The power of art: Examining the long-term effect of arts-based interventions in education and working life

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Abstract

This article explores the long-term impact of a one-year, 160-hour, part-time University course, exemplifying how art-based interventions help foster competencies in participants inside working life and participants out of work. The course was ambitious with its threefold goals: "Increased creativity and acquisition of new skills," "Cultivating personal and leadership character" and "Using arts-based learning approaches when conducting development projects at suited workplaces." Data for this study is based on a mixed-methods approach, using testimonies and results from 34 students' exam papers, closure questionnaires, and a long-term follow-up survey 3-6 years later. Most participants, employed or unemployed, returned to working life with renewed motivation and zest. These results, showing lasting improvements, demonstrate the power of art.

Keywords: Long-term effects, arts-based learning, development projects, personal and leadership development, education, and working life

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Worldwide, people need to be creative, readjust, and rethink ways to keep themselves and their lives together. In working life, this translates into tomorrow's volatile workplaces demanding personal qualities and social skills, such as "the ability and willingness to learn, collaborate and change" (STAMI-rapport, 2018:19, p. 9). Workers, those with a workplace affiliation or at present out of work, need to think anew when approaching today's labor market and its changing requirements. They need to have or develop the ability to find solutions, be innovative, create new undertakings, transform job assignments and work tasks, develop new skills, adjust their focus, and tailor their competence to present and future demands (NOU 2015:8, 2015).

Closer collaboration between working life and education is crucial to bring about such a shift. This paper suggests that arts-based interventions used in education and workplaces can leverage this form of cultivation. We are aware of studies that have examined the impact and potential of integrating the arts and arts-based learning approaches into educational contexts (Bamford, 2006; Cahnmann-Taylor & Sanders-Bustle, 2020; Goldman et al., 2016; Hardiman et al., 2014; Seifter, 2016). A number of these studies have measured the outcome of using different arts-informed pedagogies in short-term training sessions two to four months after the intervention.

This study, however, examines the long-term results, 3-6 years after finalizing the Creative Communication (CC) course at Oslo Metropolitan University (OsloMet), a course using arts-based intervention to foster some of NOU's (2015:8) required competencies in participants inside and outside of working life. The main purpose of this study is to determine if arts-based approaches used to explore opportunities, acquire new skills, and conduct innovative learning approaches in suited workplaces had a long-term effect on the participants working life situation. We are not aware of other comprehensive studies of the long-term effects several years after a university course that focuses on creative work, personal and leadership development, and conducting development projects at workplaces.

One main hypothesis guides the research in this paper:

> A university course, including training and experience with arts-based learning approaches and workplace development projects, can enhance creativity, cultivate personal and leadership character, and affect the ability to think anew inside and outside of working life.

We aim to: (a) present the idea, build-up, and structure of the CC course; (b) identify challenges that arose due to the working situations of the participants; (c) share and discuss the long-term outcome 3-6 years after the course.

The argument is that a multimodal arts-based education can foster a more holistic and human (empathic) focus on co-creating the future in inclusive and democratic ways for those who embrace it. A combination of qualitative and quantitative approaches was used when comparing the differences between feedback given in closure questionnaires and results from a long-term survey.

Theoretical frameworks

Arts-based learning approaches

Several researchers have emphasized that learning through the arts can help tacit knowledge emerge and bring forth transformational insights (Ibbotson & Darsø, 2008; Scharmer & Kãufer, 2010; Springborg, 2014; Taylor & Ladkin, 2009). The arts touch our

feelings and humanity and draw in ethics and learning depth. A chapter in a recently published book furthermore presents four cases that demonstrate how the arts can "be a gateway through which we can "escape" the limitations of our mental models and make us aware of new perspectives and new solutions" (Darsø & Meltzer, 2020, p. 274). Arts-based learning, founded on experiential and exploratory learning processes, links emotions and sensations to cognitive understanding. The purpose is not to create art nor to educate new artists; rather, it is to renew and develop the competencies needed in education and working life. Tacit knowledge may emerge via or through the arts, through exploring themes of perceived challenges, revealing unthought-of possibilities and solutions.

Arts-based learning approaches are gaining interest as a creative exploration tool in many areas. Coppola et al. (2017) used arts-based learning experiences in a university occupational therapy education to demonstrate a range of benefits, including improved observation skills and perspective-taking. Van Katwyk and Seko (2018) used collaborative art-making with youths to redefine the definition of resilience, exploring their conceptualizations and experiences of deficit, risk, and adversity. Coholic et al. (2012) studied the advantages of an arts-based experiential group program for Aboriginal women in Canada's urban community. Through the arts, the women identified and explored their feelings and experiences, developing their strengths and improving their ability to be creatively and enjoyably mindful. Sethi (2012, p. 87), another Canadian researcher, used arts-based methods to "unpack the ways in which the 'other," though a separate entity, also is a reflection of my self (selves)," arguing that such rethinking is particularly helpful in research that intends to facilitate social change.

Seifter (2016) delivers proof of impact when using the arts as a tool to spark creativity in science education by integrating hands-on-arts-based work into science, technology, engineering, and math (STEM) training. A British school program, Creative Partnerships (2010), aimed to foster innovative long-term partnerships between schools and creative professionals. A branch of this program connected creative learning and work-related/vocational learning agendas in secondary schools, seeking to "equip students with the skills to embrace change, implement new ideas and develop an understanding and awareness of business practice" (Jeffery, 2005). Critical factors for success, impact, and sustainability were a close collaboration between school and workplace, involvement of multiple stakeholders, planning for progression, and meeting the needs of both learners and businesses.

Leadership and personal development

According to Crossan et al. (2016), people in all parts of society can carry out leadership acts without holding a leadership position. They claim that promoting leadership development across all disciplines requires the *cultivation of character*, as "character supports both the position and disposition to lead" (Crossan et al., 2016, p. x). They emphasize the importance of self-awareness, reflecting on actions over time, and adjusting one's approach. Reflecting on action requires four questions to be addressed: Who am I? Who am I becoming? What do I want to be? What am I going to do to become what I want to be? (Crossan, 2016, p.184).

