# The Value of Diversity in Arts Educational Research

## Proceedings of ECER 2023
## NW 29. Research on Arts Education

Judit Onsès Segarra
Fernando Hernández Hernández
Tal Vaizman
Eds.

Universitat de Girona

UNIVERSITAT DE BARCELONA

EERA

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Proceedings of ECER 2023
NW 29. Research on Arts Education
Glasgow, 22 - 25 August 2023

To cite this work:

Onsès-Segarra, J. , Hernández-Hernández, F. & Vaizman, T. (Eds.). (2024). *The Value of Diversity in Arts Educational Research. Proceedings of ECER 2023. NW 29. Research on Arts Education*. Glasgow, 22 - 25 August 2023. Girona: University of Girona - Dipòsit Digital.

ISBN (UdG): 978-84-8458-683-8

Girona, July 2024

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EERA - NW29

https://eera-ecer.de/networks/29-research-on-arts-education/

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# Expanding frames of knowledge and reframing ethics: decolonizing arts education research

## Introduction by Fernando Hernández Hernández, Judit Onsès Segarra and Tal Vaizman

### Exploring the Decolonial Territory

In recent years, the concepts of "decolonisation" and "decoloniality" have undergone a similar process of popularisation, with a corresponding increase in debates about their meanings and uses in different social collectives and disciplinary spaces. However, the contemporary manifestation of decolonisation in academia follows years of debate over the concept, its meaning and praxis, especially in the Global South (Mazrui 1978; Quijano 2000). From this starting point, we present in this introduction a brief framework to situate the concepts of Coloniality and Decoloniality.

A decolonial perspective is a comprehensive approach built from contemporary social sciences and decolonial thinkers on the assumption that coloniality is an unfinished historical process that has only transformed over time and realities but that has not been definitively overcome (Argüello Parra, 2015). In this way, understanding coloniality beyond colonialism, as a coercive structure, explicit or implicit, of the dynamism of recent history, requires thinking about a definition beyond the episodic and the details of the Event that it could eventually be considered "colonial." For this reason, Andrés Argüello Parra (2015) remarks that the complexity implied by the coloniality of power is better understood from the world-systems analysis model, widely developed by the United States sociologist Immanuel Wallerstein (2004). The coloniality of power means that the economy, politics, culture, education and the other dimensions of human and social life do not exist separately and unconnected with each other, but rather maintain a substantive connection character to understand realities.

We can also situate decoloniality as a critique of modernity, but at the antipodes of itself, beyond a critique added to the broadcast of the so-called postmodernist, postcolonialist, or de-westernizing spectrum. In this sense, Walter Mignolo (2023), one of its exponents, speaks of paradigm-other, which is different from simply saying another paradigm.

The concept of decolonisation, therefore, emerges from the awareness that decoloniality survives as a network of structures, ideologies, and sociohistorical practices articulated from a dialectical movement between the supremacy of a universal and absolute reference of rationality versus the epistemic undervaluation of all possible otherness. The modernity/coloniality project entails the own action of not letting be that entity that does not resemble itself, that is not integrated by canonical subjection:

> The coloniality of power is the device that produces and reproduces the colonial difference. The colonial difference consists of classifying groups of people or populations and identifying them in their faults or excesses, which marks the difference and inferiority concerning whoever classifies. The coloniality of power is the epistemic place of enunciation in which power is described and legitimised. In this case, colonial power (Mignolo, 2003, p. 39, paraphrased).

Therefore, the project of decoloniality is not just an intellectual exercise, but a social and human choice that empowers us (in the broad sense) to dismantle the numerous colonial extensions that persist in the various globalisms of our time. These extensions, despite their different forms and strategies, perpetuate the differences of non-being. Decoloniality challenges these extensions, revealing the fallacies of their claims to common well-being.

In the end, the decolonial paradigm in social sciences, education, and artistic projects stresses the importance of paying attention to a local, contextualised way of thinking. It allows us to find stories with a multiplicity of temporalities, intersectionality, and other categories and ways of seeing the global world. At this point it is necessary not to forget, as Karin Murris (2023, p. 78) reminds us that

> Each concept is profoundly political and tied to specific, traceable material discursive practices. It is better to regard West and East as phenomena rather than as bounded entities (West versus East); otherwise, the fabric of relationality itself is at stake. Agential realism allows us to see theories, practices, everything as always in relation and not to generalise about groups of people, including "children". It is also im/possible to say where "child" ends, and "adult" starts or vice versa—even when referring to childhood as a phase in a human's life (Murris & Kohan, 2020).

Having situated ourselves in decoloniality, let us turn to the focus of this chapter: the need to decolonise academia and research in visual arts education.


## Decolonising Academic Research

The concern to decolonise the academy (and, therefore, the research that is carried out in it) comes, above all, from groups of researchers working in universities in countries configured in colonisation contexts. South Africa, Australia, New Zealand, Mexico, Colombia, Ecuador,... are examples of this movement that has reflected on the consequences of relating to an 'other' through research that has displayed predatory and exploitative behaviour towards Indigenous communities.

To situate ourselves in this movement, looking at Linda Tuhiwal Smith's (1999) pioneering book may be illuminating. In this work, the author points out that decolonising research is an exercise in self-determination, deconstructing and dismantling 'the stories' to reveal the underlying contexts that we often know only intuitively. For her, this means recognising that research is a territory of struggle and that there are no neutral spaces for the kind of work and engagement required to ensure that traditional knowledge and expertise of communities and collectives) are sustained for generations to come and remain intimately linked to those who have generated them as a way of thinking and a raison d'être (Guerra Schleef, 2016).

