously will differ from the experience of a person who goes to an obligatory course that doesn't appeal to him or her. When an intervention has an impact, be it positive or negative, it is never only a consequence of the intervention itself. The specific circumstances and the participants themselves influence how the intervention works. This also means that an intervention often cannot be replicated one-to-one for a different context. The goal of a *realist evaluation* (Pawson & Tilley, 1997) is to understand how an intervention works, why it works like that, for whom it works, and in what context it works. A realist evaluation aims to learn more about the way interventions trigger certain internal processes with the participants of an intervention, and, together with contextual factors, lead to an outcome (Haggenburg-Mohammed, 2020). In this type of research, several predetermined hypotheses are central. Such a hypothesis consists of an expectation about the context in which the intervention takes place, the mechanisms triggered in the people who participate and the outcomes that arise. The hypotheses are called CMOs. (Context, Mechanism and Outcome). The present study aims to learn more about how an art-based intervention works based on some preconceived CMOs. The CMOs stem from literature and from the rationale behind the design of the intervention. Factors related to the context (C) that might be relevant relate to the extent to which participants are open to and curious for the experience, the extent to which they consider themselves to be creative and artistic, and the extent to which they have the time and feel the space to participate. Mechanisms (M) that are expected to play a role are positive emotions (based on Fredrickson,

2005), associations (based on Koenen, 2007), defamiliarization (based on Gunn, 1984), and identification and reflection (based on Akkerman & Bakker, 2011; Hofhuis, 2023). These contextual factors and mechanisms triggered by the intervention are expected to contribute to the outcome (O) of cognitive flexibility (based on Ionescu, 2012; Schein, 1994).

An art-based intervention

In a Dutch healthcare organization, various employees – nurses, medical specialists and staff– are working on improvement initiatives. For example, someone is committed to promoting person-centred care, and someone else took the initiative to strengthen interprofessional collaboration and learning among nurses and medical specialists. Some of them express the desire to look at their improvement initiative with different eyes, in order to take new steps. This prompted the design of an art-based intervention that took the shape of a half-day workshop. Eight artworks form the starting point for a dialogue about the questions that participants bring with them. Eight participants, each bringing an issue from their own improvement initiative, are invited to engage in a conversation about an artwork (Figure 1). This conversation took place in a small group, and it was facilitated with a specially developed viewing frame (see Figure 2) (Hofhuis, 2023). The center was cut out in order to see through, and the viewing frame contains four questions.



Figure 1. Looking at artworks through the viewing frame

In the next phase of the workshop participants worked with the other side of the viewing frame (Figure 3 and 4). At the end of the meeting, each attendee presents a poster with the

plans and thoughts that were developed during the session (Figure 5). Facilitation of the workshop was provided by the second author.



Figure 2. Viewing frame 1 developed by Hofhuis (2023)



Figure 3. Developing one's own story

Selection of participants

In total, 8 participants took part in the art-based intervention. Among them were the first and fourth author of the paper at hand. Six participants were employees of the healthcare organization: 2 nursing consultants, 1 medical specialist who is also senior manager, and 3 policy advisors. They were selected based on their willingness to join a workshop in which art is used to develop new perspectives. Each of them participates or initiates an

improvement project. All participants in the workshop participated in the evaluation study.

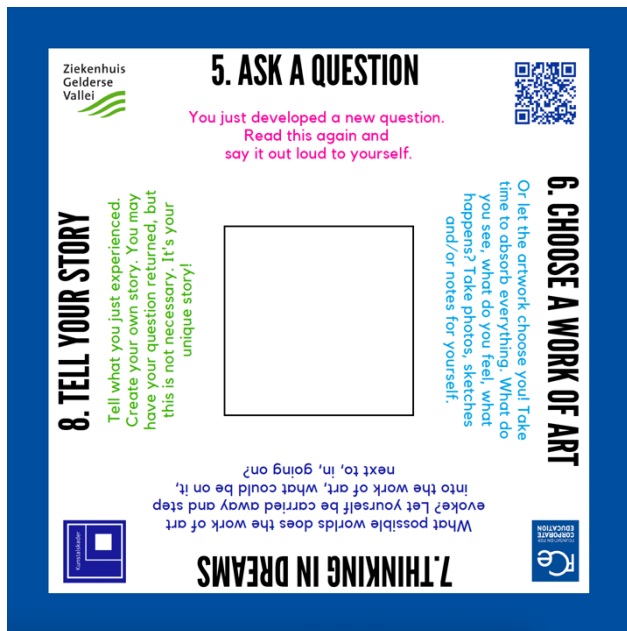


Figure 4. Viewing frame 2 developed by Hofhuis (2023)

Instruments

Data-gathering took place through individual interviews preceding the intervention, via observations during the intervention, and through a reflective assignment (poster presentation) as part of the workshop. The focus of data collection is to learn more about the contextual factors, about the mechanisms that are triggered by the intervention, and about the expected outcome.