Scharmer and Kãufer (2010) refer to the vast challenges we face in our time and ask what it takes to innovate and think anew. They argue that every leader, actor, or group has, like an artist in front of a blank canvas, a choice to repeat patterns from the past or connect to their deeper intentions and explore the emerging future (Scharmer & Kãufer, 2010). If we are to learn and act from the future while being shaped, we need to tune ourselves in and ensure we act from our highest future potential. We need, according to Scharmer, to be in contact with the source of our inner understanding, creativity, and authority. In this process, we have to ask ourselves the following questions: Who are we? Why are we here? and What do we want to create together? An exploration of these questions via the arts is highly relevant and meaningful.

Content and context

Background: The Creative Communication Course

Creative Communication was a tailor-made, fee-based, continuing education program (30 ECTS) developed as a collaborative project between Oslo Metropolitan University (OsloMet) and Arbeidssamvirkenes Landsforening (ASVL), an employer's federation of 220 Norwegian companies providing services to people who are out of work. The federation members provide work assessment, employment services, career counseling, job training, and sheltered workshop activities. The main goal of the member companies is to reduce the number of receivers of social security and return as many people as possible to activity, education, or work.

However, the member companies were under intense and constant pressure to produce results, ASVL acknowledging that the managers and employees needed new competencies. They knew that they were good at identifying their participants' resources but did not have the tools they needed to get participants back to work. ASVL saw the need to think differently and develop new tools and methods to support greater occupational rehabilitation in their member companies.

An important reference and inspiration for launching the CC course was Værket, a community service center in Aalborg, Denmark, and its results (Meltzer, 2009). An annual survey in 2008 showed that almost 50 % of participants started work, education, or took part in work-oriented services, increasing their chances of employment after a stay at Værket. The results from two comparable workshops were just 20 %. Participants at these centers were long-term out of work who were motivated to change and who acknowledged their need for personal growth and support to create a new life and return to work or education. Værket's approach differed from the other centers. Each week, the centre alternated between teaching and workshops, with participants being involved in creative activities and arts-based learning as part of the rehabilitation process. The participants processed their psychosocial challenges through the arts in these workshops, led by an art therapist, thus giving them a sense of mastery and control.

Our joint (OsloMet and ASVL) working hypothesis was to examine whether arts-based learning approaches could facilitate change and development in people, irrespective of whether they were employed or out of work. This hypothesis was inspired by a study tour to Værket in 2008 and their results. The initial course idea was to provide ASVL and similar workplace managers and employees with new artful tools to stimulate change. The CC curriculum proposed participation in artistic activities to increase creativity and cultivate new skills. Arts-based learning approaches were introduced as a methodological tool to allow new possibilities, reveal fresh perspectives, and prevent burnout. CC participants could, through the arts, develop their leadership character by addressing themselves and their way of being, and could, by implementing transformational development projects in their workplace, also grow as professionals. An essential course admittance requirement was that CC contenders were interested in creative work and artistic processes, the study plan informing applicants that the course could be personally demanding.

An interdisciplinary course development

The course program was created as a close interdisciplinary collaboration between the field of art and academia, drawing on the broad experience and methodological training of two practitioners, Associate Professor Eva Schwencke and Professor Cecilie Meltzer. Schwencke was trained within education and sociology and had extensive practical knowledge and skill in vocational pedagogics, action research, and experiential workplace learning. Meltzer was educated within the arts, art therapy, and special needs pedagogy and worked as a self-employed artist, art therapist, and teacher for many years. Despite different academic and

practice backgrounds, they fostered a transdisciplinary approach, working together throughout a year to produce the CC course program across and beyond their prior work experience and academic areas, inspiring and encouraging one another at their monthly meetings. Their interdisciplinarity and close collaboration became a great strength in implementing the CC course. In their practice of improvisational teaching, course content and focus were adjusted and adapted to that which took place along the way.

Course program, structure, and content

The CC program was initially designed as a two-module, one-year, part-time course centered around three main goals: Enhancing creativity and acquiring new skills, cultivating personal and leadership character, and using arts-based learning approaches in conducting development projects in the workplace. Equal time was given to each goal. A total of 160 hours of training, divided into 8 units of 3 days, revolved around individual and group viewpoints. The course curriculum was expanded with an additional module that accentuated organizational and societal perspectives. This module aimed to enhance and further anchor activated student development projects in workplaces. This part of the course was, however, for several reasons, never put into practice. Only the first two course modules are therefore described in this study.

The CC students were offered hands-on experiences of different arts-based learning approaches and follow-up lectures presenting the underlying theory. They worked with paint, clay, creative writing, drama, bodywork, and inquiry and took part in a longitudinal painting project in which they repeatedly returned to the same canvas at each gathering throughout the year to add pictorial comments to their felt personal and leadership identity. Through creative work and arts-based learning, the CC participants experienced developing their personal and leadership character. The writing of learning journals and creating daily drawing logs was also used to stimulate their reflexivity and weave the course's parts together.

Many of these arts-based activities interlocked and ran as a coherent body of experience. The following example from the first gathering demonstrates how different exercises could be joined to form a holistic process. Several CC participants, being non-artists, expressed uncertainty concerning their lack of experience in working with new creative media. Their feedback made it necessary to address feelings like lack of mastery and performance anxiety. The lesson was to sculpt clay figures as portraits of their inner critical voice. Afterwards, and in pairs, they shared experiences related to the process and how they felt addressing these parts of themselves.

These sharings were followed by an arts-based inquiry, where they, through free-flow writing, gave the sculptures an independent authority with a voice of their own. Here, and to reveal something beyond their intellect, the students were encouraged to be introspective and mindful and write down any bodily sensation, feeling, or reaction that occurred. Later, they were free to find a place for their clay figures in the classroom or somewhere on campus. The intention was to examine the distance they felt in need of to avoid the "interference" of their figure's critical voices. If they, however, continued to feel the presence of their "critic," the students could move their sculptures further away to be more at ease.

After this, they painted the ugliest picture they could imagine based on colors and forms they perceived as unpleasant and hideous. In the subsequent conversation with a partner, they exchanged paintings, pretending that their partner and not themselves was the creator. The new "owners" were free to be inventive and use their fantasy when describing what they had done and their experiences from the making. The actual owner of the painting was encouraged to ask open, curious questions, exploring the image as if they saw it for the first time. Log writings were followed by a final vernissage enabling the students to share experiences from the process.