Being aware of this reality can lead us to revise our onto-episte-methodological and ethical frameworks and open ourselves to other types of knowledge, ways of relating and writing, to displace Western thought as the only framework or possibility of knowledge. This overture to a decolonising research perspective is an approach that challenges Eurocentric research methods that undermine the local knowledge and experiences of marginalised population groups. Decolonising research and its ethical, onto-epistemic and methodological frameworks also involves rethinking and reconstructing academic spaces as spaces of shared knowledge and scenarios of joint thinking with other groups and collectives.

Alongside advocating for this transformative vision, the research also aims to serve the communities from which the knowledge is 'extracted' and calls into question the extractivist conception of research. This positionality can only be achieved by incorporating the values and ethics of these communities into the research process. Reading José Ignacio Rivas Flores et al. (2020) can help us understand the nature of the change proposed by the decolonisation of research. From a decolonial perspective, research is not about discovering reality but about allowing it to emerge and living with it so that we do not question it. Still, instead, it is the reality that questions us.

While there is no standard model or practise for defining decolonising research methodology (Zavala, 2013), the theoretical underpinnings, core components, and practical applications of what constitutes it are shared. Vivetha Thambinathan and Elizabeth Anne Kinsella (2021) offer four practices that qualitative researchers can use to decolonise research: (1) exercising critical reflexivity, (2) reciprocity and respect for self-determination, (3) embracing 'other' ways of knowing, and (4) embodying transformative praxis.

At this point in our historical trajectory as academics, it seems morally imperative to adopt decolonising approaches when working with populations oppressed and marginalised by colonial legacies. Given all this, our invitation in this presentation is to open ourselves to unlearning, question our mental frameworks, and ask ourselves: Which voices are essential in our research? Who is being silenced? How can we amplify those voices? Moreover, remember the importance of not flattening when we research local peculiarities, speaking on behalf of these voices, reducing people to categories and thematisations and, in short, taking what they share generously to make them respond to our agenda of interests.

The challenge that the above poses for us is how to relate to what has been thought to question the colonial discourse—of which we are a part by geographical, historical, and mental location—to recognise our colonial, Eurocentric, and cosmopolitan inertias and bring them into the enquiry—which is part of the colonial narrative—to decolonise it. This transit is linked to an ethical positioning. One notion that helps us think of a different ethics is "ethics in practice". Marilys Guillemin and Lynn Guillan (2004) point out that this perspective concerns the processual and fluid: the relational, discursive and performative issues that arise during the development of the research and the encounter with other subjects. Adopting ethics in practice does not mean abandoning the protocols and informed consent necessary in all research but sustaining a careful relationship with specific empirical realities since these are inseparable from frameworks of thought.

## Decolonising Education Research

Thi As Peggy O'Neil et al. (2022, p. 33-34) point out, traditional Euro-Western educational research onto-espiste-methodologies have historically and systemically favoured an empirical and instrumental worldview. New, inclusive, and diverse methods of inquiry embrace many ways of knowing, thereby revealing many ways of life and expressions of our shared human experience. Paulo Freire (1982), the Brazilian educator and philosopher, although researching during a different time and from another place, concurs with Indigenous and community-based approaches to decolonising scholarship:

> Instead of taking the people here as the object of my research, I must try to have the people dialogically involved as subjects and researchers with me. If I am interested in knowing people's ways of thinking and levels of perception, then the people have to think about their thinking and not be only the objects of my thinking... In doing research, I am educating and being educated with the people. (p. 30)

In *Pedagogy of the Oppressed* (1970), Freire emphasises the co-creative nature of knowing, the emancipatory essence of shared discovery, and hope for transformative educational change. Decolonising educational research by replacing narrow schema with real-world views and objective instruments with broader ways of knowing can help education discover new horizons.

Collective, inclusive ways of knowing can transform our fundamental conceptions of educational research and educational life. Researchers, learners, and society can collectively generate knowledge and

learn together what it is to be human. This view of the educational world may not be counted, classified, or neatly described; however, it can be experienced deeply, connecting individuals and humanity, and humanity with individuals.

Decolonizing knowledge is an effort to theorise one traditional knowledge system and entrench into the imposed foreign epistemology theories and interpretations in order to promote indigenous standpoints. According to Dreyer (2017), it seeks to construct and legitimise other knowledge systems by exploring alternate epistemologies, ontologies, and methodologies (Asiedu, et al. 2024).

## Arts-Based Decolonised Research

Decolonising through arts-based research is not a recent phenomenon, but draws on a longer history. In the early 1980s, Ngũgĩ Wa Thiong'o (1992/1981) commenced his discussions on the role of the arts on the decolonisation of the mind. For him, decolonisation represented an 'ongoing process' that is 'based on a critical view of the self that emerges from states of not knowing, hearing or seeing'. He reflected on the role of fiction, drama and poetry as ways to reconnect with broken roots of the past: first, by looking at the past critically and, second, by helping build healthy societies. Other postcolonial scholars have also reflected on the role of arts-based research methods in decolonising. For instance, for  Aquille Joseph Mbembe (2016), they offer avenues for overcoming the 'dualistic partition' or 'split between mind and body, nature and culture' and opportunities for embracing 'a horizontal strategy of openness to dialogue among different epistemic positions' (pp. 37, 42). (in Asiedu et al., 2024, p.3, paraphrased).

This whole framework has to be situated in the idea that Art has historically been used to raise awareness of social issues and initiate group-level dialogue and action. Using the arts as part of inquiry and knowledge production allows individuals to construct their own stories, with the potential to improve and increase empowerment. The arts-based approach can be used as a catalyst for participation in research (Finley, 2008; Kunt, 2020).