The individual interviews took place via telephone, prior to the workshop session. Examples of questions that were asked are: What do you expect from the session that you'll join? How artistic do you consider yourself? For the participants these interviews had the function of an intake conversation to prepare themselves for the workshop.

For the observations a scoring scheme was made based on the CMO-hypotheses. The observation scheme contained indicators connected to all concepts from the hypotheses. Examples: an indicator for positive emotions is 'participant shows a smile', an indicator for context factor time is 'participant is in a hurry or needs to leave earlier', an indicator for curiosity is 'participant asks questions'. During the workshop observations were noted down.

The reflective assignment was part of the last part of the intervention. Participants were asked to make a poster that showed their new thoughts, ideas and plans that came up during the workshop in relation to their question. Each participant presented the poster to the group.

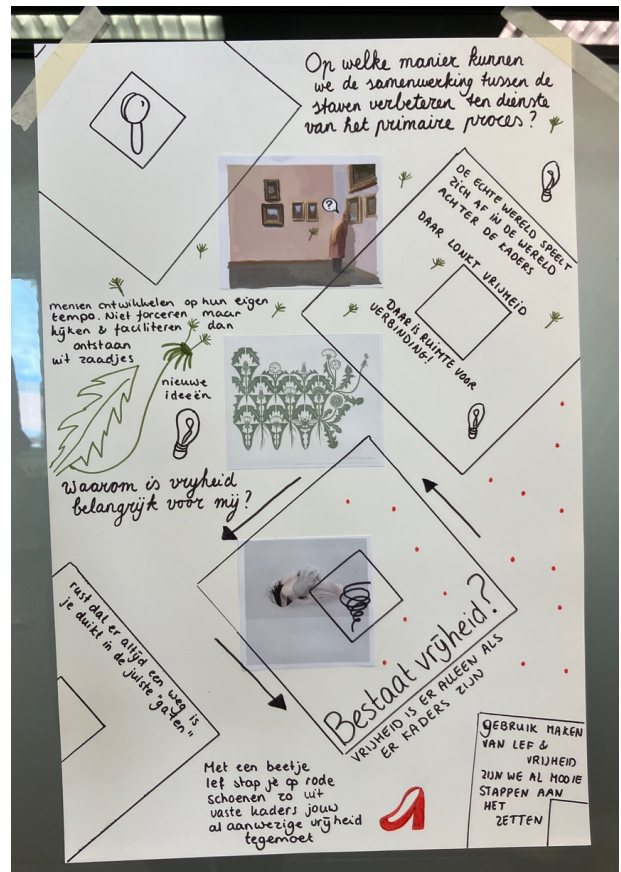


Figure 5. One of the posters that was presented

Procedure

The art-based intervention took place on April 22nd, 2024 and took three hours. For every individual interview a report was made based on the notes that were taken during the interview. The observations during the intervention were captured in the observation scheme. The poster presentations were recorded, and pictures were made of the posters. Prior to the workshop all participants received a welcome letter and a sketch book on their home address. They were invited to think of a question that kept them busy related to their own work or to their improvement initiative.

Data-analysis

All quotes from the interview reports, the entries from the observation scheme and the quotes from the poster presentation were collected in one overview. Then, the entries were coded using the concepts from the CMO-hypotheses (deductive qualitative data-analysis). Entries that appeared unrelated to one of the Context, Mechanism or Outcome factors were analysed to track down possible new patterns.

Results

Positive emotions

Both in the interviews and during the workshop, positive emotions were reported. In the interviews participants used words such as “fun”, “nice”, and “looking forward” when referring to the upcoming workshop. During the intervention they declared things such as “what a treat”, “it’s fun!”, “nice to be thinking together”, and “we are so complementary!”. Enthusiastic voices also gave the impression that positive emotions were experienced. These emerged especially when participants were deep in conversation about the artworks, and also in between different parts of the session.

Negative emotions were also present. In the interviews one participant was unsure about her creativity and she wondered whether this would be a problem during the meeting. Another participant seemed to be frustrated about the urgent question that she faced in her improvement initiative. Negative emotions were also experienced during the meeting. For instance, some participants were afraid of not meeting expectations, and some doubted whether the question they brought was too big. One participant also experienced irritation about an artwork and disappointment because there was not enough time to finish a conversation.

