

# The impact of creative expression workshops on children

A concise research report



Picture 0.1: Painted tent (Peacepainting, 2016).

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## Abstract

This small-scale research looks at how creative expression workshops can impact children's personality and resiliency development. Creative expression as a tool requires new and innovative ideas but lacks general academic validation, especially concerning the outcome, activity design, and measurement. As creative expression methods are rarely comparable, this research focuses specifically on the Peacepainting method. The Norwegian organisation uses creativity (painting) as a tool for personal and societal impact. For a detailed insight, four individual and one group (8 participants) in-depth interview with workshop facilitators created the sample. Additional secondary academic data elaborates the background of creative expression workshops and puts the qualitative data results into perspective. For a transparent assessment of the impact on children's development, the Metzl and Morrell (2008) framework was applied and measured with the help of the OECD Big 5. Numeric assessment and interview exploration created some key takeaways. It shows that creative expression workshops are a personal journey with different relevancy per participants. Beyond that were all Big 5 domains considered stimulated and developed to a certain degree. Facilitators especially strongly perceived the development of openness to experience and extraversion. Each domain stimulation was also connectable to specific intervention activities or design element. The aspect of painting as a tool is perceived as highly formative. Despite that, facilitators see the general workshop atmosphere as impactful due to a created space that is considered safe, exploratory, free, relaxed and connective. (Potential) exhibitions, where art pieces from participants are shown, reveal unexpected relevancy in developing pride, self-efficiency and consciousness.

# 1. Background

The world experiences rapid changes creating new demands for its people, which often summarise as 21<sup>st</sup> century skills or resilience (Chernyshenko, Kankaraš, & Drasgo, 2018; Berg et al., 2018; Park, 2018). Although the name is disagreed upon, the importance of developing the skills is universally accepted. Both concepts point to the importance of strengthening competencies connected to social-emotional learning (SEL). Such competencies can include openness to experience or agreeability, for example (Chernyshenko et al., 2018). One strategy to develop these competencies is art, creativity, and art therapy (Puent, 2016). An example of creative expression intervention that proudly claims to simulate these relevant skills, adding to overall resilience, is *Peacepainting* (Peacepainting, 2020b).

Even though creative expression interventions like *Peacepainting* and related concepts show a relationship, academic validation is lacking. This research explores the linkage of intervention and lacking validation by exploring the creative expression field, problem (lack of validation) and *Peacepainting* specifically.

## 1.1. Peacepainting intervention

*Peacepainting* is a Norwegian foundation providing creative expression workshops, exhibitions and is currently building an art center. The creative expression workshops centre on painting activities to learn and experience. Painting is considered the tool of the workshop, but it is not about learning to paint well. Carefully designed workshops include conversation, reflection, painting as a tool, experiencing and guidance from facilitators (see section 2.5 for a workshop description), creating a safe learning environment that stimulates and develops competencies such as expressiveness or openness to experience. Each workshop is also (indirectly) connected to one or multiple broader topics of conversation like diversity, inner/outer peace, trauma, and resilience. *Peacepainting* summarises their approach as “art to increase equality and resilience on an individual and societal level” (D. A. Hudcová personal communication, February 4, 2021).

## 1.2. SDG relevance

The impact of creative expression is on an individual and the societal level connectable to the Sustainable Development Goals (SDG) of the United Nations (UN). That is the case for *Peacepainting* as well as the field of non-formal skill-based education. Creative expression (as applied by *Peacepainting*) adds to individuals and society's wellbeing, which is the broader essence of the SDGs (United Nations, 2020c).

*Peacepainting* also connects to specific goals like SDG 4, which focuses on education. Within that goal, they are especially adding to the target achievement of 4.4 and 4.7, which look at innovative education possibilities and non-cognitive skill development (United Nations, 2020a). For an explicit goal, target and indicator description, see Appendix I.

Most *Peacepainting* workshops include marginalised groups. The marginalised participants get a voice and create awareness by focusing on their concerns, stories, dreams, and beliefs. That also means that they add to a diverse array of SDG, depending on the participants and partnering organisation. One example of such collaboration are workshops held together with the partner Firefly, an organisation working with children facing cancer. Besides the benefits for the participating children, Firefly sees the workshops as a tool to create social awareness (M. S. Popović personal communication, March 18, 2021). Additionally, it is considered a pleading to provide secondary school education for hospitalised children in Croatia. Therefore, they also tackle SDG target 4.5, ensuring equal educational opportunities for all (across all education levels) (United Nations, 2020a). It also targets 16.b of Peace Justice and strong institutions by fighting for non-discriminatory laws and policies (United Nations, 2020b).



### 1.3. The problem applied to *Peacepainting*

Creativity as a tool is a field of intervention, which gains importance due to the need for SEL. *Peacepainting* and organisations that apply such a type of intervention face many difficulties. They especially experience a limit in available academic literature, which leads to a need for specific and applicable academic validation to assess and measure the constructional and interlinked background (Coholic, Eys, & Lougheed, 2012; Rousseau, Drapeau, Lacroix, Bagilishya, & Heusch, 2005). Besides that, is the lack of academic validation due to causes, like (1) missing longitude studies (Rousseau et al., 2005) (2) a lack of comparability because of unique design elements like timeframe and type of creative expression (e.g., painting, theatre) (Coholic et al., 2012).

These issues relate directly to innovative interventions, which need validation of concrete activity designs or workshop outcome measurement. Further topics that lack validation include personal and societal improvements due to creative expression workshops. For *Peacepainting*, measurability is additionally intricate because many *Peacepainting* participants are young, traumatised and have communication barriers due to mental/ physical impairments (D. A. Hudcová personal communication, February 4, 2021).

Despite these factors making measurements more complicated, they do not limit the relevancy of scientific evidence underpinning the activities and method. Instead, it means that the validation process is a journey, where many research projects are needed to address different aspects of *Peacepainting* and explore different perspectives. To show the broader problem, *Peacepainting* defined the main problem as:

**We need additional validation of the approach, method and outcome.**

### 1.4. Field relevance

The need for validation is not only required by *Peacepainting*. It is also relevant for fields connected to creativity as a tool and (informal) education. See Appendix II for how the problem impacts diverse stakeholders and fields. SEL Interventions and programs that use creativity as a tool are highly distinct in design (timeframe, activity and method) and concentrated on individuality, thoughts, and emotions (Rousseau, Singh, Lacroix, & Measham, 2004). That makes it difficult to break it down into measurable, comparable, repetitive indicators (Beauregard, 2014). Hence, how can we assess or define the benefits of creativity as a tool, despite not having a definition of art (D. A. Hudcová personal communication, February 4, 2021)? Summarised with the Sage principle, the harder it is to prove something, the more evidence is needed to prove it (Deming, 2016).

### 1.5. First steps taken

*Peacepainting* took the first steps to build and support the underlying validity and operationalise the organisational structure for themselves and the field. One part of this operationalisation process is the validation of the used method, outcomes, and approach. The first strategy implemented is to lean on existing research and literature, which is now a focal point of *Peacepaintings* online presence. Beyond that, *Peacepainting* relies on researchers to underpin the unique activities scientifically and add to the validity of the organisation and field (D. A. Hudcová personal communication, January 22, 2021). Currently, one study looks at improvement of mental and physical wellbeing when applying creative expression workshops in combination with horseback riding. At the same time, the big-scale research from the Norwegian University of Science and Technology looks at the impact of the *Peacepainting* method onto different levels (1) child's benefit (2) effects on the psychosocial environment in schools (3) a global significance in creating equality and peace (D. A. Hudcová personal communication, January 22, 2021). The in this report represented research is *Peacepaintings* next steps in the method validation journey.

## 1.6. Problem summary

Like mentioned before is the problems of needed validation relevant for the field and *Peacepainting*. Because of the extensiveness of the need, this concrete project approaches the problem through one specific small-scale research. The research identifies the development of competencies considered relevant 21<sup>st</sup> century skills. Furthermore, it focuses on the impact when participating in a *Peacepainting* creative expression workshop. The looked at competencies are summarised under the term Big Five (Big 5), as coined by the Organisation for Economic Co-operation and Development (OECD) (Borowski, 2019). The five competencies within the frame consist of (1) Openness to experience, (2) Conscientiousness, (3) Extraversion, (4) Agreeableness, (5) Emotional stability and additional compound skills (Critical thinking, Self-efficacy, Self-reflection). When applying the specific terms introduced, the problem shortens to: **How do creative expression workshops contribute to developing the OECD Big 5 skills in children?**

The research derived from desk research and interviews. All conducted interviews were with *Peacepainting* workshop facilitators due to their expertise and experience. The collected information was analysed, coded, assessed and discussed.

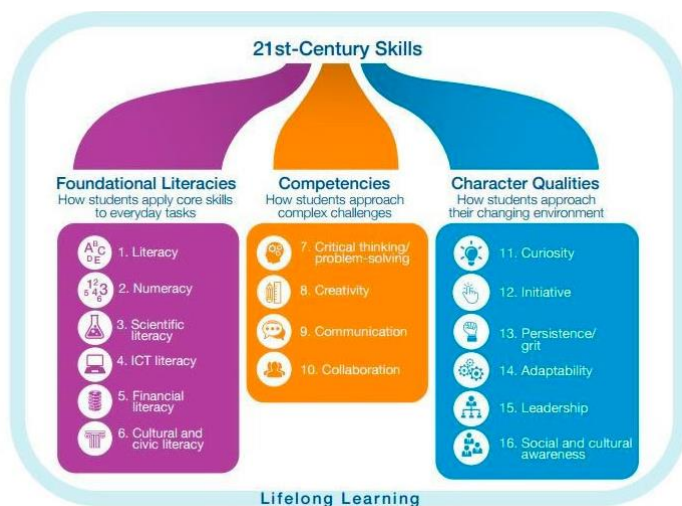
## 2. Literature exploration

It is vital to explore the underlying concepts to understand the research ground and limitations and add to the earlier defined problem. That is why this literature exploration looks at the related concepts of resilience, Social Emotional Learning (SEL), Big 5 and creativity.

### 2.1. A need for new skills: Resilience

The world is increasingly complex, interconnected, and fast-changing, which humans need to adapt to (Kay & Greenhill, 2011; Park, 2018). Adapting to the changing demands can include developing 21<sup>st</sup> century skills or strengthening one's resilience. They describe the need of gaining the essential skillset to

Figure 2.1.1: 21st century skills representation



Source: World Economic Forum (2016, p 4)

adapt to the environment and learn competencies relevant now and in the future (Luthar, Cicchetti, & Becker, 2000). Despite the approaches varying in name, they share many similarities. Both concepts are collections of foundational cognitive skills, personality qualities and competencies (Berg et al., 2017; Park, 2018). Figure 2.1.1 shows what that looks like for 21<sup>st</sup> century skills.

According to Chernyshenko et al. (2018), both concepts share enough similarities to be used interchangeably. Despite the similarity in what the concepts entail, the research ability differs. Research on 21<sup>st</sup> century skills is relatively new and mainly applied to whole educational systems or the wholistic learning journey of students (Kirschner & Stoyanov, 2020).

In comparison, resilience research looks at narrow details and specific components (Earvolino-Ramirez, 2007; Goldstein & Brooks, 2013). Moreover, extensive resilience research is available. According to Chernyshenko et al. (2018), resilience is also a valuable framework to connect to more concrete components like creativity as a tool. That is why resilience is the new basic skill set further explored in this research.

When scholars first started exploring the concept of resilience in the 1930s, children were often considered invincible and invulnerable or with absolute resilience (Earvolino-Ramirez, 2007; Masten, 2001). Masten (2001) connected that to an existing knowledge gap in understanding a child's responses and how coining experiences are for children. With time, added research and knowledge, that perception changed. Mainly because of a wider variety of longitude studies and researching the lasting effects of young children facing adversity.

Today, scholars agree on the broader definition of resilience which describes a state of balance that helps to recover and cope with changes (Earvolino-Ramirez, 2007; Maclean, Cuthill, & Ross, 2014; Sisto et al., 2019). Within the broader definition, scholars see resilience in children from three viewpoints.

Resilience as

- (1) a stable and genetic personality trait (Earvolino-Ramirez, 2007; Sisto et al., 2019)
- (2) a positive mental health stage, learnable through skills and attitudes like self-esteem (Earvolino-Ramirez, 2007)
- (3) a dynamic and combining process, connecting individual and contextual aspect which evolve over time (Egeland, Carlson, & Sroufe, 1993; Oshio, Taku, Hirano, & Saeed, 2018).

Summarised, it means that the first two types identify resilience on a genetic or personality trait basis, often described as ego resilience. In comparison, the third type looks at the balance of resilience, including factors of protection, vulnerability and mediation from in-/external environments, across time (Luthar et al., 2000; Metzl & Morrell, 2008).

Solely when applying the third type of resilience, Luthar's et al. (2000) description, internal and external factors are considered highly relevant. Internal factors can include personal traits (e.g., optimism) and skills, like social-emotional learning (Chernyshenko et al., 2018; Sisto et al., 2019). Components in external aspects include, for example, community, living situation (Egeland et al., 1993; Luthar et al., 2000; Sisto et al., 2019), and cultural background (Goldstein & Brooks, 2013). Therefore, a person's resilience is scalable, developable as well, as naturally there. The extent of existing nourishable ground of resilience or resilience supportive skills depends on the person. According to Nakaya, Oshio and Kaneko (2006), personality, consisting of an array of internal factors, is considered the more forming and influential aspect.