Using art-based methods in research and educational and artistic research promotes the active involvement of participants, resulting in ultimate participation and knowledge co-creation. The different art modalities, such as text, audio, visual, and performance, unleash participant creativity and provide opportunities for reflections that may not have been otherwise possible. Embedding the arts in educational and artistic research allows deeper research insight, interpretation, meaning-making and creative expression, and alternative ways of knowing (Asiedu et al. 2024, pp. 35-36 paraphrased). Throughout the different chapters of Richard Asiedu, et al. (2024) several characteristics emerge that can shape a decolonial perspective for research in visual arts education. We have taken them as a starting point and a reference that needs to be reviewed and put into conversation:

- • can be useful in designing research to support the perspectives and needs of communities in their place-based and cultural contexts;
- • can help to base research on principles and practices of openness, respect, dialogue, reflection and collective problem-solving;
- • can enable more horizontal relationships, foster pluralism and increase multivocality;
- • can support in centralising and amplifying marginalised or devalued knowledges;
- • can allow both the participants and researchers to think, learn, engage and express differently;
- • can foster mutual respect and empathy as well as critical awareness;
- • often work to challenge elitism and centredness on expert knowledge;

• can enable access to, or creation of, alternative knowledges;
• can activate and strengthen links within communities and create new social practices;
• may involve the sharing of emotions—that is, learning to listen where other people are at;
• can help envision new ways in which to create connections, reciprocity and care;
• enable the researcher and participants to collectively produce multiple and diverse forms of knowledge (e.g. written, visual, oral, embodied);
• allow the researcher and participants to reflect on what kind of knowledge is relevant for them; and
• challenge the individualism and instrumentalism of conventional research practices by emphasising collective doing and co-creation of knowledge. (p.11)

While some of these characteristics can help to decolonise arts research, it is necessary to bear in mind that in many ways of making art, particularly in community contexts, the artist's vision is imposed, and the perspective of art as a producer of objects can end up diluting the decolonising sense of the projects. Therefore, it is crucial to decolonise the prefigurations of researchers and artists that are projected onto the ways of doing arts education research. It is also important to maintain sight of the fact that good intentions are not enough to decolonise. It is necessary to assume that there will always be tensions and contradictions. These limitations do not preclude us from continuing to try.

## To continue the Conversation

This introductory chapter is an invitation to decolonise our prefigurations and conceptual frameworks and conduct research in arts education that is not extractive. It recognises those participating in the research as legitimate others (Maturana, 1990 ). Research that considers the histories, epistemologies and knowledge of others, not to speak on their behalf but for their experiences shown without filters or barriers.

At this point, and by synthesis, we can consider arts-based decolonial research as a powerful tool that encourages transformative learning. It inspires us to promote justice for marginalised, colonised communities through our research. It opens the potential for critical self-reflection and greater awareness in becoming 'better' researchers. The place of the arts in the research approach is relevant because it makes it possible to move beyond a 'flat academic' text to create more inclusive texts and evoke and provoke, enhancing engagement from researchers, participants, and audiences (CohenMiller, 2023).

But for the decolonisation of arts education of artistic research not remain an illusion, a paternalistic fantasy, it is necessary to recognise that:

• Decolonising intentions alone are insufficient in decolonising. As Mohan Dutta (2020) points out, they can inadvertently reproduce practices that silence the Global South (beyond its geographical limits), perpetuating Northern hegemony. One reason is that, as pointed out by Paul C. Gorski (2008), they are often based on the 'deficit theory'. This approach justifies inequality and aligns with the neoliberal global propagation of the free market. The deficit theory was thus essential to coloniality. This consideration underscores the importance of questioning and challenging existing power structures, a responsibility we all share. This danger invites us to engage in self-reflection, decolonise our minds and work, and move beyond critical or decolonial vocabulary.

• Be aware that many Western scholars working with colonised and marginalised communities are increasingly criticised for succumbing to 'innocent colonialism' that is falsely represented as

'solidarity'. These critics argue that they are engaging in processes of decolonisation while their work is not really connected to the needs and interests of the communities and even for using research to reproduce their own positions of privilege.

- Too often, research still segregates "knowledge from the people, from its contexts and local histories" (D'Souza, 2011, pp. 236–237). There is also a great deal of critical discussion on questions such as who should be the key agents of decolonisation, who are entitled to act as allies or solidarity actors. Or, in what ways should they engage with colonised people so as not to 'take over' their owner-ship of these processes, and thereby end up reproducing colonial power relations (Spivak, 1988).

- Indeed, it is essential to remember that research always involves power—it is not an innocent exercise "but an activity that has something at stake and that occurs in a set of political and social conditions" (Smith, 2012, p. 5). The question of power is especially important in postcolonial contexts due to the highly negative historical experiences of research which was 'inextricably linked to European imperialism and colonialism' and the ways in which knowledge was extracted and appropriated.

- We must not forget that, in the present as well, researchers have the "power to distort, to make visible, to overlook, to exaggerate and to draw conclusions, based not on factual data, but on assumptions, hidden value judgements, and often downright misunderstandings", a fact that concerns also participatory research (adapted from Asiedu, et al. 2024, p 5).

As noted by Linda Tuhiwai Smith (2012), emancipatory models of research (as decolonial) have not "freed researchers from exercising intellectual arrogance or employing evangelical and paternalistic practices", including ethnographic and qualitative methods which "may sound more sensitive in the field, but . . . can be just as problematic as other forms of research" (p. 180) (in Asiedu et al. 2024, p. 5-6).