These initial and closely interlocked exercises, involving several different media, came to represent a breakthrough for many students, experiencing a pause from their performance anxiety and sense of right or wrong. Often a lot of energy and humor emerged when painting with colors they previously perceived as awful. Likewise, taking ownership of someone else's painting brought forth new perspectives and resources in both participants, sometimes transforming elements once seen as ugly into something of value. As we noted above from Scharmer and Kãufer (2010) and Crossan et al.'s (2016) suggestions, these parts of the course addressed questions such as "Who am I?" or "What do I want to be?" In these sessions, the students also learned the difference between art-based exercises for self-development and arts-based well-being interventions for workplace development projects. Several articles and book chapters describe some of these activities in depth (Darsø & Meltzer, 2020; Meltzer, 2016, 2019, 2020; Meltzer & Schwencke, 2019)

Development projects

Conducting development projects in workplace settings has been an integral part of all educational programs at the Department of Vocational Teacher Education at Oslo Metropolitan University. Development projects provide the competencies that future education is required to develop (NOU 2015:8, 2015) and reflect the EU's definition of entrepreneurship (European Commission, 2011). Andersen and Schwencke (2020) describe development projects in teaching or working life as problem-oriented, unique, one-time collaborative work that is time-limited and results-oriented. Perceived challenges in these learning situations have the potential to be resolved by exploring, analyzing, and developing the theme. This learning approach requires using knowledge from multiple issues or topics, not just one subject at a time. It is also crucial to create development projects that are real-to-life and to see what is taking place in a workplace setting. A deeper understanding of the field is founded on self-experience, recognizing the correlation between what takes place on courses and that practiced in working life (Andersen & Schwencke, 2020).

A compulsory requirement at the CC course was that students planned, documented, and conducted a development project using arts-based approaches at their current or a suitable workplace. Participation at the course required that the workplace freed employed students from some work responsibilities to plan and follow course-related assignments and implement CC student projects.

Student projects were required to address the workplace organization's need for change and development, be well-founded in the companies, be valuable to them, and have a lasting effect (Andersen & Schwencke, 2020). It was, therefore, important that the CC students anchored their projects in and amplified the values of the workplace. This was achieved through written agreements with management. Project themes and goals were formulated together with workplace leaders, colleagues, partners, and course participants, art-based learning approaches being used by CC students to promote workplace collaboration and create arenas for development and mastery in working life. Creating predictable frameworks, increasing workplace participant awareness of their resources, and strengthening their sense of identity were three key focus areas of the project work. CC students could work together on the projects, supervision being provided at each campus gathering.

Methods

Participants

There were 34 CC participants across the 4 courses (11+11+6+6), 3 men and 31 women, aged between 30 and 60 (Table 1). Their occupational backgrounds differed but were primarily health and social work, the creative disciplines, and pedagogics. A few had vocational qualifications, and 5 had additional training as art therapists. The CC participants

fell, irrespective of this, into two distinct groups. Eighteen participants had a workplace affiliation as managers or employees, and 16 were out of work during the course.

Table 1. Course participants, Creative Communication				
	All **N: 34**	**Managers** **N (%)**	**Employees** **N (%)**	**Out of work** **N (%)**
Position		7 (21)	11 (32)	16 (47)
Age (mean)				
30-40	2			2 (6)
40-50	17	3 (9)	8 (24)	6 (18)
50-60	15	4 (12)	3 (9)	8 (24)
Gender				
Females	31	5 (15)	11 (32)	15 (44)
Males	3	2 (6)		1 (3)

**Table 1. Overview of the course participants work affiliation**

The participants with a workplace affiliation were managers, supervisors, and advisors in companies that provide services to people out of work, teachers in schools, managers or employees in ordinary workplaces, and a few self-employed artists. These participants communicated a need in their work for revitalization and new ideas. Some, who had experienced low motivation and joy, hoped the course would give them enthusiasm and prevent burnout. The development projects allowed them to explore opportunities, acquire new skills, and establish innovative learning approaches in their current jobs. Their workplace paid the course fee for most of these participants.

The original idea was that course participants would be ASVL member company managers and employees. People out of work would be involved through CC students' workplace development projects. Therefore, the 16 course participants who were unemployed, temporarily out of work, or furloughed due to downsizing, career shifts, illness, or burnout, represented a change in our original intention. Many of these participants had the course fee covered by the Norwegian social welfare system (Arbeids- og Velferdsetaten – NAV) as a part of state-funded re-education and retraining. NAV endorsed the course's work-oriented activities and implementation of development projects as a form of support and preparation for further education or working life.

Thirty of the 34 CC students answered the closure questionnaire. Twenty-eight former CC participants answered the long-term survey after 2 reminders, 1 response being a blank form. The blank form, missing scores in the questionnaire, or lack of feedback from non-responders are excluded from the statistics.

Design

The data used in this study were based on CC students' feedback collected from 4, 1-year CC courses conducted between 2009 and 2012. Short open-ended feedback was collected after each gathering providing feedback on the ongoing learning process. Exam project reports, reflective essays, and closure questionnaires were obtained at course closure. The students' exam papers gave more comprehensive and in-depth information on their development projects. The data in this study also includes responses, provided via the feedback platform Netigate, from a long-term follow-up survey conducted in 2015 by ASVL. The course closure questionnaires and the ASVL survey, which measured the long-term effect, were more extensive. They contained closed and open-ended questions, generating descriptive data for all variables. A mixed-methods approach was used, both quantitative results and reflective data being gathered and analyzed. The results were semi-anonymous, organized into selected groups, all questionnaires and surveys being semi-anonymous.
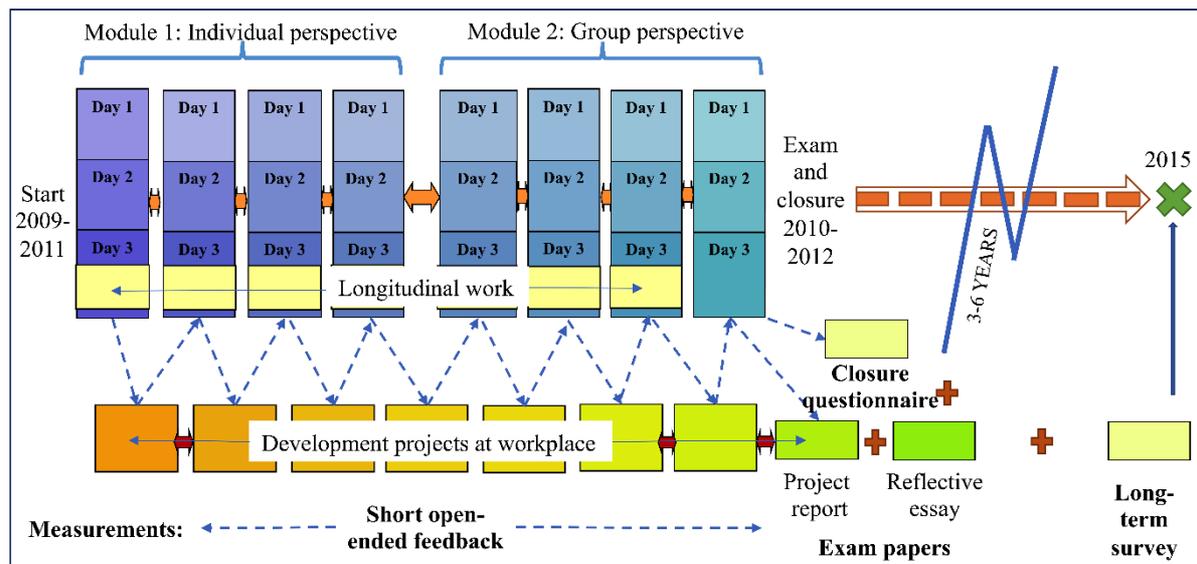
Figure 1. Creative communication course study design[i]