For better visualisation, it is helpful to imagine resilience with the help of Goldstein and Brooks (2013) description. They break resilience down into sizable and describable building blocks. Such blocks can include characteristics, skills, or knowledge and behaviour, often summarised under the term competencies (Goldstein & Brooks, 2013; Metzl & Morrell, 2008). Figure 2.1.2 shows one example built up of resilience blocks. However, building blocks are not a stable, lifelong collection of skills. Instead, it changes with time, like it changes form, size and positioning. That also means

**Figure 2.1.2: Example resilience building blocks**



Source: Moore (2013, p 5).



that a current state of resilience cannot accurately predict or determine future handling of difficult situations (where resiliency competencies are applied/needed) (Egeland et al., 1993). However, if the building blocks are formable, they are also developable, and therefore it is possible to stimulate resilience. The immense variety and combinations of protective factors (building blocks) create a unique and personal set of resilience competencies in each individual (Nakaya et al., 2006). According to scholars like Nakaya et al. (2006), it also means that an individual's journey to strengthened resilience is unique. Therefore, there is not one possibility of a strategy or intervention that works for all to increase resilience.

Even though resilience is researched for decades, a lack of scientific evidence still exists, especially when it goes beyond conceptualising and describing (Luthar et al., 2000). Policymakers, researchers and organisation require additional research throughout all phases of resiliency development, from validating resilience supportive activities (e.g., painting, theatre, boxing) to societal impacts (Egeland et al., 1993; Goldstein & Brooks, 2013; Luthar et al., 2000). Especially lacking are longitude studies to show the potential and limitations of resilience stimulating activities (Egeland et al., 1993).

## 2.2. Social-emotional learning

One way identified to increase resilience is Social Emotional Learning (SEL). It is also a strategy, seen as relevant when developing 21<sup>st</sup> century skills, to deal with the faster-changing world (Berg et al., 2017). Sensible, as both terms are considered similar and often used interchangeably (Berg et al., 2017; Park, 2018).

**Figure 2.2.1: Education sector relevant SEL framework**



Source: Borowski (2019a, p 3).

Figure 2.2.1 shows the concept of SEL in the formal education setting. The central point of SEL focuses on developing competencies and lifelong learning strategies, stepping away from purely focusing on cognitive skills (Kautz, Heckman, Diris Ter Weel, & Borghans, 2014). The outer realm of the frame describes examples of SEL competencies impacting environments. SEL is also applied beyond the formal education sector and across ages (Chernyshenko et al., 2018; Ross & Tolan, 2018). The central point of SEL competencies is also described as personality traits, being “relatively enduring patterns of thoughts, feelings, and behaviours that reflect the tendency to respond in certain ways under certain circumstances.” (Roberts, 2009, p.140). Personality traits and competencies consist of more narrow and descriptive levels, including skills, behaviours, attitudes and characteristics, like conscientiousness, openness to experience, extraversion, agreeableness or emotional stability (Chernyshenko et al., 2018; Jones & Doolittle, 2017).

When applying SEL, effects and benefits are seen on diverse levels, mostly broken down into societal and personal. On an individual level, this means, first and foremost, strengthening social and emotional skills, like openness to experience (Chernyshenko et al., 2018), but it can also increase sovereignty in negotiations or job interviews (OECD, n.d.; Sackett & Walmsley, 2014). Individuals also tend to perform better in cognitive skills (Chernyshenko et al., 2018; Durlak, Weissberg, & Pachan, 2010; Kautz et al., 2014). Kautz et al. (2014) clearly show a strong interconnection between cognitive development and SEL skills. For example, can the SEL competencies curiosity and open-mindedness help to have a more proactive approach towards education, the schooling system and learning. That again leads to a higher likelihood of good academic performance and therefore supported cognitive skills (Chernyshenko et al., 2018; OECD, n.d.).

On a broader societal scale, SEL is also highly impactful. As Chernyshenko et al. (2018) states, SEL has “direct relevance to the wellbeing of wider communities and societies as a whole” (p. 38). That is because SEL is a relevant component to function and adapt to the fast-changing world (Chernyshenko et al., 2018; Kautz et al., 2014). By developing SEL competencies, the factors considered necessary for a wellbeing society are stimulated (Chernyshenko et al., 2018; OECD, n.d.). Such factors include resilience, work well with others, embracing differences, being innovative and resourceful. It also connects to more concrete factors like higher employability and productivity, which lead to higher economic output and can translate into higher living standards. Research also shows that SEL competency decreases crime rates and increases social cohesion, institutional and social trust, civic engagement, and environmental activism, representing increasingly important societal wellbeing aspects (Chernyshenko et al., 2018).

To some extent, these benefits naturally occur like SEL naturally develops in humans. Generally, SEL competencies stabilise over adulthood, like all factors connected to personality (Specht, Egloff & Schmukle, 2011). The most formative time is considered the age period of 6 until 18, following the adolescence disruptive principle (Chernyshenko et al., 2018; Soto & Tackett, 2015). This principle summarises the biological, social, and psychological transitions from childhood to adolescence, accompanied by (drastic) changes in personality. In this period, individuals experience a lot of biological changes accompanied by hormonal overload. On a personal level, they develop broader awareness of their surrounding and behaviours. Moreover, they experience a need for a new set of skills like negotiating, resolving (inner and outer) conflict or empathy, to function age accordingly. Lastly, they increasingly experience societal pressure (Chernyshenko et al., 2018; Soto & Tackett, 2015). That leads to a magnitude of demands on regulatory, emotional, behavioural and social capacities. Because this period is where change appears and personality consolidates, it is also a perfect realm for additional personality forming interventions. Because as changes already happen, it is simpler to mould personalities into the desired direction (Chernyshenko et al., 2018; Soto & Tackett, 2015). That is also the case when applying SEL interventions.

Beyond the most formative years, other natural developments include SEL skills like emotional stability and agreeableness. These competencies are naturally increasing with age, whereas vitality decreases with age. Interesting enough are some competencies changing multiple times throughout one lifetime, creating somewhat of a U-shape. Openness to experience is one such competency. It is naturally strong in young and old age while experiencing a decrease in midlife. In comparison, extraversion and agreeableness follow an inverted U-shape which peaks between 40-60 years before decreasing again (Chernyshenko et al., 2018; Costa & McCrae, 2006).

SEL can also be stimulated and developed through activities or programmes. Chernyshenko et al. (2018) took a step back and assessed diverse SEL programs/activities (e.g., painting workshops, theatre plays) on structure and outcome. Concluding, the most significant improvements appear in programmes that run shorter than one year and have less than 20 individual sessions. Contrary to that, Ross and Tolan (2018) concluded that the development of SEL competencies adds to the individuals and societal wellbeing, regardless of approach, timeframe, or activity type (e.g., painting, acting). Another example is a study by

Lewallen, Hunt, Potts-Datema, Zaza, and Giles (2015) that sees the optimal strategy to develop SEL when focusing on the whole child, including the surrounding environment (e.g., family, income, culture, climate). This approach fits into the operationalised intervention assessment by Durlak et al. (2010). Defining that successful SEL interventions are SAFE (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011):

- (S) sequenced, which means that all done activities are interconnected to create one intervention
- (A) active learning, where at least one part of the intervention is proactive, to encourage participants to learn and experience
- (F) focus sufficient time on skill development
- (E) explicit, working on something more concrete than positive development, like resilience, Big 5 e.g.

Nevertheless, even when applying the SAFE method, no intervention works for all individuals (Durlak et al., 2011; Nakaya et al., 2006). The reason for that is the uniqueness and individuality of every person, similar to the discussed protective resiliency factors. Moreover, is the assessment of these strategies extremely difficult, according to Berg et al., 2017. Because personality changes can be sudden and impactful, they are hard to prove and showcase different relevance and impact depending on the measuring strategy.

### 2.3. The Big 5 frame

A unifying and straightforward smaller framework can limit the dissimilar outcomes when measuring SEL. There are many available frames to assess personalities, like the Big 5 or the Mayers-Briggs test. The Big 5 frame is applied since the 1930s and developed simultaneously across various sectors (e.g., therapy, leadership) (John, Naumann, & Soto, 2008). Initially, it solely described and assessed personal characteristics (John et al., 2008). Since then, it adapted to 21<sup>st</sup> century relevant needs, different target groups and activities (Chernyshenko et al., 2018; John et al., 2008). In a way, the Big 5 is a continuous self-learning framework with multiple layers. As figure 2.3.1 shows, it has five main domains, which can be broken down into skills and attitudes and once more narrowed down to the smallest unit of descriptive behaviour adjectives.

**Figure 2.3.1: Descriptive behavior and adjectives per OECD Big 5 domain**

Factor I: Collaboration (related to Big Five Agreeableness)	Factor II: Task Performance (related to Big Five Conscientiousness)	Factor III: Emotion Regulation (related to Big Five Emotional Stability)	Factor IV: Engagement with Others (related to Big Five Extraversion)	Factor V: Open-mindedness (related to Big Five Openness to Experience)
Compassion, care, co-operation, kindness	Self-discipline, focus, perseverance, self-control at school, grit	Self-confidence, self-esteem, decisiveness, tackling tough problems	Social connection, teamwork, social awareness, public speaking	Curiosity, inquisitiveness, willingness to try new ideas, receptivity
Respect for others, empathy, tolerance, fairness	Organisation, diligence, precision	Cheerfulness, happiness, optimism	Assertiveness, leadership, courage, charisma, speaking out/taking a stand, bravery	Innovation, vision, insight, tinkering (inventing), learning from mistakes and failures, excitement of creating something new
Trust, forgiveness, gratitude, appreciation of others	Dependability, reliability, consistency, trustworthiness	Tranquility, balance, stability, equanimity (composure and even-temper in difficult situations)	Enthusiasm, passion, zest, inspiration, spunk, spontaneity, playfulness, humour	Appreciating beauty in the world, living in harmony with nature, spirituality, mindfulness, existentiality, awe, wonder, reverence
Living in harmony with others, interconnectedness, inclusiveness	Goal orientation, motivation, work ethic, effort, productivity	Self-compassion, self-kindness (being positive and understanding towards yourself)		Self-reflection, self-awareness, consciousness, self-actualisation, authenticity

Source: Chernyshenko et al. (2018, p 14).

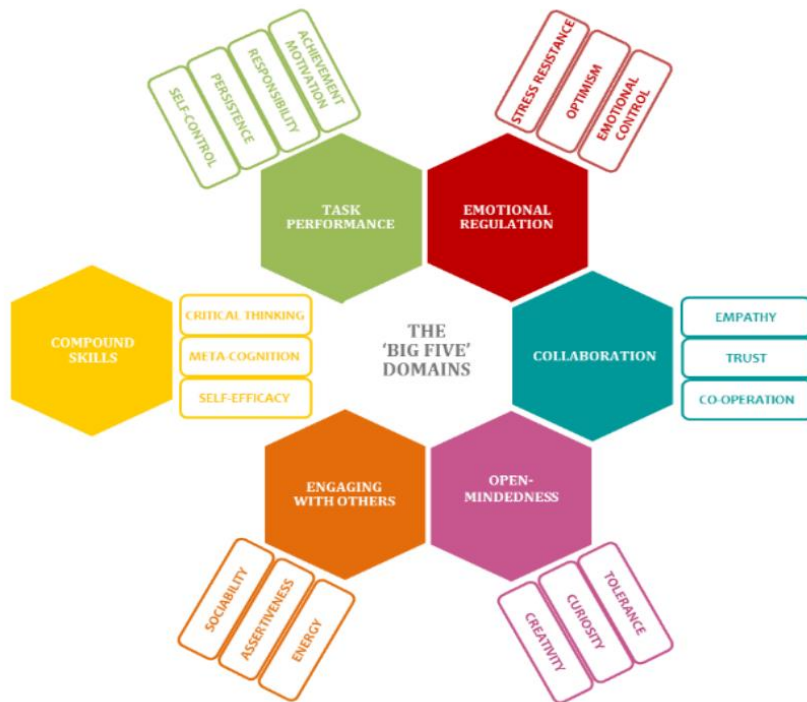
According to John, Caspi, Robins, Moffitt and Stouthamer-Loeber (1994), the underlying base of the Big 5 is unique, as it creates the opportunity to identify domains via natural language. Natural language describes daily used language, phrases and words (descriptive text). That means all adjectives, explanations, and descriptions can connect to one or multiple Big 5 competencies. Therefore, a normal conversation can assess a personality by connecting the language to specific Big 5 domains. The easy applicability makes the frame relevant for qualitative and quantitative research settings (Chernyshenko et al., 2018).

The unique base also eliminates a barrier between research subjects and the researchers. Primarily the case because research subjects stay within their language abilities and comfort. Moreover, the researcher can use natural language and translate it into a holistic personality describing frame (John et al., 1994). Such a language base creates downsides too. For example, the extreme uniqueness of data, depending on the research subjects usage of words and language (John et al., 1994; John et al., 2008). According to Chernyshenko et al. (2018), these benefits and limitations are balanced and summarise the Big 5 as managing (1) fidelity (descriptive specificity), (2) generalisability (easily accessible and measurable) and (3) bandwidth (freedom within the framework).

Ensuring the Big 5 balances these three components best, the five domains can differ in definition and explanation. Differences between the distinctive Big 5 models are slight but impactful (Chernyshenko et al., 2018). Such differences source in adaptations to a specific age group or sex (Schmitt, Realo, Voracek & Allik, 2008; Vecchione, Alessandri, Barbaranelli, & Caprara, 2012), cultural background (Goldstein & Brooks, 2005), language (Thompson, 2008) or general needs (Branje, Van Lieshout, & Gerris, 2007). An appropriate Big 5 frame for this research is by the OECD (Chernyshenko et al., 2018). They describe the framework in great detail. Moreover, it adapts to suit children's in- /formal education and fits scalable interventions (Borowski, 2019; Chernyshenko et al., 2018).

Figure 2.3.2 presents the OECD Big 5 consist of five domains and compound skills. The domains contain the following (Borowski, 2019; Chernyshenko et al., 2018; OECD, n.d.):

**Figure 2.3.2: Big 5 as defined by the OECD**



Source: Borowski (2019b, p 3).