As Karin Murris (2023, p. 77, paraphrased) points out, it is crucial to remember that decolonisation discourses are centred on examining the various ways coloniality manifests itself in producing and communicating knowledge and meaning-making. Their primary focus is on the critical topics of racism, sexism, classism, and ableism, and increasingly on land. However, it is essential to note that the usual referent of 'human' is that of the adult human, not the younger human, and decolonisation tends not to include a specific focus on children and age.


## The Contents of this eBook

This book presents a compilation of eleven contributions presented at ECER 2023. Although all of them share research and experiences from different countries and fields, we have decided to group them in three thematic sections with three or four papers each.

**1)** The first one, Teaching arts education, presents four papers. Two of them that question the role of teacher in art education and the other two invite us to reflect about textbooks as a tool for teachers approach to arts and their potentials. Thus, Maeve O'Brien Braun presents a poster in which the complex professional identity artist, teacher, and researcher is addressed. Particularly in the case of visual arts teachers in the secondary educational context. Necessary for their position as educators, mediating

via dialog between aspects of identity is crucial for self-presentation and confidence, and visual arts educators often feel isolated and over challenged trying to do so. Interviews with recently qualified teachers revealed that identity dilemmas appear more among them than among "non-art teachers" educators, a problem that stems, perhaps, from identity dichotomy rather than bridging. The visual arts educators are frequently involved in self-dialogue emerging in their community-based classrooms. Their experience as artists and approach to materials is exposed through their teaching, allowing a dynamic process of identity formation. It would be interesting to learn about the possible solutions for the educators' challenges experiencing isolation and identity crisis.

In the second paper, Carlos Navarro Moral sets out to explore the way the position of a research teacher is being understood and performed in primary education in Spain. The research teacher in arts education is intended for more than a technician's work, addressing skills and materials, but for initiating involvement in a process and motivating change. Within art education, art-based research is often connected to a/r/tography, to improve the understanding of the human condition. An uncommon practice in Spain, the paper offers a possible explanation of the "hows" and "whys".  Moral inquiries of teachers' opinions suggest a lack of basic understanding and a sense of affiliation to the teacher-research movement Although he describes an inner need for improvement, he doesn't carry out personal research projects for that purpose, nor receive training or external support. Lacking the background and the basic tools, these teachers are unequipped to perform an investigation to advance their art teaching. The methodology and number of participants offer a focus on what might be a common issue, and it would be interesting to see how proper awareness of this approach would be delivered to educators, whether through further research or field training.

Entering to analysing texbooks from arts education perspective, Margarida Dourado Dias' study diverts the attention to childrens' textbooks, as means for educational aid and human interaction, as bearers of culture and opinions, and as facilitators of identity. They carry grave responsibility by being perceived as delivering truth, reality, and collective memory. Though containing images, those are present mainly in support of the written word. However, Dias states that images, presenting interpretations, may contain more, leading the user to form opinions, biases, and even discriminating ideas. To deliver her thesis, Dias leans on Portugal's transition from a dictatorship to a democracy in the 1970s, and the use of textbook images to shape thoughts. Her exploration and team discussions over data revealed that colonialism and discrimination are still present in textbooks, as are gender and social class stereotypes. Moreover, it points to a difficulty in letting go of the past. This analytical work reraises the question, "where does interpretation begin, and where does it end?", for the researcher is undoubtedly an interpreter of someone's interpretation of reality, and the reader adds their own.

Finally, Lurdes Gomes & Cristina Ferreira explore the potentialities of teaching Design in the Bauhaus through Johannes Itten and Paul Klee's methods and textbooks and the influences they had in the subsequent pedagogical practices. To do so, first the authors highlight the aim of Bauhaus to interconnect arts, craftsmanship, and technology in teaching arts, design, architecture and urban planning in a very experimental and holistically way. They also stresses the idea to break the dichotomy between theory and practice in teaching.  Therefore, they present a sample of Itten and Klee's textbooks and highlight the Itten's influence in the  connection between artistic expression and color theories , and Klee's contribution in the fusion of artistic theory and pedagogical practice in a very unique way.

2) The second section, Arts in higher education,  brings different research linked to higher education. Thus, Lihan Yu addresses the too few opportunities for K12 art students in France to pursue further educational possibilities in the field of arts and cultural education (EAC). Leaning on Bordeaux approach of "seeing, making, and interpreting" she expresses the importance of art education for more than artistic

experience, but for cultural exploration. These views, shared by higher education program leaders and governmental authorities in France, lead to the perception of the arts as cultural democratization. Nonetheless, Yu questions the commitment of higher education programs to EAC, and her study explores website data to map universities' arts and cultural activities and programs in France's higher education. The exploration revealed a lack of data required to a full understanding of the programs. However, the universities and their libraries often initiate cultural events around heritage, arts and culture. Productions often involve a variety of organizations, which will help in future mapping of the complexity and richness of EAC in France's higher education – still requires developing.

Focusing on higher education dance, Agota Tongori and Anita Lanszki offer a review of research done in the recent decade in motivation to summarize thematic elements offered by researchers, and identify skills of the 21st century. The authors also point to the gap between the two, suggesting that research still needs to cover ground to bring dance higher-educators up to speed. While collaboration, critical thinking and creativity are well covered, problem-solving, communication, social and cross-cultural skills, productivity, innovation, and general cognitive skills are often left out in dance related research. Health and well-being are also topics that usually bring together 21st century skills and recent studies, focusing on personal characteristics and learning skills like self-efficacy and stress. What remains out of discourse are implications of the digital times and issues related to global awareness, like economics and civic or environmental literacy.