Measurements

The students' *exam papers* comprised a project report and an essay where they reflected on their process when conducting their projects. These papers add valuable and necessary background information on the use of arts-based interventions in leading and implementing development projects in workplaces. The exam papers were pass/fail assignments. We had the students' permission to analyze their papers after they had received their exam results. These reports and reflective essays provided a broader understanding of the challenges some students experienced and in-depth knowledge of the workplaces, project participants, desired focus, methods used, and results.

The *closure questionnaires* were handed out at the end of the course. The questionnaire was extensive, asking for feedback on the participants' previous education, work experience, and workplace affiliation. The participants used a four-point Likert scale from "none," "a little," "considerable" to "a great deal" to respond to questions on their prior experiences with creative work, personal development, and project work (Table 2 & 3). The questionnaires also asked for detailed answers on course content, the use of arts-based learning approaches, and their personal growth as learners and project facilitators. The participants addressed the course's learning objectives, pedagogical methods, the balance between the different parts, and their perceived learning outcome when facilitating and implementing their development projects. Most responses were given using a Likert scale ranging from "poor," "moderate," "good" to "excellent". They were encouraged to provide descriptive data for all variables.

The *long-term survey* sought to measure several outcomes 3–6 years after participating in a CC course, the survey's eleven main questions being answered using a numerical Likert scale, this capturing the extent to which the CC course had impacted their creativity, leadership, and working identity, sense of self, and work situation. The participants' scores were given on a scale from 1 (poor) to 10 (excellent) for the 11 questions listed in Table 4. The survey also asked for descriptive data for all variables.

Analysis

The answers in Table 2 from the closure questionnaires reveal former CC participants' experience of creative work, personal development, and project work before attending the course. These scores were also categorized by workplace affiliation, whether managers and employees were at a workplace or out of work during the course (Table 3).

The long-term survey scores (Table 4) were studied and classified by whether participants conducted development projects in their usual workplaces or a workplace new to them. This categorization was implemented based on the assumption that the results of the 2 might differ. Written survey feedback was similarly organized. The original questions and scores were, in Table 4, reshuffled and organized into three main categories, the students' experience of (a) "increased creativity and the cultivation of new skills," (b) "personal development and developing a leadership character," and (c) a "changed working situation due to the implementation of development projects."

Table 5 presents a comparison of five questions in the closure questionnaire and the long-term survey that overlap. The answers were studied, grouped, and analyzed, individual responses and scores being merged to show the average answer from all responders in each survey. All questions and feedback used in this paper were translated from Norwegian to English.

Statistics

The results of the closure questionnaire (Table 2-3) are based on the use of a Likert scale of "none," "a little," "considerable," or "a great deal". The "none"/"a little" and "considerable"/"a great deal" categories were merged and compared using the Chi-squared test (Table 2) or Fisher's exact test (Table 3) for differences. The long-term survey scores (Table 4), which used a numerical scale from 1-10 and were divided into three categories, were compared using the Kruskal-Wallis one-way analysis of variance.

Table 5 shows the responses to five questions in the closure questionnaire and in the long-term survey that overlap. The long-term survey's numerical scale was organized to reflect the four response categories used in the closure questionnaire to allow comparison. Scores 1 and 2 were registered as "poor," 3, 4, and 5 were listed as "moderate," scores 6 and 7 as "good," and 8, 9, and 10 as "excellent". Fisher's exact test was used to combine and compare variations between timepoints. All analyses were undertaken using GraphPad Prism version 9.1.0 (216). All P-values were two-sided; $p < 0.05$ is considered to be statistically significant.

Results

Exam papers /Project reports

CC student exam papers (project reports) provided in-depth information on the development project. Workplace (WP) participants were fellow employees in ordinary workplaces or service centers, teachers, and students in schools, people in sheltered workshops, individuals with social or mental issues or people applying for social benefits, refugees, and immigrants. CC students' experiences and understanding from creative work on campus provided crucial references. The CC students used different arts-based approaches to strengthen workplace participant communication, collaboration, and sense of togetherness in their workplace projects. Workplace participants created various artifacts or expressions as symbolic representations of perceived workplace challenges at the individual, group, or organizational levels. These objects or outcomes were used as starting points for mutual sharing and reflection, exploring resources, and discussing possible solutions.

CC students described their project outcomes in their exam papers, sharing how their use of creative activity and arts-based learning approaches impacted their workplace participants. A CC manager shared how his workplace employees gained a new set of "eyes" in their perception of each other. Another CC student described the building of mutual bonds between immigrants that turned initial tension and uncertainty into laughter and curiosity. The classroom energy and the participants' body language changed in the school setting, producing a different type of dialogue. Workplace participants at social welfare centers gained an increased awareness of their working skills, which improved their self-confidence

and appreciation of their abilities and resources. In some cases, participants designed and created new products as part of their process (Meltzer, 2022).

Closure questionnaire results, Table 2-3

Thirty CC students answered the closure questionnaire (88% response rate), focusing on the CC students' previous experience of creative work, personal development, and project work. The responses were divided into four Likert scale options, "none," "a little," "considerable," and "a great deal". The percentage is written in bold black, merging "none"/"a little" and "considerable"/"a great deal".