- The **conscientiousness domain** includes persistence, dedication, effort to achieve personal goals. For example, it connects to self-control and discipline, which shows in greater identification with age-specific tasks.
- Openness to experience** describes the enjoyment of experimenting, stimulations, and more concrete characteristics like curiosity, imagination, or creativity. Often it is connected to behaviour like appreciation of art and aesthetic, self-reflection and the exploration of oneself and the world.
- The domain of **extraversion** is all about interaction and connection to others. That can include seeking contact with others, connecting, feeling confident and

comfortable around others. Moreover, it includes leadership tendencies. A high extraversion is also related to an enormous energy level and a high urge for the “zest of life”.

- **Agreeableness** compared to that looks more at the quality of interactions with others. It can include competencies like trust, respectfulness, modesty, cooperation, empathy. They show in behaviours, like seeing the positive or best about others or the situation.
- Lastly, the domain of **emotional stability** describes the steadiness of personality. That includes the ability to filter emotions, stress resistance or resilience.

As explained with the SEL competencies, are Big 5 interventions also highly impactful during the formative years due to the increased awareness of social roles (Schmitt et al., 2008; Vecchione et al., 2012). A study by Vecchione et al. (2012) did not only confirm that young adults (16-20 years) are highly formative. It also looked at how gender starts to impact development by assessing personalities based on the Big 5. Conscientiousness and openness to experience increased linear for males and females. Extraversion, on the other hand, stayed stable throughout. Therefore, interesting enough is a gender difference in the Big 5 competencies of emotional stability and agreeableness detectable. Emotional stability is stabilising in females while still increasing in males. Agreeability increases for both females four times as much as males (Vecchione et al., 2012).

Vecchione et al. (2012) also once more highlights the simplicity of the measurement but the grandness of its applying potential. Like Vecchione et al. (2012), many scholars see the great benefit of adaptability as well as concerns (Rammstedt & John, 2007; Thompson, 2008). That is not solely the case for the Big 5 framework but personality testing in general. Branje et al. (2007) and Nakaya et al. (2006) morally question how a tool can break down a complex construct like personality into universal and measurable portions? Although these critics exist, the same scholars also considered the tool beneficial (Chernyshenko et al., 2018; Vecchione et al., 2012).

## 2.4. Creativity as a tool

When talking about the development of SEL competencies as a tool for increased resilience, creative expression activities are considered a valuable and practical approach (Chernyshenko et al., 2018; Metzl & Morrell, 2008). That is because creativity and mindfulness are less invasive tools when working with people and oneself (Beauregard, 2014; Rousseau et al., 2004; Uptis, 2011). Even more so, when seeing art, not like pure born with talent but as a strategy and toolset. According to Nathan (2019) and Zimmerman (2009), art and creativity are developable. It is also a relevant skill set for everyone to change perspective on life, express oneself and communicate. It is not about creating a masterpiece but about applying creativity as a strategy and approach to life (Nathan, 2019).

Creativity is also seen as strengthening resilience. That is because art is an expression of existing information in a new or reshaped form (Metzl & Morrell, 2008; Richards, 2010), which is the same case for the earlier explained concept of resilience. Because as scholars like Manyena, O'Brien, O'Keefe and Rose (2011) describe, resilience is about adapting and reshaping oneself and the environment. A more concrete example of the connection is the Greek god Apollo, representing music, poetry, fine arts, and medicine. This god symbolised and contextualised the relation between art and healing (Puent, 2016). A connection that is also explored and applied by diverse professions like historians or philosophers. Despite the broad acceptance of the interconnection of creativity and resilience do scholars like Puent (2016), Rousseau et al. (2004) and Zimmerman (2009) rarely agree upon the definition, benefit, measurement or role of creativity as a tool.



These differences ground in the diverse definitions of art/creativity. The most common definitions see art as

- (1) a state of flow, where one is engaged, not too bored nor challenged (Nathan, 2019)
- (2) a tool for communication/expression and understanding (Coholic et al., 2012; Puent, 2016)
- (3) a room for problem-solving (Nathan, 2019; Zimmerman, 2009).

Nevertheless, it is needed not solely to focus on defining art but also to further research creativity's potential (Rousseau et al., 2004; Zimmerman, 2009). That transition connects creativity closer to the fields of sociology and psychology and therefore create new rooms of discussion (Puent, 2016).

Beauregard (2014), for example, agrees on the potential but sees a necessity for cultural adaptations, tailoring the whole activity/program design to participants. Contrary to that, a study by Rousseau et al. (2005) found little cultural difference while assessing the benefits of creative expression activities in children after migrating into a new living situation. Zimmerman (2009) also sees the need for cultural adaptation because of the diversity in perspectives. The study clearly identified that nations perceive the potential of creativity as a tool differently. Coholic et al. (2012) and Rousseau et al. (2005) generalised the difference in perception of creativity as a tool. Recognising that the more concrete and applied research of creativity as a tool gets, the harder it is to confirm and identify clear benefits and impact (Coholic et al., 2012; Rousseau et al., 2005). One representative example of that is the international comparative study by Beauregard (2014). The study assesses and compares the impact of a diverse selection of creative expression activities among children. In conclusion, some activities experience a significant increase in skill or attitude development despite a few exemptions, leading to mixed results. The difference in improvement across diverse activities appeared in broad concepts such as hope, resilience or self-esteem, and concrete ones like a lowered PTSD score (Beauregard, 2014).

As the concrete benefit and impact is discussable per intervention and per individual, an agreed-on broader sense of benefit exists. The benefits can occur on a skill level, like improved nonverbal and verbal communication or the attitude/behaviour level of relieving tension or express hidden wishes and thoughts (Upitis, 2011). A concrete example is a study by Shaheen (2010), showing that creativity is needed to ensure lasting economic stability and growth.

It is only possible to define generalised benefits, as concrete outcomes depend on the intervention design and the individuals partaking (Rousseau et al., 2004). So did, for example, a holistic art programme for young migrants identify unexpected parts of the workshops as most impactful and relevant (Coholic et al., 2012). The participants enjoyed and got the most out of the provided break time snack and the opportunity to meet other children who shared similar life experiences (Coholic et al., 2012). This study clearly shows that a creative intervention goes beyond the intervention activity itself. Additionally, it is about the surrounding environment and the whole journey.

Understanding the importance of the surrounding environment is often overlooked or excluded in research or intervention design and aligns with the most relevant issue concerning research about creativity as a tool. The biggest issue is a lack of clear descriptions of interventions and their surroundings. That makes it especially hard to compare interventions (Coholic et al., 2012). Other problems include the difficulty of creating longitude studies (Rousseau et al., 2005), the inclusion of control groups and the clear identification of the linkage between activity and behaviours/personality change (Beauregard, 2014). Moreover, there is a need for studies that directly compare the variations in outcome when applying differing creative tools (e.g., theatre and painting) (Beauregard, 2014). All lacking research is summarised in the broader issue of a need for more investigations in general (Coholic et al., 2012; Rousseau et al., 2005).

## 2.5. Peacepainting method

When applying the Big 5, SEL and resilience, it is essential to clearly define the research ground and show a solid understanding of the applied intervention, as Coholic et al. (2012) explained. In this research, the example of the *Peacepainting* method is explored. The method is designed and applied by the *Peacepainting* foundation, founded and located (headquarter) in the North of Norway. An independent running second location in Austria has adopted the method. Austria and Norway are the organisational hubs, whereas the workshops occur around the globe (until 2019, workshops were conducted in 19 countries) (Peacepainting, 2019).

The foundation works mainly with marginalised groups of all ages but especially children. Moreover, many participants are from disaster-drawn regions, have faced traumatic experiences, are neurologically atypical, migrants or small minority groups. Therefore, adaptability to the local needs and circumstances is crucial for the workshops. Each workshop adapts to the local needs and circumstances. That is why *Peacepainting* often collaborates with international partner organisations, which provide access to local target groups, whereas *Peacepainting* provides creative expression activities. Additional *Peacepainting* consults local and topical experts, such as special needs experts. All to best adapt to the environments and create a fitting workshop. The workshop size is flexible too, mostly between 15-20 people but changeable depending on the needs of the participants (Peacepainting, 2019).

Despite the differences in workshop conditions, the concept aligns with a structure and guideline. Therefore, all workshops include (Peacepainting, 2019):

- Initial inspiration: To get into a creative and expressive mood and mindset, participants talk about values, human needs, peace, or culture. It is a way to invite and introduce the participants to the workshop process and atmosphere. It is a time to calm down and open up. The discussed topics are later referred to when presenting the work, naming the art piece, and supporting the painting with an explanatory and expressive story.
- Painting: Giving the participants room to express inner thoughts and reflect on the outer world using creativity and painting. Diverse materials are provided. Facilitators support the free creative expression part of the workshop without giving clear and directive instructions.
- Equality through colours: When using diverse colours, diversity and equality are seen, learned, and experienced. It shows that beauty lies in variety. Each colour has a meaning, and that all colours are adding to this diversity. The meaning/diversity of colours is transferrable to the importance of individuality, diversity, and inclusion. The painting tools are used and explained similarly.
- Peace talks: Each participant gets the opportunity to share their interpretation of equality and peace. The goal is to listen as much as to talk. The focus lies on creating a safe space of sharing and experiencing that all opinions are valid and valued.
- Giving and Receiving: This is about giving back. Participants have the chance to decide if they want to keep the created painting or give it to *Peacepainting*. The paintings handed over to the organisation become part of a travelling exhibition. Many participants take the chance to create two art pieces to give one away and keep another.
- Gratitude: Identifying the gratitude of participants is used as a closing for the workshops. The experience of other international groups is shared. But more importantly, does the group create their holistic, unique and collective definition and message of peace, equality, values or human rights.

- Exhibition: Important to the workshop itself is the potential to exhibit the created artworks. For the individual participants, partner organisations and *Peacepainting* are an opportunity to spread awareness about peace and equality by showcasing donated art pieces. It is a way to get the voices of participants heard. Especially for marginalised groups, it is exhilarating to showcase their voice, picture and opinions showcased locally or even on an international level (Peacepainting, 2019; Peacepainting, 2020a).

## 2.6. Literature exploration conclusion

Resilience and 21<sup>st</sup> century skills describe a need for preparedness in a changing and increasingly demanding world (Chernyshenko et al., 2018). Scholars like Earvolino-Ramirez (2007) see resilience as developable, which is possible through focusing on SEL (Chernyshenko et al., 2018; Jones & Doolittle, 2017). SEL is a move away from cognitive skills, which is the focal point of formal education (Kautz et al., 2014). Instead, it moves towards competency-based learning. SEL can be concretely described and measured with the help of a Big 5 framework (Borowski, 2019) which is highly adaptable and makes personality research approachable and measurable. One example of this adaptation is the OECD Big 5 framework, which is especially valuable for this research, as it focuses on children and shares detailed scientific reasoning and explanation (Borowski, 2019). One way of supporting SEL and non-cognitive skills is creativity as a tool (Metzl & Morrell, 2008). The tool specifically looked at are the workshops by *Peacepainting* that apply painting as a tool. How the method relates to the concrete development of Big 5 competencies and, therefore, the broader concepts of resilience or 21<sup>st</sup> century skills are looked at in the theoretical framework exploration.

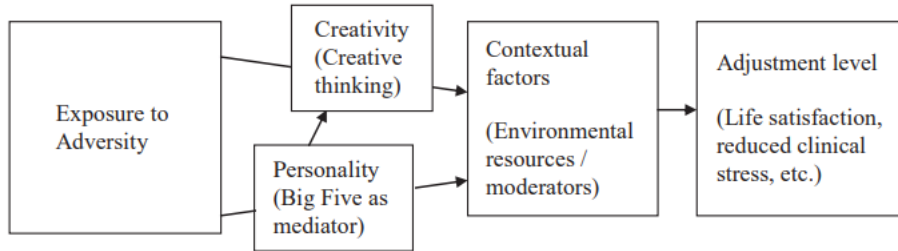
## 3. Theoretical framework

The method provided by *Peacepainting* connects to concepts like resilience, SEL, Big 5 and creativity as a tool. Despite “resiliency and creativity [being] complex phenomena that defy simplified definitions” (Metzl & Morrell, 2008, p. 313), a framework is needed to explore the interconnection. Both phenomena connect on the most basic level of description. Resilience is a skillset helping to bounce back from adversity and reshape oneself and the surrounding environment (Manyena et al., 2011). The skillset of creativity as a tool does the same by using existing insights and information and reshaping them into something different or new (Nathan, 2019; Schutte & Malouff, 2020).

Moreover, are these two aspects sharing a bidirectional relationship. According to Hallaert (2019), “the more creative one is, the more likely they are to possess resilience skills, and the less resilient one is, the less likely they are to have creative skills“ ( p. 337). That leads to the premise that creativity and resilience impact each other and are developable, for example, through interventions or therapy. Metzl and Morrell (2008) saw these connections and included creativity in an existing framework of resilience.

Figure 3.1 shows the product of this inclusion, the adaptive framework by Metzl and Morrell (2008). To ensure wider applicability, the creators Metzl and Morrell (2008) decided to focus on the broader concept of resilience, named exposure to adversity. Learning to handle and deal with adversity often leads to increased resilience, also named adjustment level. Therefore, they are in a problem-solution relationship where resilience is the solution and exposure to adversity is considered the problem.

**Figure 3.1: Theoretical framework combining resilience and creativity**



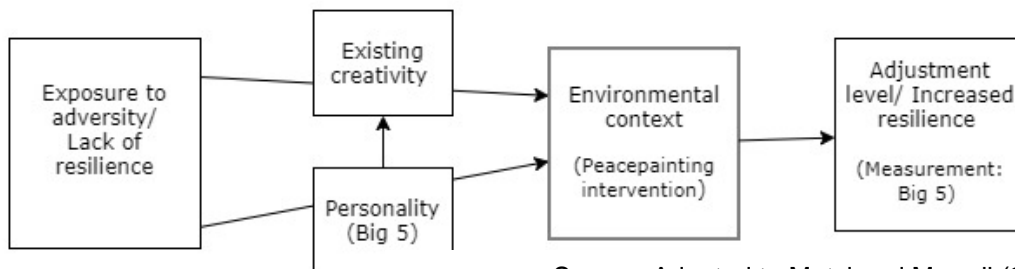
Source: Metzl and Morrell (2008, p 313).