In the following paper, Corinne Covez presents a research based on students' desire to experience their future work as AgroEcology Transition Educators (AET) in a fresh way. She explains how the students went on a weeklong 'documentary theatre' journey. Overseeing the process, Covez reports on the less common techniques in AET of debating, presenting, and joint productions. Unlike the intellectual experiences they often have, this was an emotional, connective one. Equipped with uncertainty around the success of the documentary theatre approach among engineering students, the project was as experimental as practical. It resulted in the overall need for individual emotional expressions, and the collaborative work of teachers and students was successful. Moreover, it allowed the participants to "escape" reality and feel as one through action. Many stated they would take the experience to their future work, as it supplied them with useful realizations. Just as a professor, cited by Covez, reimagined their work using documentary theatre, perhaps further studies would show the approach implementation as cross-discipline.

In the last paper of this section, Tal Vaizman and Gal Harpaz address art in their research as an element in students' road to personal growth and, eventually, to academic success as effective learners. Describing Personal growth as self-evaluation in the search for continuing growth, Vaizman an Harpaz highlight the quality's significance in achieving effective learning skills and explore some of the characteristics that might affect it, like learning disabilities, weekly learning hours, weekly working hours, and parenthood and those that might foster it, like well-being and self-efficacy. Among these is "savoring art", addressing a person's tendency toward art. Unlike consuming art, savoring art is the need to experience art and the joy one gets from it. During the COVID-19 pandemic, attending cultural events, exhibitions, and concerts was limited by social restrictions, but the need for art, apparently, remained deep and researchable. Vaizman and Harpaz's study shows that personal growth is not only crucial for learning but is affected by savoring art and other malleable qualities and wish to bring this to the attention of educators.

3) The last chapter of this book focuses on Arts and technology. We find three different approaches to introduce and use technology in arts education as well as how it allows us to create new approaches. Francesca Pileggi's paper reviews 16 studies, covering visual art training in primary school incorporating AITech. With intentions of highlighting the elementary relationship between humans and technology

(analog or digital), Pileggi focuses on current visual arts as an aesthetic expression of this relationship. The vast spread of technology is an opportunity for individuals to explore themselves through their relationship with technology. AITech presents a fairly new approach to exploring visual art at the significant primary school age group. Being at a life stage characterized by openness and curiosity, children are both consumers and producers of visual art. Based on review and analysis, Pileggi concludes that AI-based education is on the verge of developing and promoting creative thinking and openness to experimentation among the new generation and suggests implementing it in every discipline. The AI art is ever-developing, allowing vast interpretations, and offers the individual an experience beyond the object – a tool for social criticism. However, making sure that children use AI art critically is necessary to promote creativity.

Turning to hyperreality and gaming, Anja Kraus presents a research about soundscapes linked to hyperreality inviting us to reflect about the role they have in aesthetic education and in which ways these concepts are part of place-and-body-responsive pedagogy. To do so, she starts inviting us to reflect on the relation between hearing and the voices and sounds, and how the act of hearing affect our emotions and makes us being aware of we are social bodies. After that, she analyses the video horror game 'Perception' and how it can be interpreted as a hyperreal 'soundscape. She warns us about the danger this kind of experiences can be in terms of confusing players between what is real and what is non-real in hyperreality.

Finally, in the field of visual education, Bárbara do Carmo brings a research that aimed to understand the impact of collaborative art practices on learning beyond the institutional boundaries of the curricula. She presents "Articulations" an educational project in which she proposes students to create short-film animations. Theo bjectives of this proposal is to question educational system in the following axes: the ephemerality or the precarious on pupils artistic doings; the invisible learnings that artistic experiences could carry out; the sensitivities that cannot be measured by a scale or an evaluation grid; the impact and the differentiation of long-term projects in the pupils' life;  the unpredictable, the risks and errors within a over-bureaucratic and over-planned school system.

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# 1. Teaching arts education

# Visual Art Teachers' Professional Identity Formation: Positioning Oneself as Artist and Teacher through Self-dialogue

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**Abstract**

This poster presents some initial findings from our study examining the multiple professional identity positions that beginning visual arts teachers carry with them into schools. Our aim is to gain a better understanding of how interacting professional identity positions catalyse the continuing identity formation of visual arts teacher in the secondary educational context.

While accepting the reality that visual arts teachers working in schools have two nascent professional identities, the present research seeks to transcend the tendency in general education research to reduce professional teacher identity to a simple dichotomy of personal versus professional, and the tendency in the arts to dichotomise artist and teacher identity without considering the influences of situational and biographical proclivities. By exploring the catalytic potential of having multiple professional identity positions that appear, or are framed as conflicting, we seek to make a contribution to our broader understanding of professional teacher identity formation as a dynamic, multivoiced process.