Table 2 shows the CC students' responses, calculated by the Chi-squared test. This indicates how they rated their previous experience with creative work, personal development, and project work. Most students answered that they had considerable or a great deal of experience with creative work and personal development. They, however, had considerably less experience with project work, a statistical significance with a P-value of 0.003 being shown.

Table 2. Total responses, previous experience, closure questionnaire						
	N: 27-30	None N (%)	A little N (%)	Considerable N (%)	A great deal N (%)	P-value
Creative work	29 (85)	2 (7)	10 (35)	5 (17)	12 (41)	
		41%		**59%**		
Personal development	30 (88)	5 (17)	4 (13)	12 (40)	9 (30)	
		30%		**70%**		
Project work	27 (79)	8 (30)	12 (44)	5 (19)	2 (7)	
		74%		**26%**		**0.003**

Table 2. The course participants responses, rating previous experience with creative work, personal development, and project work

Table 3. Previous experience								
		Workplace affiliation	N: 12-17	None N (%)	A little N (%)	Considerable N (%)	A great deal N (%)	P-value
1	Creative work	Leaders and employees	16	2 (13)	8 (50)	1 (6)	5 (31)	
				63%		**38%**		
		Out of work	13	0	2 (15)	4 (31)	7 (54)	
				15%		**85%**		0.047
2	Personal development	Leaders and employees	17	3 (18)	4 (24)	7 (41)	3 (18)	
				31%		**59%**		
		Out of work	13	2 (15)	0	5 (39)	6 (46)	

				15%		85%		0.116
3		**Leaders and employees**	15	3 (20)	7 (47)	3 (20)	2 (13)	
				67%		33%		
	Project work	**Out of work**	12	5 (42)	5 (42)	2 (17)	0	
				83%		17%		0.408

Table 3. Examining the three categories of previous experience by CC students' workplace affiliation, manager, employee, or out of work during the course

Eighty-five percent of CC students out of work answered "considerable" or "a great deal" to previous experience with *creative work*, CC managers and employees scoring 38%. The difference, calculated by Fisher's exact test, showed statistical significance, with a P-value<0.047.

Eighty-five percent of CC students out of work answered "considerable" or "a great deal" to their prior experience with *personal development work,* compared with 59% of CC managers and employees. The difference, calculated by Fisher's exact test, was not significant.
The results for previous experience with *project work* differed from earlier measurements, with 67% of CC managers and employees answering "none" or "a little" experience before the course. The result for CC participants out of work was 83%. The difference, calculated by Fisher's exact test, was not significant.

Long-term survey results, Table 4

Twenty-seven former CC students answered the long-term follow-up survey (response rate 79%). Eighteen CC participants (100%) with a workplace affiliation and 9 out of 16 (56%) of participants out of work answered the questionnaire. This shows a significant difference, with a P-value of 0.002 by Fisher's exact test. Former participants out of work may not have responded for several reasons. One student had died, another never completed the course. Others may not have received the questionnaire due to changed email addresses, and some may not have replied due to forgetfulness or not wanting to contribute.

Table 4. Long-term survey scores, 3-6 years after the CC course, where 10 is the highest score					**Workplace affiliation**			
				1	**2**	**3**	**4**	**5**
To what extent did you find that the CC course:			**N: 25-27**	**All**	**Leader: N=7**	**Employee: N=10**	**New: N=10/ 17**	**P-value**
				Mean (SD)	**Mean (SD)**	**Mean (SD)**	**Mean (SD)**	
Increased creativity and skills cultivation	**1**	increased your contact with your creativity?	26	8 (7)	8 (6)	7.89 (7)	8.1 (5)	0.86
	2	cultivated new skills?	27	8.2 (8)	7 (7)	9 (2)	8.6 (5)	0.14
	3	provided a new understanding of arts-based learning?	26	7.92 (7)	8.29 (4)	7.67 (7)	7.8 (7)	0.92

Personal development and the developing a leadership character	**4**	provided new perspectives on your everyday work?	27	7.28 (9)	6.43 (8)	8.2 (5)	7.2 (7)	0.30
	5	made you more innovative in your profession?	27	7.2 (9)	6.71 (9)	7.9 (7)	7 (8)	0.59
	6	increased your sense of well-being as a process supervisor/ manager?	27	7.3 (9)	7.29 (9)	7.9 (7)	6.7 (8)	0.62
A changed working situation due to the implementation of development projects	**7**	the importance of carrying out a development project at your own or suitable workplace?	25	6.83 (9)	6 (9)	6.78 (8)	7.7 (7)	0.49
	8	encouraged you to use art-based learning approaches in your work?	26	6.96 (9)	6.14 (9)	7.33 (6)	7.4 (8)	0.71
	9	boosted your confidence in using this methodology in your work?	26	7.14 (8)	6.14 (7)	7.67 (8)	7.6 (7)	0.42
	10	lead to new work tasks, challenges, and opportunities in your workplace or elsewhere?	25	5.97 (9)	5.33 (9)	6.8 (8)	5.78 (8)	0.61
	11	lead to changes in your work situation?	27	6.36 (9)	5.29 (9)	7.6 (7)	6.2 (8)	0.41

Table 4. Participants were categorized according to their workplace affiliation

As shown in Table 4, CC responders were categorized according to their workplace affiliation and where they conducted their development projects, whether a manager or employee at their workplace or as participants out of work with a workplace that was new to them. One CC student, categorized as an employee, completed her development project at a workplace other than her own.

Table 4 shows the long-term survey scores. Eleven questions were placed on a 10-point rating scale ranging from poor (1) to excellent (10), the mean scores and the standard

deviation given in columns 1-4. Column 1, questions 1-11, shows the mean scores and standard deviation, columns 2-4 showing scores and standard deviation by CC participant workplace affiliation for development projects. Column 2 gives the rating given by CC course participants who were managers or self-employed (7 out of 7) and ran development projects at their workplace. Column 3 indicates CC employee scores for projects at their workplace (10 out of 10). Column 4 presents the number of points given by CC participants for projects at workplaces new to them (10 out of 17). Column 5 indicates the P-value.