All relevant journey factors in reaching the solution are identified, combining personality (described as Big 5) with creativity. Whenever facing life (adversity), a person brings personality (traits) into the situation. According to Goldstein and Brooks (2013), personality is impactful in becoming more resilient, and it is a skill set highly developable. Beyond that, this framework considers creativity the second influential aspect. It is considered a skillset and strategy which naturally exists in everyone. Creativity is also a strategy to increase resilience but is differently stimulated, strengthened and expressed per individuals (Rousseau et al., 2004).

The next step in the framework introduces the contextual environment (factors), where the two components (personality and creativity) are applied. That can be a person's natural environment (e.g., family, socio-cultural background) or unnatural environments like art therapy or creative expression interventions. Post context application (intervention, surrounding, therapy), the combination of personality, creativity and context can be evaluated through the level of adjustment. The adjustment is measurable through various tools like life satisfaction, resiliency scores or personality assessment.

Figure 3.2 showcases how the framework translates to this research. All predetermined factors, like measurements and simplified resilience term, are included in the Metzl and Morrell (2008) framework for clarity. In the case of this research, exposure to adversity translates primarily to an increased need for resilience. That is due to higher complexity and the faster-changing world, which creates this need for additional resiliency (Chernyshenko et al., 2018). Secondly, *Peacepainting* workshops are held with participants who face additional adversity. That can include being a migrant, facing a terminal illness or being neurologically atypical. Then personality and creativity get combined in the contextual environment of guided

**Figure 3.2: Adapted theoretical Metzl and Morrell (2008) framework combining resilience and creativity**



Source: Adapted to Metzl and Morrell (2008, p 313).

*Peacepainting* workshops. It is an environment that applies creativity as a tool in a space full of calmness, acceptance, freedom, support and guidance (Peacepainting, 2020b). Peacepainting has not measured the impact of their intervention (the contextual environment) on participants' skill and personality development. That is why the not defined level of adjustment is the focal point of this research.

The Big 5 frame by the OECD is applied to measure the not determined adjustment level (Beauregard, 2014) (see figure 3.2.1). It creates the opportunity for workshop facilitators to describe the level of adjustment in participants based on the five personality domains task performance, emotional regulation, collaboration, open-mindedness and engaging with others. Ensuring all aspects of personality are covered, the OECD model includes the three supplementary compound skills critical thinking, self-efficacy, self-reflection.

## 4. Objectives and research question

The literature exploration showed that the research ground is impacted by limitation, as explained in the literature review (see section 2) and the quality assurance section (see section 6 and Appendix III). Restrictive constraints unconfirmed singular agreed-upon definitions, a broad interpretation of concepts, and even lacking knowledge about limitations. These restrictions show again how the lack of academic validation is an immense problem impacting *Peacepainting* and connected fields. Conducting research adds to the general solution-finding process but does not narrow down the research scope. The explained framework, on the other hand, is an explicit indicator of scope. In the Metzl and Morrell (2008) framework, all components besides the adjustment level are predetermined for the *Peacepainting* method. It starts with an existing lack of resilience, from which personality and creativity are combined and applied in a contextual environment (*Peacepainting* workshops). The last element adjustment level describes the outcome post environmental context. That missing component is looked at in this research through the suggested Big 5 lens.

This summary of problem background and explored literature leads to the research objectives, which is transferrable to the research questions.

### 4.1. Objective

The objective directly derives from the problem, framework and available background information and translates into the main objective:

**The purpose of this research is to identify how creative expression workshops contribute to the development of OECD's Big 5 skills in children.**

The objective splits into two different angles for a more holistic research approach.

- Desk research that connects attitudes of the Big 5 to creative expression activities (painting)
- The perspective of workshop facilitators (*Peacepainting* in- and external) is explored through interviews, both looking at the development of OECD Big 5 competencies in children when participating in a creative expression workshop.

### 4.2. Central and sub research questions

Like the main objective is the central question connects to the available and existing literature and background information. Moreover, are the questions directly translated out of the research objective. The central question splits up into two supportive sub questions, which together can answer the central question.



Central question:

**How can creative expression workshops contribute to the development of the OECD Big 5 skills in children?**

The two sub-questions summative able to answer the central question are:

- Which OECD Big 5 competencies develop in children during a creative expression workshop, as perceived by workshop facilitators?
- What are OECD Big 5 skills developed during creative expression workshops according to academic literature?

## 5. Methodology

This research design focuses on answering the set questions and fulfil the defined objective. It addresses the general need for more academic validation and is designed to fit into the frameworks by MetzI and Morrell (2008). The clearly described design elements ensure that the research stays within the scope and the short time frame. The explored research design elements in this section include all relevant steps from data collection to quality assurance.

### 5.1. Data collection

The research uses triangulating, combining complementary primary and secondary data in a mixed-method research approach. The main focus of the methodology is on the perception-based qualitative method, which diversifies the insights through in-depth experience-based interviews. The interview outcome provides qualitative data. All secondary data used derives out of existing literature. The combination of the method is relevant to ensure a holistic result representation, despite the small sample group and time limitations. For a better understanding of the methodology, the design is shown per sub-question.

**Sub question 1: Which OECD Big 5 competencies develop in children during a creative expression workshop, as perceived by workshop facilitators?**

For each interview, two primary goals were set. First and foremost, explanations and description which can connect to one or multiple Big 5 domains. Secondly, to gather additional information and a precise portrait of the *Peacepainting* method. According to Coholic et al. (2012) and Rousseau et al. (2005), it is a necessary step to ensure comparability and reliability when working with creative expression interventions. If additional information arises during the interview, it is explored during the data analysis process.

The applied interview design is semi-structured, in-depth, and experience-based. This design is represented in the informal interview outline, as seen in Appendix IV. Such a design creates the necessary balance of structure and freedom. The structure ensures all relevant questions are asked by naming concrete fields of topics, expectations and example questions. At the same time, the informal part of the protocol allows for personal adaptation to the interviewees' environment, English level and openness to express. The freedom also ensures a natural flow of conversation, which engages workshop facilitators to share details.

#### Sampling

As multiple creative expression interventions are difficult to compare, the sampling could solely focus on the *Peacepainting* intervention. That is an appropriate step to ensure the reliability and comparability of this research. People relevant to the sample population must have experienced a *Peacepainting* creative expression workshop for children (age 4-12) in a supportive facilitating role. The defined age of the children's is kept relatively broad. That is because it is hard for facilitators to separate exact ages when referring to past workshops. Supportive roles include workshop moderators, part taking artists, special-needs

experts, or translator. Moreover, they can work for *Peacepainting* itself or a partnering organisation. The summaries selection criteria were speaking English, availability and facilitator experience.

The considered sample group is enthusiastic about *Peacepainting* and this research but small in number. All potential interviewees were contacted initially by D. A. Hudcová because of the already existing relationship to the interview subjects. After the initial request, responses were insufficient. That is why the independent Austrian *Peacepainting* organisation was contacted to increase the sample pool. Within the time restrictions and after initial inadequate responses, five fitting interviewees got selected. The interviews include four individual interviews and one group interview with eight people. In the group interview, the spotlight was laid on one workshop facilitator, while others only shared additional information when asked and to clarify statements. For security and privacy protection of the group interview, the contact was only possible over WhatsApp and was not recorded but instead summarised by the researcher and group.

### **Sub question 2: What OECD Big 5 skills are developed during creative expression workshops according to literature?**

The second part of this research includes desk research. Desk research is applied as a supportive method to the interviews to achieve a confirmative mass of information. Additionally, it is used to address contradicting information or arising questions. Moreover, it is an appropriate step due to the limited timeframe and small sample group. It also adds to the comparability and reliability of the research.

This increase appears because if similar interventions are looked at to confirm, explain or compose found insights, they are selected based on their similarity to the *Peacepainting* method. That is why they must include

- (1) a focus on the development in children
- (2) painting as the primary creative expression tool
- (3) at least one of the Big 5 domains or one of the sub-behaviours, attitudes or skills (see Appendix V).

The initial insights, limitations and background of the considered relevant literature are explored in Appendix VI. It is crucial to apply these particular selection points despite it limiting the amount of available literature drastically. Because according to Coholic, Eys and Lougheed (2012), it is challenging to compare creative expression initiatives as activity design is highly unique, and components are rarely concrete enough described to be compared.

## **5.2. Data Analysis**

The data preparation process of the interviews aligns with the one MetzI (2007) employs. It is applicable because it is an appropriate strategy, which researches a similar field and applies the same framework by MetzI and Morrell (2008). For more accessible information, the researcher transforms each interview into unified transcripts. That includes a coherent layout and an identification label. The interviewees' birthname get replaced by a non-binary name (Alex, Charlie, Frankie, Riley, Sam), which also anonymises the gender to eliminate gender biases. Moreover, do names instead of abbreviations ensure easier readability and create a story-like exploration of the data.

After that, the transcripts are deductive and inductively coded in the MAXQDA qualitative research analysis programme. Appendix VII shows the final coding three created for this research. The coding process starts with deductive coding by identifying *Peacepainting* workshop descriptions. That is relevant to get an even better understanding of the unique workshop design. According to Beauregard (2014) and Rousseau et al. (2005), it is a necessary step to ensure comparability of interventions and usability of data.

With the second read through the transcripts are coded deductively for OECD Big 5 descriptions and explanations. One of the most significant benefits of the Big 5 is that it originates in natural language (Kautz et al., 2014; Rammstedt & John, 2007). Natural language describes the normal way of talking and elaborating based on an interviewee's language skills and expressiveness. As the Big 5 builds upon such typical wording, it does not demand interviewees to know and use technical terms. That creates the possibility to connect personality describing text pieces directly to one or multiple OECD Big 5 domains. Personality descriptive can include explanations, descriptions and examples of behaviours, attitudes, or competency linked to the OECD Big 5 domains. For a more detailed overview of what text pieces are considered codable, see Appendix V. After connecting to the Big 5 domains, recurring themes are looked for per competencies. That describes grouping what workshop components stimulate the OECD Big 5 domains. Lastly, the transcripts were inductively coded by searching for other noticeable feature, including frequent mentioning or detailed descriptions.

### 5.3. Data representation

For a complete picture of the interview outcome, the coded transcripts are numerical analysed, and the content is explored and supported by literature, if applicable.

The numeric analysis is done complementary to the qualitative exploration. The Big 5 frame invites numeric analysis as the framework potentially applies in quantitative and qualitative research (Chernyshenko et al., 2018). Due to the small sample group and time limitation, the focus is on qualitative data. The frame still welcomes quantified data. That is because natural language can connect to specific Big 5 domains, meaning that the regular wording transfers to the Big 5 framework. By showing the deductive coding numerical, an overview of what workshop facilitators perceive as relevant and rememberable is included. It gives an idea of what domains facilitators are concerned with and are more visible stimulated throughout the workshops.

The numeric data derives from supplementary and credential counting, adding to the overall quality of this research (Hannah & Lautsch, 2011). Supplementary counting is considered an additional perspective on qualitative data analysis. According to Maxwell (2010), counting allows a holistic data representation by not cherry-picking confirming data and giving an idea of the amount of available information per code. Credential counting is concerned with representing interview details like codes per transcript. Besides adding to quality assurance, it creates a better overview of available data (Hannah & Lautsch, 2011).

Beyond the numeric data, the analysis focuses on the textual exploration of the interviews. To the qualitative data, the additional desk research is added in a supportive role. This part includes gained nuanced insights, examples and explanations per competency. The goal is to showcase and represent the stimulation per OECD Big 5 competency and the workshop aspects supporting the development. Afterwards, the results are critically discussed by focusing on specific workshop elements, like atmosphere or exhibitions. Additionally, are limitations and further research options explored in the discussion. Then the conclusion summarises, once more, the identified problem, research process, outcome, theoretical framework placement and gives the final answers to the research question.

## 6. Quality Assurance

It was essential to take proactive steps to increase credibility, transferability, dependability, and confirmability to assure high research quality.

The *credibility* of this researcher is supported throughout the whole research process. A triangulation combines interviews and supportive literature. The methodology is described in great detail and created after

speaking with experts in creativity and social work (focus on child development). All interviews are recorded and transcribed. The recording only starts if the interviewee gives consent. Additional notes of expressions, thoughts, insights, and emotions are marked in square brackets and added to the transcripts. Moreover, all interviewees have an anonymised non-binary name to blur gender norms and ensure a better reading flow.

The *transferability* of this research is to be expected relatively low. Mainly because of the incredibly diverse and small sample group. The diversity of the sample group also creates the potential of an instrument bias, which applies when individuals have a dissimilar language understanding, cultural background, and respondent style (Chernyshenko et al., 2018; Thompson, 2008). The interview outline does not consist of specific questions, which is one mitigation strategy. By providing only example questions, the researcher can better adapt to the interviewees English level and word usage. Moreover, transferability is already explored in the available literature, which shows that the lack thereof is a common problem when looking at creativity (Beauregard, 2014), resilience (Luthar et al., 2000) and social emotions learning (Berg et al., 2017). According to Coholic et al. (2012), it is relevant to define and explore used concepts clearly, apply frameworks and include a detailed literature exploration to ensure comparability.

The most supportive factor in ensuring the *dependability* of this research is the holistic look at the research ground. Moreover, the research is based on a theoretical framework, which scholars like Cameron, Moore, Montgomery and Stewart (2018) apply. The results are also explored numerical, through content assessment and elements of desk research. According to Hannah and Lautsch (2011) and Maxwell (2010), numeric analysis is a helpful step to ensure understandability, relate to the qualitative outcome, and adds another level of data interpretation.