Our initial findings confirm that these beginning visual art teachers are actively engaged in professional identity positioning that is highly reflexive and deeply context bound. The teachers' self-dialogues revolve around their sense of community in the classrooms they inhabit; how their personal biography weaves into their sense-making as a teacher; and the materiality of their relationship to the subject they teach. This ongoing analyse is making visible how professional identity formation is experienced as a dynamic process wherein the personal and the social combine to narrate a unique, and continuing story of becoming.
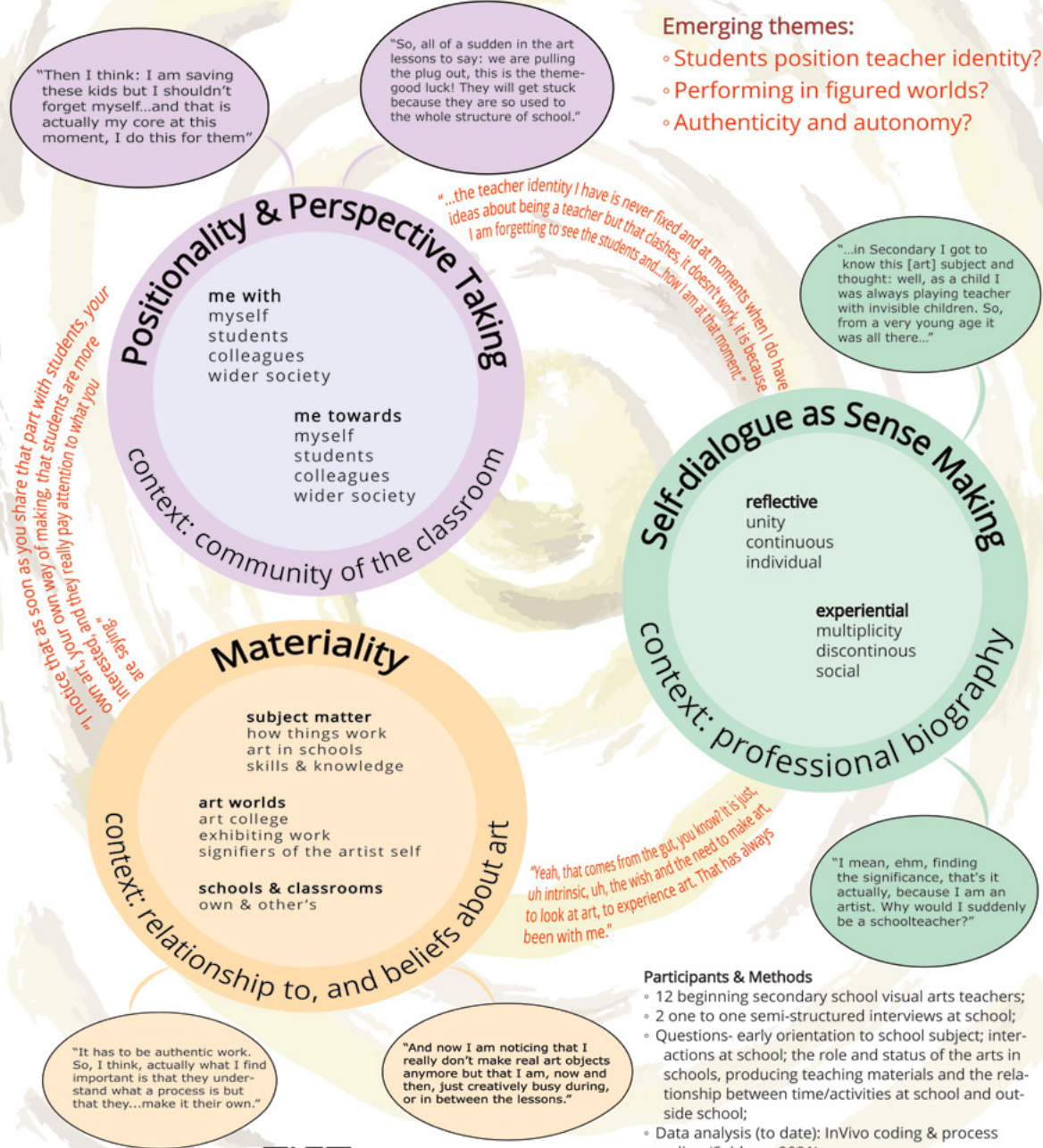
**Keywords.** Professional identity, Positioning, Visual art teachers, Dialogism

Figure 1. Poster presentation (O'Brien, ECER 2023)

## Introduction

This poster presents some initial findings from our study examining the multiple professional identity positions that beginning visual arts teachers carry with them into schools. Our aim is to gain a better understanding of how interacting professional identity positions catalyse the continuing identity formation of visual arts teacher in the secondary educational context.

During initial teacher education, visual arts teachers are routinely asked to frame their professional goals and actions using the discourses of artists and educators. This familiarity with thinking and talking about professional practice from two distinct professional identity positions makes them an interesting case for examining teacher identity as the dynamic interaction of multiple identities (Akkerman & Meijer, 2011). The 12 beginning visual arts teachers interviewed for this study were recent graduates of 5 different Dutch visual arts teacher education bachelor degree programmes. Their ages ranged between 22 and 59. The interviews focussed on how they perceived and experienced professional identity formation as teachers *and* artists.

Framing teacher identity formation as 'multivoiced' moves a teacher's focus away from monitoring accrual of predetermined cognitive and behavioural assets towards an engagement with the process of identifying themselves as being a teacher (Arvaja, 2016). Akkerman and Meijer (2011) pointed out the limitations of dichotomising teacher identity as 'professional versus personal identity', arguing instead for a dialogical approach. Dialogism places the individual and society in dynamic relationship whereby dialogue, in the self, or with others, catalyses interaction between different perspectives, or identity positions, on experienced or imagined phenomena (Aveling & Gillespie, 2008). A focus on dialogic relationship, on being understood, resonates through visual art teachers' descriptions of their experience of working in schools. Research shows that some visual arts teachers experience isolation or feel different from their school community (Adams, 2007; Cohen-Evron, 2002; Hatfield et al., 2006). In contrast, visual arts teachers also highlight the importance of the safe atmosphere they create in classrooms and their personal connection to their students (Määttä & Uusiautti, 2013). At the level of professional status, however, these teachers sometimes experience disappointment, or even feel guilt because they find it difficult to maintain 'making art' next to their 'job' as a teacher (Thornton, A., 2011).