Some of the long-term survey answers that stood out are highlighted below (Table 4). Answers to questions 1, 2, and 3 had the three highest mean scores. The *cultivation of new skills* (question 2) had an average score of 8.2, the average score for *increased contact with creativity* (question 1) was 8, and *a new understanding of how arts-based learning approaches work* (question 3) was 7.92. There was a marked contrast between the highest and lowest mean scores in the different groups for question 2, cultivating new skills. CC employees had the highest score, 9, whereas CC heads of workplaces scored 7, and CC participants who conducted their development projects at workplaces new to them scored 8.6.

The average score for questions 4, 5, and 6 illustrates whether the course *provided new perspectives to their everyday work*, *made them more innovative in their profession,* and *increased their sense of well-being.* The mean scores showed very little difference. There was, however, a marked difference between the group scores for question 4; *provided you with new perspectives on your everyday life*. CC employees conducting their development project in their workplace had an average score of 8.2, CC managers had 6.43 as their mean score, and those without a workplace affiliation 7.2.

The third section, referring to questions 7, 8, 9, 10, and 11, indicates a changed working situation due to the implementation of their development projects. The mean results are lower than for questions 1-6. Two of the responses show, in this section, a marked difference between the respondent groups. The importance of *carrying out development projects* (question 7) gave a mean score of 6.83. Responders out of work gave the highest score of 7.7, employees 6.78, and CC manager scored 6. However, scores for changes in their work situation (question 11) differed. CC employees scored 7.6, CC participants conducting projects at workplaces new to them scored 6.2, and managers 5.29.

However, these rating scales are subject to data limitations, as they only reveal respondents' overall dispositions. They do not provide specific data about their experiences. More detailed information came from the written qualitative responses, which complements the numerical scores. Three central themes surfaced, reinforcing, and confirming the main argument: (a) arts-based learning approaches enhance creativity and cultivate new skills, (b) arts-based learning sessions impact personal and leadership development, and (c) arts-based learning approaches used in development projects at workplaces change work situation.

Qualitative results from the long-term survey

Arts-based learning approaches enhance creativity and cultivate new skills

There were no significant differences between the written responses of the different CC participant groups, these responses focusing on achieving greater creativity and the cultivation of new skills. Their replies emphasized the importance of experiencing their creativity, knowing their expression, and attaining new insight into creative processes, methods, and tools. One CC participant described art-based learning as a non-invasive, awareness-raising, and uplifting form of communication that increases consciousness and reflection through bodily experience. Another CC participant, conducting her development project at a workplace different from her own, described that the course's creative work expanded her knowledge and understanding:

> This course is entirely different. Forget books and theory. You get to draw, paint and use pictures, and through that, you learn a lot of new things. You get to know yourself, your feelings, resources and discover what hinders you.

Arts-based learning sessions impact personal and leadership development

Many CC participants with a workplace affiliation conveyed that the course contributed to a greater awareness of and confidence in their role as leaders or employees. They shared that their leadership character had improved through reflection and knowledge and that they now trusted their competence and ways of being. A number of participants reported a stronger sense of themselves and their resources, this sense changing their working life for the better. Seeing, acknowledging, and questioning their status quo and work identity acted as a starting point for change. Some described moving from being withdrawn and cautious to feeling more independent, braver, and straightforward. One CC participant with a workplace affiliation wrote the following:

> I know myself better; I have gained more insight into who I am, how I influence others, and how they affect me. I use more time reflecting, trying to understand subconscious reactions. I face challenges with an open mind and use various tools to find solutions.

CC participants out of work shared that course participation had strengthened their self-confidence and sense of self and increased their trust in their resources and abilities. All groups described that they were released from their performance anxiety, which in turn strengthened their ability to act outside of their comfort zone and reduced their fear of others' emotions and ways of being. They shared how these experiences affected their perception of challenges and made it easier to cooperate and communicate.

Arts-based learning approaches used in development projects at workplaces change work situations

However, the written feedback of the long-term survey showed considerable differences between the three groups in the outcome of their development projects. Several CC managers shared how the course and implementing their projects influenced their leadership character and style, made them feel more receptive, and gave them new tools for dealing with day-to-day challenges that they valued. One CC manager pointed out that the development project had become part of the workplace identity and daily tasks and led to new projects with other partners. Another CC manager shared that the development project had been an eyeopener in the workplace.

CC students who were employees found that implementing their development projects had made them more visible in their workplace. They had experienced a rise in workplace participant awareness of their resources, and the project had increased their workplace participants' collective understanding and approval of these learning approaches. Many of these CC students experienced that their projects did not have a lasting effect in their workplace, despite promising results and improved personal confidence in using art-based learning approaches. Some told of a lack of support and approval of their workplace leaders.

Many CC participants, both managers and employees, with a workplace affiliation, described that the course helped clarify their present work situation. The development projects had, in some cases, highlighted workplace problems. As a result, some sought new jobs or altered their workplace responsibilities after the course. Others applied for new positions elsewhere with more room for creative expression.

CC students, out of work and without a workplace affiliation, had to find suitable companies themselves in their home region to carry out their development project. Several of these students found it challenging to establish contact with unfamiliar workplaces and set up

worthwhile projects with unfamiliar workplace participants. In the long-term survey, many expressed a need for more help finding a suitable workplace and guidance along the way.

Despite their workplace participants' initial skepticism and curiosity, many of these CC students reported how early workplace challenges transformed into enthusiasm, support, and good conversations about creative approaches. Some described that their project, strengthening and confirming the workplace's values and philosophy, contributed to positive change. However, the most important aspects were the opportunity to try out the methodology, acknowledging the importance of work experience as part of their return to education and working life. One former CC student wrote the following in the long-term survey:

> Conducting the development project had an enormous impact on my choice of profession. I was offered a position at the workplace and have worked there ever since. I used the tools I learned in the course. Because it was a development project, it lowered the threshold for daring to make mistakes.

During their internship, several CC students out of work were offered jobs at the host workplaces. Many reported that they, after graduation, returned to working life, sharing that their experiences on campus and in their development projects had contributed to their return.

Results, closure questionnaire versus long-term survey, Table 5

Table 5 compares answers to five questions in the closure questionnaire and the long-term survey that overlap and gives the correlation between them. The responses were divided into four Likert categories: "poor," "moderate," "good," and "excellent". The percentage is written in bold black, with "poor"/"moderate" and "good"/"excellent" merged.