*Confirmability* means minimising a persons and researchers biases. The interview structure lets the participants explore the topic in their own words and thought processes. Also, was the interview protocol adhered to despite the first interview already giving great insights. That ensured a similar interview structure and the continued freedom to explore the issues creating new insights instead of solely confirming insights. Applying the Big 5 frame can create interpretation bias. That is because the researcher interprets the interviews and connect specific text pieces to the Big 5 domains. A complete list explaining the levels of the OECD Big 5 is consulted while coding to limit the bias (see Appendix V). Moreover, is the quick Big 5 assessment tool by Rammstedt and John (2007) applied to identify the positioning of an interviewee if considered necessary (see Appendix VIII).

## 7. Research results

This research aligns with the framework by Metzl and Morrell (2008). The frame starts with the need for resilience. Then participants personality and existing skills connected to creativity are brought into a contextual environment. In this case, the environment describes the creative expression intervention from *Peacepainting*. The next step in the framework is to assess the impact of the intervention, also called adjustment level. Assessment is done through the OECD Big 5 framework lens and then connecting the stimuli to workshop components like painting or workshop atmosphere.

To remember the Big 5 includes five broad domains (Borowski, 2019; Chernyshenko et al., 2018; OECD, n.d.):

1. Openness to experience
2. Conscientiousness
3. Extraversion
4. Agreeableness
5. Emotional stability

Additional to that did the OECD define three compound skills. Done to present a more holistic frame, which covers all personality traits, attitudes and behaviours. The three compound skills are (Borowski, 2019; Chernyshenko et al., 2018; OECD, n.d.):

1. Critical thinking
2. Self-efficacy
3. Self-reflection

## 7.1. Numeric results

All explained, described and named words and phrases can be connected directly to at least one OECD Big 5 competency. Throughout the coding process, 160 connections were classified. The 160 connections are named but not given different weights. Table 7.1.1 visualises that more connections to Big 5 competencies (122) exist than compound skills (38).

**Table 7.1.1: Frequency overview Big 5 and compound skills**

> Big 5	6	31	20	39	26	122
> Compound skills	2	9	6	15	6	38
Σ SUM	8	40	26	54	32	160

It is relevant to put these sums in relation to the number of domains per group. The following calculation shows how the sums are made comparable.

Calculation: Average mentions per Code System

$$\frac{\text{SUM per code system}}{\text{Sub group amount of code system}} = \text{Average amount of subgroup mentioning per code system}$$

Example Calculation: Average mentions for the Code System Big 5:

$$\frac{122}{5} = 24.4.$$

For the compound skills, the same calculation leads to an average of 12.6 (38/3 = 12.6). If both averages are compared, it shows a doubled (2:1) likelihood of referring to Big 5 than compound skills. That means workshop facilitators spoke more about Big 5 and that the stimulation of Big 5 was perceived more visual.

When looking at compound skills and Big 5 domains separately, the division among the different sub-domains becomes clearer (see table 7.1.2). Opens to experience and extraversion are equally represented, with 31 identifications. Added together, they cover slightly more than 50% of the total identified Big 5 recognitions. Closely followed by agreeableness, then with some distance emotional stability. The least

frequent identified domain with some distance is conscientious, representing 10.65% of total Big 5 identifications.

**Table 7.1.2: Frequency overview Big 5 per interview**

Code System	Riley	Charlie	Alex	Sam	Fran...	SUM
Big 5						0
Openness to experience	1	6	3	13	8	31
Emotional stability	1	2	6	8	4	21
Conscientiousness		5	1	6	1	13
Agreeableness	2	5	6	4	9	26
Extraversion	2	13	4	8	4	31
Σ SUM	6	31	20	39	26	122



The 38 connections of compound skills distribute unequally among the three subdomains, as seen in table 7.1.3. Self-reflection with the highest number of recognitions (22) covers a total of 57.9% of connections, followed by Self-efficacy. Critical thinking is barely represented with 5 connections and not mentioned in the interviews with Riley and Alex.

**Table 7.1.3: Frequency overview compound skills per interview**

Code System	Riley	Charlie	Alex	Sam	Fran...	SUM
Compound skills						0
Self efficacy	1	1		8	2	12
Self reflection	1	6	6	5	4	22
Critical thinking		2		2	1	5
<b>SUM</b>	<b>2</b>	<b>9</b>	<b>6</b>	<b>15</b>	<b>7</b>	<b>39</b>

Table 7.1.4 shows the frequency division of competencies per interview for the Big 5 and the compound skills. Important to remember is that the interview design engages participants in a naturally flowing conversation because the natural language was necessary to connect the text pieces to the personality descriptive Big 5 frame. That leads to different length of the interviews and density of relevant information, mainly due to differences in English level, personalities, and cultural background. These points explain the difference in existing codes per interview.

Despite that, interviews with more or equal to 33 connectable explanations cover all domains (see table 7.1.4). Moreover, Charlie and Sam show a clear focus on specific domains. All other interviews show an equal spread across domains.

**Table 7.1.4: Frequency overview Big 5 and compound skills per interview**

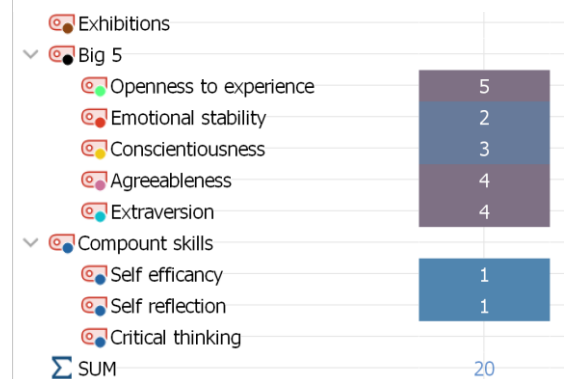
Code System	Riley	Charlie	Alex	Sam	Fran...	SUM
Big 5						0
Openness to experience	1	6	3	13	8	31
Emotional stability	1	2	6	8	4	21
Conscientiousness		5	1	6	1	13
Agreeableness	2	5	6	4	9	26
Extraversion	2	13	4	8	4	31
Compound skills						0
Self efficacy	1	1		8	2	12
Self reflection	1	6	6	5	4	22
Critical thinking		2		2	1	5
<b>SUM</b>	<b>8</b>	<b>40</b>	<b>26</b>	<b>54</b>	<b>33</b>	<b>161</b>

Through the step of inductive coding, the different Big 5 competencies are related to workshop components. Identifying what workshop components are assisting the stimulation of the specific domain. The workshop components identified (see Appendix VIII) and grouped are:

1. Atmosphere
2. Painting
3. Internationality
4. Exhibition
5. Topic exploration
6. Indirect engagement
7. Collaboration

However, the aspect of *Peacepainting* exhibitions revealed the most direct relevancy, as facilitators named this workshop component explicitly and in greater detail across all interviews, elaborated a total of 13 times. Especially interesting for exhibitions are text pieces that mention exhibitions simultaneously as Big 5 domains, as seen in table 7.1.5. It shows what personality descriptive domains facilitators relate to exhibitions. A high overlap exists with openness to experience, agreeableness and extraversion. That means facilitators perceive these domains as stimulated through exhibitions. It is important to remember that these domains were also the most commonly mentioned ones, therefore having a higher chance of overlapping.

**Table 7.1.5: Frequency representations of interconnection between Big 5/compound skills and exhibition**



## 7.2. Content analysis

This result section displays a detailed look at the textual looking at *Peacepainting* itself, the expected connection to the OECD Big 5 and the unexpected aspect of exhibitions. Represent per Big 5 domain results show the stimulation of the competency and relevant workshop aspects to achieve the development (e.g. painting as a tool, reflection). The workshop facilitators perspective is additionally supported by relevant literature if applicable and available.

### 7.2.1. Openness to experience

The perspectives of workshop facilitators split openness to experience into three factors. First of all, the inclusion of internationality seems to play an important role. By including diverse workshop facilitators, sharing experiences from global workshops, or the direct inclusion of culturally diverse participants creates, according to Alex, cultural awareness and understanding.

Secondly, according to Frankie, Charlie and Riley, the workshops create a free and relaxing space to learn and be oneself, which helps to stimulate openness to experience. For example, Frankie described the workshop as a place to be “free to do whatever”. A place where “everything was allowed. [Where] you are encouraged [to] try new colours, to be kids”. Frankie goes on to say that “a lot of materials, canvases, paintbrushes and paint [are provided as well as] an area to get messy, to experience and try out what you want, in a socially safe way”. Alex and Riley see it similar, connecting the created environment to freedom, relaxation, and breaking from society. Moore (2021) also summarises the environment saying, “coming to the canvas, stage, or instrument invites students to slow down, clear their heads, and figure things out” (Evidence, para. 1).

Lastly, the interviews tend to compare the *Peacepainting* intervention to informal art education. In “school or at home [you] perform art for others in a way but [at *Peacepainting* workshops] you could just do what you want and do not have to explain it too much” (Frankie). That giving a safe but free space in contrast to formal education is also shown in academic literature. Kaufman and Beghetto (2009), for example, described it as the mini c-creativity. Formal educations focus on Big C-creativity, which connects to perfection, grandness, and grading. Whereas mini c-creativity create room for unrestricted creativity, stimulating transformative learning (Kaufman & Beghetto, 2009; Merrotsky, 2013). According to Kaufman and Beghetto (2009), the mini level of creativity directly supports the Big 5 competency openness to experience in general and more nuanced aspects like exploring the unknown and active observation.

### 7.2.2. Extraversion

The domain extraversion focuses on connecting with others. It is about being social, expressive, assertive, and bringing high energy. The interviews showed a direct connection between increasing extraversion and the *Peacepainting* intervention design. Charlie shares the common problem of many shy participants having difficulties expressing their thoughts at the beginning of the workshop. To improve extraversion, facilitators engage with participants as intuitive and least invasive as possible, accompanied by moving away from direct questions. Instead, moving towards encouraging participants to talk, giving them small tasks or prompts. Sam also shares that it seemed like it was the first time somebody asked them to feel free to express themselves. That was highly welcomed and helped to engage more with the participants. The importance of a proactive approach and the pure room for expression is also what Kim (2015) considered immensely relevant. Especially by “allowing them to flexibly, symbolically, and visually express ideas” (Kim, 2015, p. 199).

At the end of the workshop, participants give their paintings a name and a short description. According to all interviews is an increased engagement in extraversion visible at the end of the workshops. That leads to detailed description, explanation, and poesy (Charlie). Like a young boy, who was initially shy but at the end opened up and explained proudly his painting which was "kind of a little monster, with a big red spot" (Charlie). These changes in extraversion are also due to the participants relaxing and getting more comfortable with time, unsure of substantial changes due to multiple workshops or changed workshop durations (Frankie, Riley).

### 7.2.3. Agreeability

Whereas extraversion considers the number of social connections, agreeability looks at the quality of interconnections (Chernyshenko et al., 2018). It combines aspects like altruism, affection, empathy, collaboration, and trust. These factors can be towards others and developed within a person. The holistic view on agreeability Alex summarised as a “strong connection to other participants is created as personality is showcased in a pure and relaxed situation while becoming part of the world and nature as well as part of the group and others.”

The combination of in- and external interrelation also means, according to Frankie, to meet new areas of the world, grow artistically and include creativity (painting) in communication. Because through the workshops, participants get “to see other artworks [...] done in workshops with other kids in other places of the world [they] have never even heard of” (Frankie). This deepening of relation also happens on a workshop level, explained by Riley as daring to open up, integrate well with others and create new social relationships. That has also been seen by Farrington et al. (2019) for painting and other creative expression methods like acting.

Also, as the workshops are collective experiences, that aspect of collaboration plays a role. Charlie remembered a young girl who did not draw herself but helped others, and that way started to open up. Sam shared a concrete example where a group “passed on the colours among themselves they were exchanging brushes according to what they were used for; they had a sense of unity”. This collaboration was nature born, created without pressuring the participant. The participating children in an art project in Korea did something similar as Kim (2015) identified. They engaged and started to cooperate more, based on the potential and room for self-chosen collaboration and less because of enforced teamwork (Kim, 2015).

Another interesting point of agreeability was strongest put by Frankie, who sees *Peacepainting* as a tool to help see and understand people because by "meeting them artistically you change your mind, getting to know them on a different level". Not purely "socially or know that a kid is really good in soccer or sports. But what painting they would produce" to express their story, values, dreams, or pure self. It describes a different type of connection leading immediately to a deeper understanding and connection to others and the group, the purest form of agreeability.

#### 7.2.4. Emotional stability

Summarised under emotional stability are facets like control, optimism, emotional awareness, stress resistance and responsibility. In creative expression intervention, stabilising emotions and character means that participants develop a sense of purpose or a personal vision (Heise, 2014). Workshop facilitators perceive such a development, where *Peacepainting* became a tool to express and stabilise emotions. Sam described it as "then you see the conditions they live in and the place the workshops took place. It was interesting and a little bit unbelievable for someone [...] from another country". For Sam, it led to being surprised by the acceptance of good and bad in the children's life. They painted happy and colourful pictures, expressing their idea of peace, dreams, values and idea. Sam perceived them just as happy to be engaged and excited for the opportunity to partake despite the workshop room or living conditions.

Moreover, interviewees saw the *Peacepainting* method as a supportive strategy during the workshops. According to Alex *Peacepainting* should be spread across the world because a tool to handle emotions becomes increasingly essential for everyone's mental health. That is the case because creative expression creates the time and room to understand oneself, which seemed for Alex especially relevant while growing up and experiencing stress. As Alex perceived the workshops as a stabiliser of emotions, it was also considered an outlet and learned strategy for the future. That also is the reason why "two paintings [are never] alike because [they are] always a unique representation of what is going on in that one moment" (Alex).

#### 7.2.5. Consciousness

It is a domain that looks at self-control, punctuality, investment, persistence, achievement, and responsibility, which is the numeric least represented Big 5 domain, excluding compound skills. If the interviewees mentioned consciousness, it mainly connected to pride participant's feel for their work. The pride connects mainly to *Peacepainting* exhibitions. After sharing the opportunity to exhibit the work, Sam was surprised to see how many were willing to gift their artwork to *Peacepainting*. The pure possibility to exhibit the art pieces across the globe created a rise in excitement, pride and self-confidence.