## Preceding research

In an earlier study, we used these visual art teacher specific themes found in the literature to develop four arts subject-specific dilemmas to augment the generic early-career teacher identity dilemmas developed by Pillen, Beijaard and Den Brok (2013). Our results showed no conclusive evidence to support a claim that arts subject-specific dilemmas were experienced more frequently or more strongly than the generic dilemmas. However, in a comparison of our results for the generic dilemmas against data from a group of non-arts teachers we found significant differences between the two groups. Visual arts teachers reported, on average, to experience twice as many identity dilemmas as non-arts teachers and for some dilemmas such as emotional engagement with students and time for activities outside of school, the frequency and magnitude of this experience was also significantly higher. While more research is needed, the conclusion we drew from this survey study was that, in the case of visual arts teachers, there is a possible conflation of subject-specific concerns with generic dilemma experience (O'Brien Braun, Oosterheert, Van Meerkerk & Meijer, in press).

## Present Research

While accepting the reality that visual arts teachers working in schools have two nascent professional identities, the present research seeks to transcend the tendency in general education research to reduce professional teacher identity to a simple dichotomy of personal versus professional, and the tendency in the arts to dichotomise artist and teacher identity without considering the influences of situational and biographical proclivities. By exploring the catalytic potential of having multiple professional identity positions that appear, or are framed as conflicting, we seek to make a contribution to our broader understanding of professional teacher identity formation as a dynamic, multivoiced process.

## Methodology

This research is a qualitative explorative study, using semi-structured interviewing to elicit self-dialogues about early-career teaching in secondary education. A self-dialogue is a speech act that exists on the continuum from monologue to dialogue, following along with a speaker's chosen position as narrator (Hermans & Hermans-Konopka, 2010). The semi-structured interview questions were arranged thematically, progressing from their choice for teaching, and early experiences with the visual arts; what it is like to teach the visual arts at their school; their personal ideas and opinions about the visual arts as a school subject. Respecting the multiple professional identities of these teachers, participants were also asked about their creative and artistic work outside of school. In each theme, at least one interview question asked the participant to actively take up a position with regards to teaching the visual arts in a secondary school context. For example, they were asked to reflect on their current work from an age-specific perspective (i.e. Think back to your 16 year-old self, what would they think of your current occupation as a visual arts teacher?) or to think metaphorically about the position and status of the visual arts subject at their school (i.e. If this school was a house, which room would indicate the position of the arts the best?).

Interviewing took place at the secondary school of the participant, and an average interview lasted 60 minutes. Recruitment was carried out through open calls via professional network organisations, LinkedIn, and the researcher's professional contacts at Dutch visual arts teacher education degree programmes.

Reflective thematic analysis (Braun & Clarke, 2006) is being used to guide the coding process. The analysis is currently focusing on teacher narratives about interactions at school and the social discourses that inform the participants' early-career identity formation.

## First result

Our initial findings confirm that these beginning visual art teachers are actively engaged in professional identity positioning that is highly reflexive and deeply context bound. The teachers' self-dialogues revolve around their sense of community in the classrooms they inhabit; how their personal biography weaves into their sense-making as a teacher; and the materiality of their relationship to the subject they teach. This ongoing analyse is making visible how professional identity formation is experienced as a dynamic process wherein the personal and the social combine to narrate a unique, and continuing story of becoming.

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# The teacher as a researcher in arts education

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**Abstract**

The figure of a research teacher is an image widely used in the literature on teacher training but perhaps this figure is not a real figure that is carried out in current Spanish educational contexts. The purpose of the work presented here is to begin to distinguish the real possibilities of carrying out the figure of the research teacher within the context of the area of art education. To carry out this research, a focus group with primary school teachers of arts education has been proposed. The purpose of this focus group is to gather the opinions, understandings, and beliefs of arts education teachers in primary education concerning their role as a research teacher. The results of this research project show that arts education teachers in primary education do not know what the role of a research teacher means, they do not practice it either in their form of art-based research or in their form of artistic creation research. The causes they consider to be responsible for this lack of involvement in the role of research teacher are due to the absence of interest in the role of research teacher on the part of the educational administration.

**Keywords.** Teacher as researcher, Teacher education, Art based research, Art creative research

## Introduction

The figure of "research teacher" is a figure widely accepted as a key to educational improvement, even considered synonymous for professionalism (Fueyo and Koorland, 1997; Price and Valli, 2005). Currently, we have found research that refers to the teacher as researcher in the field of arts education (Becher and Orland-Barak, 2018; Jokela, 2018). From this perspective, the figure of "arts education teacher" goes from being considered a mere technician to a teacher involved in improvement and an authentic activist agent of change (Becher and Orland-Barak, 2018). But while highlighting the benefits of working from this figure of teacher as researcher, it also highlights the difficulties of implementing it. Firstly, teachers consider that they tend to make little use of art concepts in their professional development processes (Oreck, 2004), and they also complain about lack of knowledge, lack of time, lack of conditions, etc., to carry out research in the classroom (Becher and Orland-Barak, 2018).

The research model that prevails when talking about the figure of the teacher-researcher is a basic type of action research cycles, in which modifications in practice are tested for the improvement of teaching in a wide range of subjects (mathematics, science, etc. (Elliot, 1991; McAteer, 2013). However, it should be noted that when referring to the case of research in teaching arts subjects, the features of a type of action research as promulgated by Elliot (1991,) should be analyzed and questioned, since it is not the same to research for the improvement of a science or mathematics subjects, as it is for an arts education subjects. The ontological and epistemological foundations of research in artistic education are different from research in any other curricular area. Irwin (2013), with his contribution of a/r/tography, guides us on where to situate the figure of the teacher as a researcher. She provides a series of considerations about how research in arts education should be based on a close relationship between art, research and education. But it should be borne in mind that although the research carried out under the guidance of a/r/tography has its own characteristic features, according to Irwin (2013) it is framed within the field of art-based research.