Association and defamiliarization

While looking at the artworks, many associations were shared in the conversations. This is shown by comments such as “Oh, I see a smiley face... and I hadn't seen that before!”, “I hadn't looked at it that way.” An artwork that depicts a tree made a participant think of her daily run, another participant saw red shoes and associates that with having guts, and again another participant linked a black part of a painting to her own blind spots.

Defamiliarization took place during the workshop as well. Participants looked intently at the artwork. One participant says: ‘I never look at trees’ and explains that now that the tree is removed from its ordinary context – the forest – she does pay attention. Someone looks at a work of art upside down. And in the poster presentations, a participant says that the art has created distance from the usual words she uses to describe the issue.

Identification and reflection

During the dialogues between participants, identification took place in three ways. Firstly, participants investigated similarities and/or differences in what they notice in a work of art by explaining their own view. One participant said: "You say compartments [when describing what you see], but actually I see layers." Secondly, by talking about the artworks, the participants formed a clearer picture of their own views, and at some moments participants felt

confronted with their own less positive sides. This is shown by comments and questions such as: "Why do I feel this?"; "Am I ignoring black boxes?", and "Apparently, I have stereotypical ideas". Thirdly, the dialogue made participants more aware of their own values and ideas. This was reflected in comments such as: "I try to think about my perspective on this", "I'm not usually so aware of this", and "What makes this so important to me?".

Reflection took place during the dialogue when participants were actively listening to each other and took each other's perspectives: “Oh, yes! How funny, I hadn't seen that yet”. They asked each other questions (e.g. “How do you experience that?” or “What about you?”). Furthermore, we saw participants interacting in a loose and playful way, combining insights and observations that came from the conversation about the artworks with the work-related questions that they came in with. Someone suggested: “This seems to fit into your story”, and someone else asked: "What would this be like with your issue?". “How would this fit into your problem?”.

Contextual factors

In the intake calls all participants appeared to have positive expectations of the workshop. Three participants had very concrete expectations such as “a solution” or “new tools”. Others formulated less well-defined expectations (“small steps”, “awareness”). They all showed curiosity (e.g. “whether we can discover something new” or “how our questions might transform during the workshop”). Openness was seen during the intervention both verbally and non-verbally. When a participant shared a perspective, others would nod or make assenting noises. One of the participants described herself as a rational thinker and told that she had challenged herself to be open to a different approach. She explained that they are dealing with difficult issues, such as staffing shortage, and that the present way of dealing with this won't offer satisfying solutions. That made her want to try something new. Curiosity was seen during the workshop in two ways: after a completed part of the session, participants walked to other artworks to point out something to each other (e.g. “I also liked this one!”); and they asked questions about the artworks (e.g. “Is this piece a photograph or a painting?”). There were short moments in which some participants were busy with something that wasn't directly related to the workshop (e.g. writing in an agenda or typing on their telephone).

With respect to their own perception of their creativity, the telephone conversations show different views. Two participants share their enthusiasm for creativity. For instance, one of them uses “images to lighten up the boring office environment”. Three participants said that they see themselves as creative in their thinking, but not per se in making things (“I do get creative with seeing possibilities

or with language”). Two participants didn’t see themselves as creative or artistic (e.g. “I find it difficult to go off the beaten track”). When making poster presentations (last part of the workshop) all participants used colours and different shapes (see for example Figure 5). No differences were seen, neither in the shape of the posters, nor in the type of insights, between participants who considered themselves as creative and the ones who did not.

With respect to time and space: the workshop was held in a room in another building than the main building. Participants came by foot. They noted that they didn’t come here often. Some had never been here before. One of the participants had to show up earlier to fix some unexpected logistics. This meant that she had to reschedule her other work. During the workshop participants seemed to surrender to the planning and facilitation that was given, not being concerned with time. After the meeting, participants seemed to return to reality, looking at the clock again, for example, and discussing their further plans and work-related activities for the day. All participants engaged actively and concentrated during the workshop.

Results on the outcome: cognitive flexibility

Looking at art with the viewing frames allows participants to look at their own issue from multiple and also new perspectives. One participant, for example, came up with the question: how can I involve nurses in interprofessional collaboration? Prompted by a painting, she wonders aloud: “do the nurses necessarily have to *get in* to participate?” At first, she saw sharp fringe lines of who was and was not involved in interprofessional collaboration, but now she realises that these lines might be running differently and that each person can participate using their own rhythm as a starting point. Perhaps rhythm looks different for nurses than for, say, medical specialists, she observed.

At the end of the workshop, some participants indicated that they experienced that no specific solutions emerged, but rather thoughts that could help to move in a different direction or try a new idea.