Beyond that, other components of consciousness, like punctuality, stay overlooked. Instead, aspect of freedom, relaxation and letting get continuously mentioned by all interviewees.

#### 7.2.6. Compound skill

**Creative thinking** stimulation in *Peacepainting* workshops primarily connects to the different topics discussed. Sam said that young participants are somewhat successful in creating a group concept of peace. However, creative thinking is perceived more as a by-product. Despite touching upon serious themes, the participants "decided how and to what extent they deal with a topic". Whereas existing literature shares a broader understanding, saying that creative expression always is a tool to develop the critical mind towards oneself, society, and the environment (Berg et al., 2017). They also see that the critical examination is even more remarkable when asked and introduced to a specific topic, more so if participants express

feelings and stories about themselves and the world. According to Heise (2014) and Marshall (2014), that leads to increased collective strength, courage, or community resilience.

**Self-efficiency** connects mainly to the facilitators and groups encouragement. Like stressing that no matter who a participant is, they are worth being listened to and deserve to be proud of themselves (Riley; Charlie). That was simulated across the workshops and throughout all activities and referred to in all interviews. Besides the broader mentioning, self-efficiency often connects to the art pieces themselves or exhibitions. In a way, the offer to exhibit the artwork transferred the idea of being listened to, being worthy, being seen and getting a stage to show the pure inner self. Hatami, Ghahremani, Kaveh and Keshavarzi (2016) were also able to detect a general increase in self-efficiency with the help of painting interventions. However, they were not able to connect this increase to specific parts of their workshop design.

**Self-reflection** again connects reflections about oneself and the surrounding. The *Peacepainting* workshops were considered the connecting piece from the inner to the outer world (Alex). Charlie described the discussed topics as "challeng[ing] your positioning in this world by painting the situation on the earth, painting what you think about the future [and] about now". It was not about scaring participants but creating a welcoming environment to reflect on oneself, the future, community and world. Multiple interviews shared that complex topics do not need to be directly introduced as participants naturally circle back to them (Charlie; Frankie). According to Charlie, the topics always get related to feelings, behaviour, human rights, and the needs shown in the Maslow pyramid. Kim (2015) experienced that too when assessing diverse art programmes in Korea.

### 7.2.7. Exhibitions

As well as numeric assessment is the contextual connection to exhibitions, showing the relevance of offering exhibitions. Charlie was lighting up, sharing how happy participants get when the idea of an exhibition gets introduced. The participants were perceived as an achievement and gaining self-respect. Frankie summarises the benefits of exhibitions beyond pride "It was very important to not just [be] introspective and look into yourself but also be able to express it back to your family and friends". This importance of showcasing the work surprised Sam, who said that more participants left the paintings with *Peacepainting* than expected. Instead of wanting them in their own home, the participants preferred the idea of the paintings, therefore a piece of them, travelling the world.

The wish to showcase personal work was closely looked at by Harman and Smagorinsky (2014). They identified that a public showcase adds self-confidence and pride by sharing, reimagining and reinterpreting personal, interpersonal, and institutional lives (Harman & Smagorinsky, 2014). According to Barber (2007), initiatives with youth are also relevant to express their ideas and cross the line of disconnect between adults and youth. The bridging of disconnect increases self-fulfilment and recognition in policies, rights, and the fight for equality.

### 7.2.8. Insights about Peacepainting

All interviewees expressed a strong belief in the *Peacepainting* method and activity design. Beyond that, there are minor disagreements about the topical focal point of a workshop, for example. Charlie sees sustainability, nature as the essential aspects. At the same time, Sam looks more at the concept of inner and outer peace, whereas Frankie sees painting itself as the most relevant aspect.



Moreover, was a common ground, a tight community feeling within Peacepainting. Many facilitators stay in a personal relationship with the Peacepainting founder, for example. Another connective factor was the aspect of painting. Many workshop facilitators are artists themselves and believe in the power of painting. Frankie even says that Peacepainting made them the artists they are today. Others are not artists but still believe in creativity as a tool.

## 8. Discussion

While addressing the identified problem of needed validation, the research specifically looked at an increased adjustment level (Big 5 stimulation) in children due to participating in creative expression workshops.

Workshop facilitators recognised a general stimulation of all Big 5 competencies, which translates to the increased adjustment level, also described as increased resilience. The counted coding results showed that workshop facilitators perceive the three domains openness to experience, extraversion and agreeableness as most visible stimulated. A detailed qualitative exploration of the five interviews and the supplementary desk research showed that the development of domains connects to specific workshop design elements. Commonly by facilitators referred to workshop components are atmosphere, painting as a tool and exhibiting art pieces.

The results found through this research are overall also seen in the literature. Academic literature on creative expression (painting) to develop children's personalities and create societal impact is extremely limited. However, similar results in interviews and literature are seen when applied as supplementary desk research. The pure difficulty to find relevant literature identifies once more the voiced need for additional research.

A closer look at the most relevant workshop design elements clarifies the overlap between the interviews and existing literature. The component of painting as a tool is considered highly formative. Facilitators described the aspect similarity to existing definitions of painting as a tool. They see painting as a way to communicate, as described by Coholic et al. (2012) and Puent (2016), a place to deal with global issues like peace or equality (Zimmerman, 2009). Moreover, facilitators perceive it like Nathans (2019) definition, which turns painting into a stage of being with oneself and the surrounding environment. Two other aspects of creativity stressed by the interviewees but rarely focused on by scholars are painting as an approach to life and a tool to connect. These differences relate to a general variation in perspective on creativity. Whereas literature tends to focus on the benefits of painting as a tool for oneself (Puent, 2016), the interviews identified a broader connection. Facilitators interrelate painting on a global level by collaborating with international partners, facilitators and participants, and addressing global issues. If the aspects of painting are translated to the OECD Big 5 domains, facilitators mainly see connections to agreeability, openness to experience and emotional stability.

Another point connected to multiple domains is the workshop atmosphere, which facilitators perceive as stimulating opens to experience, extraversion, agreeability and all compound skills. The components relevant to create a supportive environment are value and feeling orientated, including vague depictions like free, relaxing, engaging, supportive, exploratory, worthiness and heard. Description of the atmosphere concerned the whole workshop journey and not purely the main activity of painting. Existing literature, on the other hand, focuses mainly on non-environmental factors. That is why Coholic et al. (2012) were surprised that lunch was more impactful to create a connection between children than the carefully designed inclusive teaching method. Still, Beauregard (2014) and Coholic et al. (2012) see the importance of not solely focusing on researching the method (painting) components but also the pre- and post-workshop conditions as well as workshop atmospheres. Defining surrounding elements and atmosphere characteristics is extremely difficult to contextualise because it is highly perceptive, value and feeling based. These

difficulties make a reliable depiction rarely possible. However, according to Beauregard (2014) and Coholic et al. (2012), that does not minimise the need for further research of intervention atmospheres.

The last independent aspect of activity design considered relevant is showcasing the work. The relevance of this component was unexpected. Most of the time, researched painting interventions solely look at the painting process but not at the workshop environment nor what happens with the created art pieces. When mentioned at all by scholars like Hatami et al. (2016), the benefits of exhibitions are considered a by-product. On the other hand, interviewed workshop facilitators already perceived a change of attitude by the pure possibility of showcasing a representation of the inner self of participants. Also are the benefits of exhibitions connected to all domains, mainly the competencies consciousness, compound skills, opens to experience and agreeability.

Beyond the results on Big 5 stimulation and therefore increase resilience, a more detailed description of the *Peacepainting* method itself was needed. Existing literature and interviews created additional insight into the method itself. According to Rousseau et al. (2005), it is a necessary step to create the opportunity to compare the method with other creative expression initiatives in further research and put the outcomes into perspective. Moreover, a direct assessment with the SAFE frame by Durlak et al. (2011) becomes possible and creates a validation option of the *Peacepainting* method as a whole.

*Peacepainting* interventions are (S) sequenced. All activities connect to the central point of painting and include additional reflection, topic discussion, and exploration of topics like equality and diversity. A lot of (A) active learning is included, for example, by the focus painting. Moreover, minor pro activities include learning about equality with the help of colourful woollen balls. *Peacepainting* workshops also work towards a concept more (E) explicit than a positive development. The intervention applies informal education to support resilience or 21<sup>st</sup> century skills. Only the (F) frequency of the SAFE design is hard to define. The F stands for sufficient availability of time to develop the skills. That is hard to assess because the results show that stimulations in OECD Big 5 competencies and compound skills are seen. However, the impact of a changed time structure is unknown but relevant to research to ensure the best effectiveness. Especially as *Peacepainting* currently adapts time and repetition based on project scope instead of basing it on effectiveness. The hard to define F is a problem for the *Peacepainting* and disagreed among scholars alike (Chernyshenko et al., 2018; Luthar et al., 2000; Upitis, 2011).

Beyond the unidentified frequency, the workshop structure changes in group sizes, target groups, and working environments. Also, is the workshop method interpreted differently by facilitators. Despite the general workshop flow, minor aspects like topical focus are exchangeable. External partners and funders influence these minor aspects additionally. Interviewees and literature stress the individuality of each intervention as well as the individual effectiveness of the toolset creativity because interventions are not similarly stimulating for all participants. Individuality leads to less comparability of the *Peacepainting* especially and creative expression methods in general. It also creates a problematic balance of generalising benefits for a group and concrete impacts on the individual. According to scholars, the limitation of individuality in connection to resilience (Luthar et al., 2000), SEL (Chernyshenko et al., 2018), and creativity (Beauregard, 2014) research will only revolve once enough academic literature is available.

Thompson (2008) and Vecchione et al. (2012) agree with that and stress the need for direct assessment of creative expression (SEL) interventions. However, due to the COVID-19 crisis and limited time, the methodological choices of direct involvement were constrained. That is why workshop facilitators are involved instead of directly engaging with participating children. Given the scope of this research, facilitators are a reasonable sample group as they are experienced and easily accessible. Still, a more direct assessment like Rammstedt and John (2007) suggest is relevant for *Peacepainting* workshops and the field of creative expression. That aligns with the general connotation of a need for more validation. While this

small-scale research created great insights, it solely adds to the research journey of *Peacepainting*, creativity as a tool and social emotions learning.

Diverse further research is still needed. Interesting would be a quantitative assessment of the *Peacepainting* interventions to show created impact through a different perspective. Another need is to conduct further research in the field when specifying the background (e.g., cultural, social, economic), as claimed by Beauregard (2014) or Berg et al. (2017). Moreover, the general lack of activity component assessment in informal education, SEL, and creativity makes a concrete look at elements like exhibitions or workshop atmosphere relevant to identify impacts and benefits on a personal and societal level.

## 9. Conclusion

Reminded of the research question, it becomes clear that there is no simple answer to the main research question

### **How can creative expression workshops contribute to the development of the OECD Big 5 skills in children?**

The creative expression workshops provided by *Peacepainting* show a general stimulation of OECD Big 5 competencies in children. That shows through the interviews, as well as the supportive literature. Nuanced benefits of the *Peacepainting* methods are harder to grasp. After self-participating as a child, Frankie described the workshops as formative till this day, despite being too young to grasp what they change and achieve. It is difficult to grasp, even with this research. That is also a clear sign of the gravity of the identified problem, which describes the need for additional validation. It shows that this research is only another step in the validation journey of social emotional learning and creative expression.

Whereas the *Peacepainting* workshops are influential for Frankie as a person and artist, it is essential to remember that the effectiveness of creative expression intervention depends on the individual participants. That was seen not only by scholars like Goldstein and Brooks (2013), John et al. (2008) and Luthar et al. (2000) but also constantly reconfirmed by the interviews. Beyond individuality, there are some impacts, which the interviews and literature generalise. The most referred to Big 5 domains by workshop facilitators are openness to experience, extraversion and agreeability. Besides the pure quantity of domain naming, each connects to specific workshop components that support the stimulation of the OECD Big 5 domains. Together that proves creative expression interventions (*Peacepainting* method) to some extent beneficial in stimulating the OECD Big 5 in children, according to the perception of workshop facilitators.

Moreover, this research shows concrete *Peacepainting* workshop elements as stimulating personality development. Workshop facilitators saw great relevance to aspects like internationality, exhibitions and the workshop atmosphere. Scholars often overlook these intervention components (Coholic et al., 2012). On the other hand, facilitators perceive great relevance in exhibiting participants art pieces and the surrounding atmosphere. Further research assessing specific intervention components, especially the workshop atmosphere, is needed.

The identified stimulation of OECD Big 5 domains also means that the new needed skillset is further developed, whether described as resilience, 21<sup>st</sup> century skills, or adjustment skills (Berg et al., 2017; Park, 2018). This increase is helpful when facing adversity like a faster changing world or concrete adversity like illness. However, it is essential to remember that adjustment level, resilience and OECD Big 5 skills are not set in stone. Instead, these aspects of life and personality change. They follow ups and downs and depend on in- and external changes and developments. Nevertheless, the stimulation of OECD Big 5 remains a positive advancement but is not the end of a development journey.

## 10. Cross organisational relevance

As a provider of a service, *Peacepainting* often collaborates closely with local partners. These partners bring in regional expertise to ensure local adaptability. By adding to the validation of the *Peacepainting* method, the partnering organisations are supported too. An example is a current collaboration with children from the Roma community in Albania or the planned work with the Firefly organisation in Croatia (working with children facing cancer and their surrounding environment (e.g., parents, classmates).

There is also a broader benefit of this research. As stated in the field trends (see Appendix II) and the problem description (see section 1.4), scientific research is needed in the creative sector. By publishing the work in the *Peacepainting* network, it will reach others within the field.