Table 5. Comparing responses between the closure questionnaire and the long-term survey							
		N: 26-29	Poor N (%)	Moderate N (%)	Good N (%)	Excellent N (%)	P-value
To what extent did you find that the CC course:							
1 increased your contact with your creativity?	Closure questionnaire	29	0	1 (3)	0	28 (97)	
				3%		**97%**	
	Long-term survey	26	0	5 (19)	3 (12)	18 (69)	
				19%		**81%**	0.090
2 cultivated new skills?	Closure questionnaire	29	0	0	4 (14)	25 (86)	
				0		**100%**	
	Long-term survey	27	1 (4)	2 (7)	2 (7)	22 (82)	
				11%		**89%**	0.09

3	provided a new understanding of arts-based learning?	Closure questionnaire	29	0	3 (10)	8 (28)	18 (62)	
					10%	**90%**		
		Long-term survey	26	0	4 (15)	4 (15)	18 (69)	
					15%	**85%**		0.696
4	provided new perspectives in your everyday work?	Closure questionnaire	29	0	1 (3)	6 (21)	22 (76)	
					3%	**97%**		
		Long-term survey	27	1 (4)	5 (19)	7 (26)	14 (52)	
					22%	**78%**		0.048
5	made you more innovative in your profession?	Closure questionnaire	28	0	1 (4)	5 (18)	22 (79)	
					4%	**97%**		
		Long-term survey	27	2 (7)	5 (19)	5 (19)	15 (56)	
					26%	**74%**		0.025

Table 5. A comparison of results between closure questionnaire and long-term survey

The answers to questions 1, 2, and 3 were not significantly different, indicating that these results remained stable over time, with 21 out of 26 long-term survey responders (81%) answering "good" or "excellent" when asked to rate whether the course had increased their contact with their creativity. Five answered "moderate," giving a total P-value of 0.09. There was, similarly, no significant difference between question 2 (P-value 0.09), cultivating new skills, 24 former CC participants (89%) responding "good" or "excellent" in the long-term survey to the acquisition of new skills 3-6 years after the course, 3 answering "poor" or "moderate". Question 3, with a correlation score of 0.696, showed 22 (85%) responders answering "good" or "excellent" to whether the course had provided them with a new understanding of how arts-based learning approaches work. Four responders answered "moderate".

However, the responses to questions 4 and 5 in the long-term survey showed a significant difference (P-value 0.048 and 0.025). These results indicate a slight reduction after course closure in whether CC responders experienced the course as providing them with new perspectives and making them more innovative in their work.

Discussion

The CC course's three goals were ambitious: "Increased creativity and acquisition of new skills," "cultivating personal and leadership character" and "using arts-based learning approaches when conducting development projects." An exposure to 160 hours of campus training and development projects at different workplaces showed a lasting impact in a number of these fields. Furthermore, the long-term survey findings suggest that many of the results obtained at the end of the course remained stable 3-6 years after graduation. The CC participants' answers show, importantly, no significant difference between responses to questions 1-3 in the closure questionnaire and the long-term survey, as shown in Table 5. These answers indicate a long-lasting effect of increased creativity, cultivating new skills, and understanding how arts-based learning approaches work. All participants had high

scores for increased contact with their creativity (Table 5, question 1). The closure questionnaire (Table 3, question 1), however, displayed that CC students out of work had almost twice as much previous experience with creative work (85%) as those who had a workplace affiliation (38%). These students also had a higher score for previous experience with personal development work (85% versus 59%) (Table 3, question 2). Their familiarity with and knowledge of these fundamental course elements may have compensated for a possible lack of confidence due to their working-life situation.

The prior experience of CC students who were out of work with creative and personal development work may explain why they applied for the course. The CC program offered them an opportunity to cultivate familiar competencies and use them in a workplace setting. However, the results may indicate that despite their earlier artistic work experience and scoring 8.6 for new skills cultivation (Table 4, question 2), these participants encountered a different learning approach through the arts. The employee group also scored high in cultivating new skills (9). Managers, however, scored 7. This difference may indicate that the employees were more successful than the managers in using these tools in their day-to-day work. Long-term survey feedback supports this. A number of CC employees expressed that using arts-based learning approaches had made their teaching and supervision more varied, which had inspired them to invent new learning methods.

The CC students' project reports provided more in-depth information, such as 'very satisfied' workplace project participants, who reported better communication skills and increased awareness of their abilities and resources. They, through the arts, discovered common aspects that bound them together and brought a collective sense of familiarity and security. Furthermore, these results mirror the aforementioned research findings on participants, arenas, and advantages when engaging in arts-based learning approaches (Coholic et al., 2012; Coppola et al., 2017; Sethi, 2012; Van Katwyk & Seko, 2018).

The answers to questions 4, 5, and 6 in Table 4 revealed that most CC course participants had, in general, a strong sense of well-being in their day-to-day work and profession. Their written feedback in the long-term surveys also conveyed a strengthened sense of self and self-confidence, testifying that these multimodal arts-based approaches had fostered their creativity, reflexivity, and leadership competencies. The course's ongoing processes proved to be of personal value, connecting art with individual experiences and leadership character cultivation. An example is a statement from a CC participant who held a leadership position:

> This (course) is the most personal leadership development program I have participated in so far. I have experienced that it has impacted the way I think and plan as a leader. I have become more conscious, aware, and confident in my everyday life and working life.

The results (Table 2) showed a significant difference between the total response rate for CC participants' previous experience with project work (P-value of 0.003) for their prior experiences with creative work and personal development. However, the answers in Table 3 show a general predominance of scores in the categories' none' or 'a little' and no significant differences between the groups. These results indicate that carrying out development projects in a workplace setting was new to most CC participants irrespective of workplace affiliation.

There was, nevertheless, a difference in the CC students' long-term scores for establishing and conducting development projects at suitable workplaces (Table 4, question 7-11). Despite no statistical differences between the three groups, some of these long-term effect variations are interesting, with a number of factors influencing the project results. One factor relied on how well the CC student managed to share their project ideas with the board, the managers, and the employees. A second relied on how well the workplace managers followed up their responsibilities and assigned the required support. The third

was the organizations' and the workplace project participants' openness to change, understanding, and valuing development processes.