More than half of the participants started to approach their own issue differently (“Do I actually want this?”, “Does freedom even exist?”, or “Then how do I see this movement?”). Participants also became aware of assumptions they had made in formulating their issue. By paying attention to the edges or shadows in an artwork, participants got a different idea about their issue or how they want to proceed with it.

Participants experienced calmness and a sense of space at the end of the workshop. This is expressed differently by everyone. For example: “[it gives me] peace that there is always a way”; “[what we did today is] to create space to look without judgement”; “space for learning and development”, “[I need] space to look outwards”;

“everything has its own rhythm (...) and everyone who dances, ends up dancing along”. The latter refers to one of the artworks that depicts dancing figures (Figure 6).



Figure 6. Participant engaging with a piece of art

Conclusion and discussion

Does the art-based learning intervention increase the participants' cognitive flexibility?

Working with art does not lead to ready-made solutions to the issues brought by participants of the workshop. An intervention with art can, however, contribute to people's ‘mental agility’. They develop new ideas about an issue they brought along beforehand or translate an experience they gained during the meeting to their work context. A playful looseness emerges in participants with which they combine observations and thoughts arising from engaging with art with their own and others' issues.

At the end of the workshop participants reported calmness. This seems to be a type of cognitive flexibility that is not about the content of the issue but has to do with the search process. It seems that letting go of the urge to influence or change something is a big part of the peace that is experienced. This becomes evident from comments such as “the wind cannot be influenced” and “teams know best what is needed, we only have to give space”.

Interesting in this respect is the parallel with the process participants themselves went through during the workshop. In the meetings, participants gain first-hand knowledge (Kessels, 2005). About a personal new insight, one participant laughingly observes: “I could have got this insight from a cheesy management book as well”. And at the same time, it is noticeable that there is value in arriving at a particular line of thought yourself. This points to an

autonomous way of learning, in which participants proactively shape their own learning experience. The reflection assignments seem to play an important role in this. Van Woezik et al. (2023) confirm the idea that art-based interventions stimulate self-directed learning and thereby can bring about positive outcomes such as ownership and authenticity.

What kind of internal processes take place in participants of the art-based learning intervention and how do these processes contribute to the functioning of the intervention?

During the meetings, participants experience both positive emotions (such as cheerfulness) and negative ones (fear of making mistakes). Both seem to be relevant and contribute to valuable outcomes. An email we received afterwards revealed that one of the attendees had taken the initiative to organize a new workshop with art for her own team. This fits with the broaden-and-build theory that states that broadening leads to building.

A notable discovery is the role of negative emotions as an internal process that contributes to cognitive flexibility. During the intervention, participants become aware of their own deficits and blind spots (one participant sighs, “apparently I have stereotypical ideas”). The negative thoughts seem to make participants aware of where they get stuck and can grow. It could be that this opens up the way for positive emotions.

The art forms evoke associations with issues from personal life and work, as well as defamiliarization, and this may contribute to a broadening of outlook. By engaging with art, participants learn to think outside their assumptions and habits. For example, they view a work of art upside down. These unusual perspectives may not only broaden physical perception, but also open up new ideas and possibilities. Presenting the posters, one participant says that art has created distance from the usual words she uses to describe the issue. The issue itself becomes unfamiliar, so to speak, allowing something new to be discovered in it. The two learning mechanisms identification and reflection were observed. Most participants posed questions to each other and to themselves. The artworks seem to fulfil a role of boundary object. Such a boundary object allows attendees to connect their own world (e.g. their own view or opinion) to that of others.

In what context does the art-based learning intervention, through the internal mechanisms, lead to increased cognitive flexibility?

During the telephone interviews prior to the workshop, participants gave different answers to the question of whether they consider themselves to be creative. Contrary to expectations, participants who considered themselves creative seemed to go through a similar development as

those who do not. All were open and curious about what art can bring them.

Many participants enter the workshop room with openness and curiosity. Some participants seemed rushed or still busy with something else from the working day, but they too seemed to become absorbed in the experience after a while. Initial haste, or the busyness of the working day, does not seem to have too much impact. Participants seem to experience a focus that makes them forget their surroundings and other plans, resembling a state of flow (Csikszentmihalyi, 1990). They are completely absorbed in the activity they are engaged in. Some participants for instance only look at the clock again after the workshop ends and suddenly remember that they have other plans for the day.