Cross-organisational elements are a part of the research itself. Creativity and social work experts were informally consulted to support the problem identification and research strategy definition. Additionally, this outreach supports the trustworthiness of this research, a more precise definition of the research ground and feasibility of data collection. The consulted experts include

- A. Lohay: A young professional expert in the study of art and art interpretation
- L. Konur: Social worker with the focus on child supportive learning environment (e.g., Kindergarten, early childcare)
- K. Sack: Social worker with extensive knowledge of inclusion and learning strategies.
- A. Priemer: Coach for students and teachers in the realm of alternative education opportunities.

## 11. Professional Product application

For the in-company mentor, it is essential that the product centres around academic literature and applied research rather than a defined product type. That is because the professional product (PP) is a (nice to have) addition to the concise research report (CRR) in general. The audience for the PP includes sponsors, companies and organisations interested in *Peacepainting* and wanting to get a little more information on what *Peacepainting* does and the conceptual academic background of the method. That is why the PP is research-based but presents easily digestible information. To ensure that the report does not strictly follow WHC writing guidelines in style and format but focuses on readability, visual appeal and engagement.

The concrete aspects included in the PP are:

- Showcasing the need for informal education and innovative interventions
  - The problem *Peacepainting* and creative expression interventions face
- 
- Background of *Peacepainting* including a description of the activity design
- Steps that add to the validity of creativity as a tool and the *Peacepainting* method
  - Exploring: Resilience, SEL, creativity as a tool and equality
  - Inclusion of the research represented in this report
    - Research ground
    - Key takeaways
- Concrete *Peacepainting* projects
  - SDG connection
  - Descriptions

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## Appendix I: SDG goals

Table I.I: Relevant SDG goals, targets and indicators

	Goal	Target	Indicator
General Peacepainting impact	4 Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	4.4. By 2030, this will substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, employment, decent jobs, and entrepreneurship.	4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill
		4.7. By 2030, ensure that <b>all learners acquire the knowledge and skills needed to promote sustainable development</b> , including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development	4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment
Additional impact Firefly example	4 Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	4.5. By 2030, <b>eliminate gender disparities in education and ensure equal access</b> to all levels of education and vocational training <b>for the vulnerable</b> , including persons with disabilities, indigenous peoples, and children in vulnerable situations	4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile, and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated
	16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	16.b. Promote and <b>enforce non-discriminatory laws and policies for sustainable development</b>	16.b.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law

Source: United Nations (2020a) and United Nations (2020b)

## Appendix II: Field trends

**Table II.I: Field trend description**

No.	Trend	Description
<b>1</b>	<b>General</b>	
1.1	Increased complexity and connectivity	There is increased connectivity and interconnectivity, physical distance disappears, and change seems to speed up. Moreover, the world is turning into a more complex place (Gaub, 2019). Our current approach to these changes shows increased risks and vulnerabilities (Goldstein & Brooks, 2013). The changes are impactful across all sectors, including creativity and education.
<b>2</b>	<b>Education</b>	
2.1	New work and life skills	In general, trends see education moving from traditional knowledge towards more skill-based learning (Schleicher, 2019). We become less likely to hold a lifelong job, for example. Instead, we need to adapt and transform constantly. The following represent a variety of frequently mentioned elements of future learning: <ul style="list-style-type: none"> <li>• Learning to use scientific and technical skills (e.g., understanding the tools/technology of our time) (OECD, 2019; Schleicher, 2019)</li> <li>• Learn to learn, to ensure lifelong learning across ages and field (Azoulay, 2017; OECD, 2019)</li> <li>• Develop a reflective understanding of oneself &amp; surrounding (OECD, 2019)</li> <li>• Supporting thinking, knowledge, skills and movements towards active change and sustainable development (OECD, 2019)</li> <li>• Encourage innovation by supporting the skills connected (e.g., creative thinking, multi-disciplinary approaches) (OECD, 2019; Nathan, 2019)</li> <li>• Wellbeing of the body &amp; mind across age/development (OECD, 2019)</li> <li>• Network-based living, learning and working increase relevance for skills such as creativity and listening (Azoulay, 2017)</li> </ul>
2.2	Types of education	The OECD (2020) created four radical scenarios for schooling in the future: <ol style="list-style-type: none"> <li>1. Structure and process stay the same while individualising and internationalising schools</li> <li>2. Outsourcing schools from the governmental arm and moving them towards a technology-driven, diverse, and flexible private sector</li> <li>3. Turning schools into learning hubs by including private and public sector, focusing on developing social innovations and civil engagement</li> <li>4. The barriers between formal and informal education break down, and society turns into one learning body</li> </ol>
2.3	The downward spiral of education	“Our future is determined by the success or failure of our efforts to prepare children” (Goldstein & Brooks, 2013, p. 508). The book by Goldstein and Brooks (2013) moves one by describing that we see a decline in the resilience and readiness of children. Visible in increasing mental health issues. Without radical changes, the distance between preparedness and current actions increases.
<b>3</b>	<b>Creativity</b>	
3.1	Right of creativity (expression)	The ability to express an opinion creatively deserves protection, being considered a human right. Especially with the latest uprisings of authoritarian movements protecting this right becomes challenging and shows limitations of current rules and regulations (inter-/national) (Azoulay, 2017).



## Appendix III: Additional limitations

Initially, the goal was to involve the target group (children) directly, which is seen as extremely valuable by experts in the field (Chernyshenko et al., 2018; Durlak et al., 2011). That is difficult due to the current COVID-19 pandemic. Only a few to no *Peacepainting* workshops are conducted, making direct evaluation and observations during a workshop impossible. Despite that is the offline contact with past workshop participants limited due to social distancing. Additionally, *Peacepainting* lacks contact details from past participants and/or their guardians/parents. Indirect online engagement with the children is inadvisable because of the lack of English language skills. Parents of participating children are not part of the sample group due to similar reasons. Instead, workshops facilitators are consulted due to their experience and expertise.

During a workshop, the participating children create art pieces with descriptions that are partially digitalised. That is a solid, extensive and informative data set. However, after consulting experts of art interpretation, social work and art history, it became clear that a painting analysis, in this case, is unreliable and misleading. Moreover, assessing the paintings implicates a random perception and interpretation-based judgement/assessment (A. Lohay personal communication, March 1, 2021; L. Konur personal communication, February 20, 2021). That goes against the *Peacepainting* philosophy. For the foundation, painting is highly personal and a tool to express and learn instead of perfecting a skill.

## Appendix IV: Interview outline

Date:

Respondent abbreviation:

Respondent name:

The researcher conducting the interview: Fiona Bauhofer

### Interview overview:

This interview aims to identify the development of OECD competencies through creative expression workshops through the eyes of collaborating partner organisations. The goal of this interview is to obtain sufficient information to answer the main research question. The findings will translate into the CRR and the professional product.

With the interviewee's consent, the conversation is recorded as supporting material. That increases the reliability by being able to listen back to the conversation. It also ensures that the researcher can stay engaged within the conversation. Additional to that are notes taken during the interview. This is done to support the active listening process and remembering additional questions.

The expected duration of the interview is 30 minutes.

This interview protocol is a preliminary version of the interview, used as a guiding outline. It is a point of orientation but modifiable during the semi-structured interview. Initially, the researcher introduces herself and the research. Then the interviewee gets the space to introduce him/herself and their relation to *Peacepainting*. The questions are divided by topic and will follow a funnel approach, meaning the questions will begin broad and progressively become more specific regarding the topic.

The goal is to entice the interviewee to share experiences, expertise, thoughts, and perceptions. That is done through active listening, asking additional questions and the creation of a safe space. When all topics are touched upon, the interview is closed off by thanking the interviewee and explaining the future steps.

### Interview outline:

1. Welcome and Small talk
2. Consent for recording the interview
3. Introduction about the research
  - a. Introduction researcher
  - b. Topic introduction
  - c. Goal of the interview
4. Introduction of interviewee
  - a. Please elaborate on the organisation they are working for
  - b. Are they working with a specific target group?
  - c. Were they present during the workshop?
5. What is their relation to *Peacepainting*?
  - a. Past/future projects?

**Table V.I: Informal Interview outline**

No	Theme	Representation (Type) of data	Wanted/ expected outcomes	Example question	Relevance
<b>1</b>	<b>Creative expression method exploration</b>				
1.1	Peacepainting work description	Descriptions, Topic definition,	Descriptions, Factors and Facets	How would you describe the work of Peacepainting?	Clarity of creative expression workshops as a method
1.2	Creative expression workshop description	Descriptions Topic definition	Descriptions, Steps, Examples	How would you explain the workshops Peacepainting conducts?	Clarity of creative expression workshops as a method
<b>2</b>	<b>Workshop impact (attitude, feelings, skills, behaviour, approach etc.)</b>				
2.1	Workshop participants <b>at the start</b> of the workshop	Naming, Descriptions Exploration, Explanations,	Skills, Competencies, Attitudes, Feelings, Behaviours	<ul style="list-style-type: none"> <li>How are individuals/group behaving in the workshop stage?</li> <li>What behaviour do the group and individuals display in the workshop stage?</li> <li>What difficulties do you see in individuals/group throughout the workshops?</li> </ul>	Relatable to OECD Big 5 competencies
2.2	Workshop participants <b>during</b> the workshops				
2.3	Workshop participants <b>at the end</b> of the workshop				
2.4	Workshop participants <b>post-workshop</b>				
2.5	<b>Summarised:</b> What changes are perceived in children throughout the workshops (pre-post)	Naming, Explanation, Summaries	Skills, Competencies, Attitudes, Feelings, Behaviours	What changes in behaviour can be seen in the individual/group	Relatable to OECD Big 5 competencies
<b>3</b>	<b>Example</b>				
3.1	Sharing a concrete example of a child (not) changing throughout a workshop (pre-post)	Exploration, Explanation, Details, Depictions, Descriptions, Reasons	Skills, Competencies Changes, Attitudes, Developments, Behaviour	What concrete example do you remember of a group or participant that did (not) change behaviour throughout a Peacepainting workshop?	Relatable to OECD Big 5 competencies
<b>4</b>	<b>Role of surrounding (impact, influence, reach, relevancy etc.)</b>				
4.1	Facilitators	Exploration, Explanation, Details, Depictions, Descriptions, Reasons, Connections	Impact, Influence, Reach, Relevancy, Relation to participants	<ul style="list-style-type: none"> <li>What supported the change of behaviour in participants/groups?</li> <li>What influence have facilitators/exhibitions/group environment on the participants?</li> </ul>	Impact exploration of surrounding environment on OECD Big 5 competency development
4.2	Exhibitions/final product				
4.3	Group environment				

6. Concluding and Gratitude
  - a. Any questions
  - b. Next steps

## Appendix V: OECD Big 5 division

Table IV.I: OECD Big 5 explanation 1

"BIG FIVE" DOMAINS	SKILLS	DESCRIPTION	BEHAVIOURAL EXAMPLES
OPEN-MINDEDNESS (Openness to Experience)	CURIOSITY	Interest in ideas and love of learning, understanding and intellectual exploration; an inquisitive mindset.	Likes to read books, to travel to new destinations. Opposite: dislikes change, is not interested in exploring new products.
	TOLERANCE	Is open to different points of view, values diversity, is appreciative of foreign people and cultures.	Have friends from different backgrounds. Opposite: dislikes foreigners.
	CREATIVITY	Generating novel ways to do or think about things through exploring, learning from failure, insight and vision.	Has original insights, is good at the arts. Opposite: seldom daydreams, dresses conventionally.
ENGAGEMENT WITH OTHERS (Extraversion)	SOCIABILITY	Able to approach others, both friends and strangers, initiating and maintaining social connections.	Skilled at teamwork, good at public speaking. Opposite: avoids large groups, prefers one-to-one communication.
	ASSERTIVENESS	Able to confidently voice opinions, needs, and feelings, and exert social influence.	Takes charge in a class or team. Opposite: waits for others to lead the way, keeps quiet when disagrees with others.
	ENERGY	Approaching daily life with energy, excitement and spontaneity.	Is always busy; works long hours. Opposite: gets tired easily.
COMPOUND SKILLS	SELF-EFFICACY	The strength of individuals' beliefs in their ability to execute tasks and achieve goals.	Remains calm when facing unexpected events. Opposite: avoids challenging situations.
	CRITICAL THINKING/ INDEPENDENCE	The ability to evaluate information and interpret it through independent and unconstrained analysis.	Good at solving problems, at ease in new and unknown situations. Opposite: dependent on others' guidance.
	SELF-REFLECTION/ META-COGNITION	Awareness of inner processes and subjective experiences, such as thoughts and feelings, and the ability to reflect on and articulate such experiences.	Good exam preparation strategies, able to master skills more effectively. Opposite: over- or under-estimates time needed for exam preparation or project completion.

Source: OECD (n.d., p 9).

Table II.II: OECD Big 5 explanation 2

"BIG FIVE" DOMAINS	SKILLS	DESCRIPTION	BEHAVIOURAL EXAMPLES
TASK PERFORMANCE (Conscientiousness)	ACHIEVEMENT ORIENTATION	Setting high standards for oneself and working hard to meet them.	Enjoys reaching a high level of mastery in some activity. Opposite: uninterested in career development.
	RESPONSIBILITY	Able to honour commitments, and be punctual and reliable.	Arrives on time for appointments, gets chores done right away. Opposite: doesn't follow through on agreements/promises.
	SELF-CONTROL	Able to avoid distractions and focus attention on the current task in order to achieve personal goals.	Doesn't rush into things, is cautious and risk averse. Opposite: is prone to impulsive shopping or binge drinking.
	PERSISTENCE	Persevering in tasks and activities until they get done.	Finishes homework projects or work once started. Opposite: Gives up easily when confronted with obstacles/ distractions.
EMOTION REGULATION (Emotional stability)	STRESS RESISTANCE	Effectiveness in modulating anxiety and able to calmly solve problems (is relaxed, handles stress well).	Is relaxed most of the time, performs well in high-pressure situations. Opposite: worries about things, difficulties sleeping.
	OPTIMISM	Positive and optimistic expectations for self and life in general.	Generally in good mood. Opposite: often feels sad, tends to feel insecure.
	EMOTIONAL CONTROL	Effective strategies for regulating temper, anger and irritation in the face of frustrations.	Controls emotions in situations of conflict. Opposite: gets upset easily; is moody.
COLLABORATION (Agreeableness)	EMPATHY	Kindness and caring for others and their well-being that leads to valuing and investing in close relationships.	Consoles a friend who is upset, sympathises with the homeless. Opposite: Tends to disregard other person's feelings.
	TRUST	Assuming that others generally have good intentions and forgiving those who have done wrong.	Lends things to people, avoids being harsh or judgmental. Opposite: is suspicious of people's intentions.
	COOPERATION	Living in harmony with others and valuing interconnectedness among all people.	Finds it easy to get along with people, respects decisions made by a group. Opposite: Has a sharp tongue, is not prone to compromises.