CC students out of work experienced greater challenges in finding and establishing their workplace projects than the other students. Feedback on campus and the long-term survey showed a need for closer follow-up of this student group in helping them find suitable workplaces for their development projects and increased practice guidance along the way. For example, one CC student wrote the following when asked to suggest course improvement issues:

> I missed a closer connection between the workplace internship and the course. These placements, receiving students without a workplace affiliation, should have been prepared in advance. There should have been a supervisor at the internship and more follow-up from the university.

Despite these initial difficulties, these course participants scored higher than their fellow CC students in the long-time survey for the carrying out of development projects at workplaces (Table 4, question 7). They ranked the value at 7.7, CC managers and employees ranking this at 6 or 6.78. They had almost the same scores as CC employees on the extent to which these projects had boosted their confidence in using art-based learning approaches (Table 4, question 9). Therefore, these results may underline the importance of using their resources and taking part in working life again.

Some CC managers and employees chose to change jobs after the course, underlining their need to uphold and apply their newly acquired skills in their everyday working life. This willingness to change careers to avoid burnout and maintain job satisfaction corresponds to present and future demands in working life, workplaces requiring creative people with new skills prepared to change, readjust and rethink themselves and their competencies (NOU 2015:8, 2015; STAMI-rapport 2018:19, 2018).

Critical aspects and considerations

Our follow-up data from 3-6 years after the course strengthens the analyses. However, a weakness of this study is that there was no pre-course survey to compare with responses from the closure questionnaire and the long-term survey. Our study also does not include research that compares the outcome of the CC courses with other more traditional courses at the university with a similar curriculum. Another weakness is that the long-term follow-up response rate differed significantly between groups. All 18 former CC participants with a workplace affiliation when attending the course responded to the survey. However, only 10 out of 16 participants out of work responded. This difference between the groups in response rate may have contributed to bias. The low number of course participants caused a wide range of scores, and a relatively high standard deviation, as shown in Table 4. We must, nevertheless, assume that the response from non-responders would have been within the standard deviation.

Springham (2008) underlines the need to establish adequate professional training and understanding of how art interacts with psychological states before offering these learning approaches in workplaces or organizations. His concern is that "some arts and health activities exist in a grey area where creative projects which involve linkage to personal material can become art as therapy interventions by default" (p.65). Therefore, non-artist teachers in arts-based learning approaches need training and experience in artistic work and arts-based processes to perceive, facilitate, create, and exercise this learning approach in a serious way. Likewise, the practitioners' familiarity with the target group and previous professional expertise and experiences represents major factors to ensure a safe space for a creative outlet (Meltzer, 2022).

The CC course initially aimed to reach managers and employees with a workplace affiliation, in which they provide services to people outside working life and education. However, 16 of the 34 CC participants were out of work when they attended the course. Some of these students expressed a need for help in finding suitable workplaces for their development projects and additional practice guidance. Regular university course students receive assistance finding relevant internships in their home regions and are visited by teachers during their training. However, the CC course had no access to these additional resources due to being a continuing education program.

The long-term out-of-work participants at the Værket community service center in Denmark were offered substantial support in returning to education or working life. They had access to counseling and therapy and a team that helped them find suitable workplaces. In Norway, different service centers connected to the NAV welfare system offer similar support to people outside the job market. However, the CC course was a university course, not a service center program. We also have no collaboration with NAV. The vulnerability expressed by some CC participants highlights the need to recognize and understand how powerful it can be to work with art through self-expression and implement arts-based projects that target others. Along the way, we identified a few vulnerable students and recommended additional counseling or therapy elsewhere to ensure their well-being.

Another aspect that may have affected the development projects' long-term impact was that the university, for a number of reasons, never offered a second year. Here, part three of the course never progressed from a paper description. This third module, which emphasized the organization and society, aimed to implement further and anchor the workplace development projects. A future solution for a similar course could be planning and conducting workplace projects in the second year. The first year could focus on experiencing and in-depth training in art-based learning approaches at an individual and group level. An alternative project in these first modules could be to encourage CC course participants to explore their creativity and prepare and perform an artistic piece of work of their own choice.

Conclusion

We have provided testimonies and results demonstrating that the CC course, including multimodal arts-based learning interventions and workplace development projects, had a long-term effect. CC course participants enhanced their creativity, acquired new learning skills, and improved their personal qualities and leadership competence. Most CC participants, employed or unemployed, returned to working life with renewed motivation and zest after the course. Some participants reassessed themselves and their competencies, choosing to change their work situation after the course to uphold and apply their newly acquired skills in their everyday working life. The long-term outcomes of conducting development projects were, however, more diverse. The projects positively impacted the workplace participants at an individual and group level. However, additional course modules may be needed to fully anchor these projects and make them part of the workplace focal point and profile. In total, these outcomes signify the power of art, indicating that the use of arts-based learning approaches causes lasting improvements and affect the ability to think anew in the lives of people who embrace them, whether inside or outside working life.

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About the Author(s)

Cecilie Meltzer, professor emerita in arts-based learning, has a background as an artist, art therapist, teacher, and researcher. Many years of artistic activity within textile, sculpture, and painting cultivated her ability to be innovative and explore other professional fields. Her training and working as an art therapist demonstrated the healing powers of art, showing how creative expression can be a tool for reflection, awareness, and transformation. These practice fields merged in her work as a teacher and researcher, resulting in her use of arts-based learning approaches when teaching in educational and working life settings. She is one of the tailor-made course Creative Communication founders at Oslo Metropolitan University. Cecilie Meltzer has presented her work at numerous seminars and conferences, nationally and internationally. In her articles and book chapters, she shares how arts-based learning approaches and increased process awareness can release latent resources personally and professionally, support individual and group creativity and promote change in life and working life.

Sebastian Meltzer is a medical doctor in an Oncology residency program and divides his time between clinical work and clinical and translational research. He is deputy head of the clinical and molecular oncology in colorectal cancer research group (CMOR; www.acredit.no), and principal investigator of an ongoing prospective biomarker study, as well as head of the circulating biomarker research program in two national clinical studies. Through his background in translational cancer research, he has acquired extensive experience in cross-disciplinary statistical analysis and data interpretation. He has a track record of 18 publications in international, peer-reviewed journals, and several written and oral presentations at national and international research conferences. He has ongoing collaborations with both national and international research groups. In addition to balancing clinical work and research, he is the main supervisor of a Ph.D. candidate and has been co-supervisor of three Ph.D. candidates, as well as several master students on various projects.

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[i] An almost identical model of the Creative Communication study program was published in Meltzer (2022)