The present study evaluates an art-based intervention to enhance creative learning. The intervention took place in a healthcare organization and was joined by 8 participants. Although the results show that art, in a specific context, can trigger internal mechanisms in the participants that lead to cognitive flexibility, an obvious question is whether these results can be generalised to other contexts and to other organizational settings. The results from the current study encourage us to start experimenting with art-based interventions in other organisations as well and find out the extent to which this can enhance creative learning. It would be interesting to invite professionals to bring a ‘wicked problem’ that they encounter in one of their improvement or innovation initiatives to the workshop, and to learn more about the way their perspectives on this issue develop as a result of the mechanisms that are triggered by the art-based intervention, and to find out whether the new perspectives lead to breakthroughs in the working practice.

Correspondence

Suzanne Verdonshot, Foundation for Corporate Education, Maliebaan 45, 3581 CD, Utrecht, The Netherlands, sverdonshot@kessels-smit.com.

References

- Akkerman, S.F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of educational research, 81*, 132-169.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.
- Dlouhy, S., & Mitchell, P. (2015). *Upcycling sheltered workshops: A revolutionary approach to transforming workshops into creative spaces*. Ohio University Press.
<https://doi.org/10.1080/13601440802659452>

- Ellström, P. E. (2002). Integrating learning and work: Problems and prospects. *Human Resource Development Quarterly*, 12(4), 421-435.
- Fredrickson, B.L. (2005). Positive emotions. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 120-134). New York: Oxford University Press.
- Gunn, D.P. (1984). Making art strange: a commentary on defamiliarization. *The Georgia Review*, 38(1), 25-33.
- Haggenburg-Mohammed, M. (2020). Een kleine introductie tot realistisch evalueren. *Sociaalbestek*, 20-23.
- Hofhuis, A. (2023). *Kunst als boundary object ter bevordering van samenwerking in nieuwe ontwikkelteams op Montessori College Arnhem* (Publicatienr VBS:2:151582) [Masterthesis Aeres Hogeschool], HBO kennisbank.
- Ionescu, T. (2012). Exploring the nature of cognitive flexibility. *New ideas in psychology*, 30(2), 190-200.
- Kessels, J. (2005). *Tweedehands kennis*. Den Haag: HRD Fonds Performa.
- Koenen, E. (2007). *De Kunst van leiderschap in tijden van verandering, een managementprentenboek*. Boom.
- Koenen, E. (2012). Iets boven woorden brengen: in gesprek met Bart van Rosmalen. *Tvoo (Tijdschrift voor Ontwikkeling in Organisaties)*, 03.
- Lutters, J. (2020). *Art Based learning. Handboek creatief opleiden*. Coutinho.
- Mukunda, N., Moghbeli, N., Rizzo, A., et al. (2019). Visual art instruction in medical education: a narrative review. *Med Educ Online*. 24(1): 1558657.
- Nadler, D. A., & Tushman, M. L. (1989). Organizational frame-bending: Principles for managing reorientations. *The Academy of Management Executive*, 3(3), 194-204.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital and the organizational advantage. *Academy of Management Review*, 23(2), 242-266.
- Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. Sage Publications.
- Reijntjes, M., de Ruiter, P., Linsen, L., et al. (2021). De plaats van kunstobservatie in de opleiding geneeskunde in Nederland. *TSG Tijdschrift voor Gezondheidswetenschappen*. 99 (75-79).
- Schein, E.H. (1994). *On dialogue, culture, and organisational learning*. *Organizational dynamics*, 22, 40-51.
- Swaab, D. (2016). *Ons creatieve brein: hoe mens en wereld elkaar maken*. Atlas Contact.
- Thomke, S. H. (2003). *Experimentation matters: Unlocking the potential of new technologies for innovation*. Boston: Harvard Business School Press.
- Van de Boel, S. (2023). *Ontsporen: kunst en filosofie als trigger voor systeemverandering*. Lecturis.
- Van der Wal-Huisman, H. (2024). *Adding value to care through live bedside music*. Thesis University of Groningen]. University of Groningen. <https://doi.org/10.33612/diss.856550250>
- Van Woezik, T., Stap, T., Van der Wilt, G.J., Reuzel, R., & Koksmas, J. (2023). Seeing the other: how residents expand their perspective by learning with the arts. *Journal of Graduate Medical Education*, 50-58. doi:10.4300/jgme-d-22-00140.1
- Verdonschot, S. G. M. (2009). *Learning to innovate: A series of studies to explore and enable learning in innovation practices*. Doctoral dissertation, University of Twente: Enschede.
- Walker, D., & Nocon, H. (2007). Boundary-crossing competence: Theoretical considerations and educational design. *Mind, Culture, and Activity*, 14(3), 178-195.
- Yenawine, P. (2013). *Visual Thinking Strategies: Using Art to Deepen Learning Across School Disciplines*. Harvard Educational Press.