Source: OECD (n.d., p 8).



## Appendix VI: Comparative intervention insights

**Table VI.I: Article background, key initial insights, and limitations.**

Article background	Key insights	Limitations
Marshall, L. (2014). Art as peace building. <i>Art Education</i> , 67(3), 37-43. doi: 10.1080/00043125.2014.11519272		
From an art educator's perspective Focus on art and painting in the formal education sector Written by an art advocate	Art is a representation of the inner workings of students (seeing personal struggles) Art reshapes the conflict experienced in school and daily life Art transfers to other places like community Creating art together in classrooms or when evolving community	Highly emotional charged paper Based on the educator's perspective
Heise, D. (2014). Stealing and resilience in art education. <i>Art Education</i> , 67(3), 26-30. doi: 10.1080/00043125.2014.11519270		
Focus on benefits of art to foster resilience Painting used as an example Applied to education settings and non-education settings Focus on children (students) Reviewing and reassessing existing interconnections and studies	Art is therapeutic Art is beneficial to support resilience Art as a tool of stealing (to fill with determination and resolution) Creativity translates to coping skills Creativity is a tool of expression	Main focus stays on resilience
Hatami, F., Ghahremani, L., Kaveh, M. H., & Keshavarzi, S. (2016). The effect of self-awareness training with painting on self-efficacy among orphaned adolescents. <i>Journal of Practice in Clinical Psychology</i> , 4(2), 89-96. doi: 10.15412/J.JPCP.06040203		
Focus on self-awareness as the base of emotional restraint and control a semi-experimental randomized controlled study Age group assessed orphaned adolescence	The painting self-awareness training led to increased self-efficiency Effects visible at last (6 weeks after) post-intervention assessment Painting component of the trained more enjoyed and accompanied by higher engagement than the initially used educational props Painting gives a deeper insight into the artist (alternative tool of expression) Painting is a claiming activity	Small sample group Narrow focus
Kim, H. (2015). Community and art: Creative education fostering resilience through art. <i>Asia Pacific Education Review</i> , 16(2), 193-201. doi: 10.1007/s12564-015-9371-z		
Focus on community-based art education Art as a tool to address school violence	Community art projects helped victims and perpetrators of school violence to create a happier school culture and reduce school violence Direct connection of resilience and art Painting as a strategy to address psychological, social and cognitive health Art as a tool to problem solve The diversity of art develops concrete skills like usage of paint as well as transferable skills like alternatives to communicate Art education is not solely expressing thoughts but character training helping to turn adolescence into well-rounded individuals	Lacking environment description Little elaboration of the used painting method

<p>Harman, R., &amp; Smagorinsky, P. (2014). A critical performative process: Supporting the second-language literacies and voices of emergent bilingual learners. <i>Youth Theatre Journal</i>, 28(2), 147-164. doi: 10.1080/08929092.2014.956956</p>		
<p>Focus on LatinX background Exploration of daily issues and discrimination Tool of expression is open (including acting, painting)</p>	<p>Engage and connect with oneself, others and the presented topics. Due to limitations in everyday conversations due to low English level, a flourishing of participants because of the alternative of expression. Getting head and the ability to express translate to self-confidence, efficiency and pride. Increased pride translated to higher ambitions, like telling the mayor about daily discriminations. Considered highly influential is combines time for participants to explore on their own and determining items for collaborative explorations and creation. The workshop environment is seen as influential of the learning journey Need for such alternative education methods in the regular classroom setting, to ensure skill development of all students</p>	<p>Cultural impact is explored in great detail, as well as the individuality of participants Workshop atmosphere is seen as essential, but solely shortly explored.</p>
<p>Farrington, C., Maurer, J., McBride, M., Nagaoka, J., Puller, J., Shewfelt, S., Weiss, E., &amp; Wright, L. (2019). <i>Action reflection arts education and social emotional learning outcomes among K-12 students: Developing a theory of action</i>. Retrieved from: <a href="https://consortium.uchicago.edu/publications/arts-education-and-social-emotional-learning-outcomes">https://consortium.uchicago.edu/publications/arts-education-and-social-emotional-learning-outcomes</a></p>		
<p>Written for a formal education setting Approaching art education for SEL development Focus on diverse methods (nicely grouped per category) Visual representations for each method and approach</p>	<p>Art is a reflection and action balancing approach Impact of environment seen but not elaborated on Art interventions are as much about preparing and post assessment for participants and facilitators Art is all about participants and their surrounding Visual arts mainly about creating, responding, connecting Connected SEL skills include self-management and self-discipline, interpersonal and relationship skills and self-expression and identity</p>	<p>Written for art educators Lack of intervention background</p>

\*The table solely represents initial insights. Before the inclusion in the research, each source is further explored.

\*\* Arising question during the data analysis are answered with the help of academic sources, not elaborated on in this table.

## Appendix VII: Coding tree

The coding tree represents all found de/in-ductive codes in the workshop facilitator interviews.

Figure VII.I: Coding tree 1 (Domain focused)

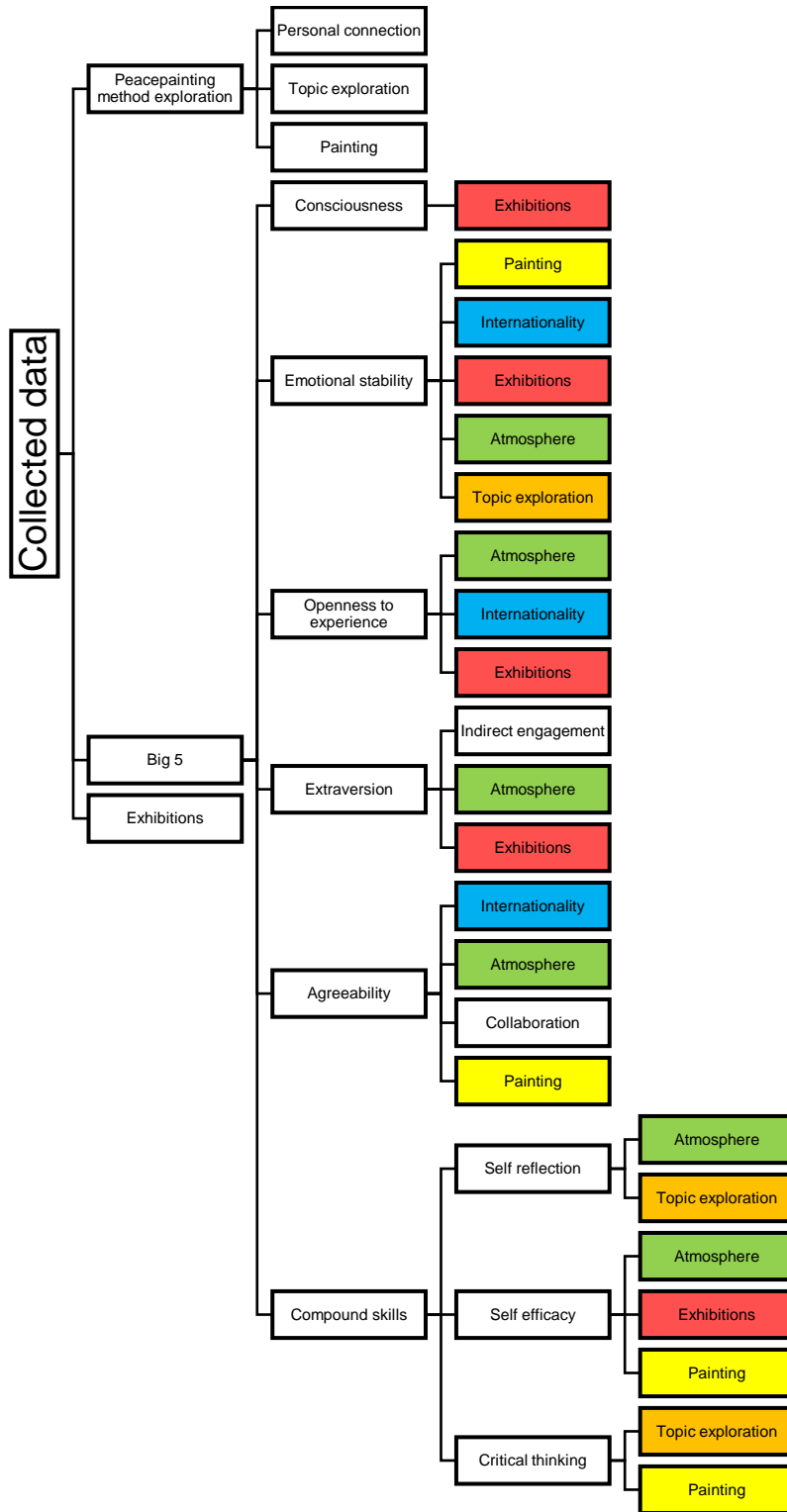
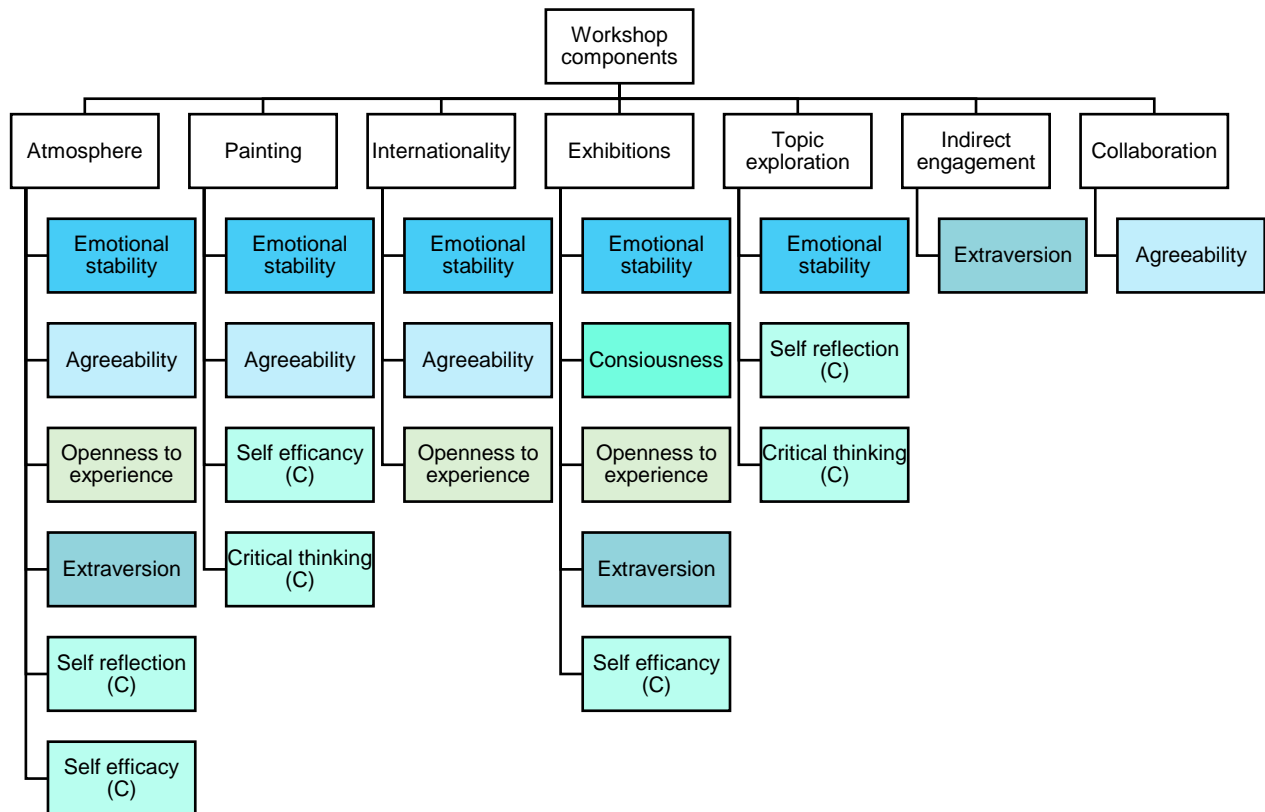


Figure VII.II: Coding tree 2 (workshop component focused)



## Appendix VIII: Big 5 quick assessment

Figure VIII.I: Big 5 quick assessment

English version.

Instruction: How well do the following statements describe your personality?

I see myself as someone who ...	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
... is reserved	(1)	(2)	(3)	(4)	(5)
... is generally trusting	(1)	(2)	(3)	(4)	(5)
... tends to be lazy	(1)	(2)	(3)	(4)	(5)
... is relaxed, handles stress well	(1)	(2)	(3)	(4)	(5)
... has few artistic interests	(1)	(2)	(3)	(4)	(5)
... is outgoing, sociable	(1)	(2)	(3)	(4)	(5)
... tends to find fault with others	(1)	(2)	(3)	(4)	(5)
... does a thorough job	(1)	(2)	(3)	(4)	(5)
... gets nervous easily	(1)	(2)	(3)	(4)	(5)
... has an active imagination	(1)	(2)	(3)	(4)	(5)

Source: Rammstedt and John (2007, p 210).