However, although a/r/tography can be placed within the broader framework of the art-based research, when focusing attention on the methodological bases of both approaches, it should be noted that they present particular differences (Martín-Viadel and Roldán, 2019). It is especially significant to analyse their ontological, phenomenological, axiological and methodological foundations. This analysis leads to the identification of two different ways of carrying out a research process in Arts Education (Navarro Moral. Forthcoming publication).

> 1) A teacher researcher's approach from the arts-based research strand, in which a basic qualitative, and in some cases mixed, research model is applied (Leavy, 2018a, b). Arts-based research is defined by Cole and Knowles (2008) as a mode or form of qualitative research within social science. Its purpose is to improve understanding of the human condition by using art as a research instrument and form of research representation, to reach multiple audiences and to make knowledge more accessible. The methodology it uses draws on the forms, processes and language of the visual, literary, theatrical or performance arts, etc., together with the expansive possibilities of qualitative research. Arts-based research brings together the systematic qualities of conventional qualitative methodologies with the imaginative and artistic qualities of the arts.

> 2) A research approach for the analysis of the act of artistic creation itself, where a phenomenological and heuristic research model has to be applied (McNiff, 2018; Moustakas, 1990,1994). Artistic creation research involves a "lived experience", as Dewey (2008) stated, which is particularly difficult to access through a traditional scientific research model. Its content and form escape even the ontological and epistemological parameters of the paradigms of art-based

research. Conceptual frameworks are required that are accessible to the study and analysis of artistic phenomena from a subjective and intersubjective perspective. Specifically, conceptual frameworks and theories that provide a foundation for researching and analysing the processes of artistic creation associated with reflexive, evocative, empathetic and provocative subjective processes, such as the lived experience of artistic creation (Camargo-Borges, 2018; McNiff, 2018; Vera Cañizares, 2021). Phenomenological and heuristic approaches have been considered the most suitable approaches to the study of artistic creation processes (Eisner, 2008; Leavy, 2018a; McNiff, 2008; 2018). Phenomenology encompassing a field of study of lived experiences on a more general descriptive or interpretative level (Moustakas, 1994; Van Manen, 1984; and heuristics (Douglas and Moustakas, 1985; Moustakas, 1990) delving into a deeper analysis of lived experience from a more personal perspective.

In Spain, we did not find many references to research works related to the figure of the teacher as a researcher in arts education. We find references of authors who have considered the figure of the teacher as a researcher in general, associated with the research-action model (Pérez-Gómez, 1993; Porlán-Ariza, 2011). The field of the teacher as a researcher in arts education seems to be unexplored in the Spanish research context. For this reason, the questions that arise when asking what kind of research is carried out by arts education teachers, what are their problems and challenges when they act as teacher-researchers, are the questions that gives rise to this research.

## Methodology

The aim of this research is to know the state of the art in relation to the figure of research teacher in spanish arts education, and the problems involved when teachers adopt this role in practice. The research is based on a collection of opinions, understandings and beliefs of a group of arts education teachers in primary education. Besides knowing the beliefs, understandings and problems in relation to this figure of teacher researcher in arts education, the work tries to deepen the type of research used by the teacher researchers in arts education. It aims to identify whether the research model applied to research in arts education is a basic qualitative research model, with some mixed variant (Hall, 2020), or on the contrary is a phenomenological and heuristic research model associated with lived experiences.

The work presented here is a development of the doctoral thesis research carried out on the analysis of the model used in research on artistic creation and its differences with other research models, such as the scientific/experimental research model and the arts-based research model (Navarro-Moral, forthcoming). Based on the research results of this doctoral thesis, a focus group has been set up. Focus groups are identified by Kings, Horroks and Brooks (2019) as methodological strategies grouped under the qualification of group interviews. The type of focus group used, following Frey and Fontana (1991), is exploratory. This type of focus group is used in the early stages of research when the researcher needs to collect basic information in order to enter the field of study (Morgan, 1997).

In relation to the sample of subjects selected to participate in the focus group, there were 6 Primary School teachers willing to participate in this research, selected under the Snowball procedure (Patton, 2015). The structure of the focus group was developed by mixing its formal and informal possibilities, and was conducted online following the ethical recommendations for the development of focus groups (King, Horrokcs and Brooks, 2019). The results obtained from collecting information from the focus group will be used to take the next step in the development of this research, which is planned to be developed using a

mixed research approach (Hall, 2020). This second phase of research will take as reference the information obtained from the analysis of focus group data, and will be used to elaborate a questionnaire of opinion based on the results of focus group.

## Results

The results obtained from the analysis show a situation in which the figure of the research teacher is poorly defined or poorly configured. The teachers indicate that they do not usually develop research activities in the development of their arts education classes. Their teaching task is conceived as an experience of contact with the pupils. This experience is a rich experience which develops in a collective exchange and construction with the pupils. But their teaching task follows the patterns of action previously established by the school's educational project. This way of acting has been previously agreed upon by the members of the school's team of teachers, and they have not established research processes on their practice.

The teachers do not identify with the figure of a research teacher, but with the figure of a teacher facilitator of artistic knowledge, builder of a democratic and participative environment for the development of a learning community in class, in which the pupils feel free to participate and find a place conducive to learning. In reality, they have heard little about the role of a research teacher. During their years of training, both initial and during their professional development courses, they have not been introduced to the role of the research teacher.

Although they are unaware of the bases of action of a research teacher, the group of participating teachers indicate that they improve their practice based on an inner desire that arises within themselves with the aim of innovating and changing. But they have not made formal research proposals, and they have not received external support to carry out research proposals. They have probably initiated themselves in research proposals based on an art-based research model or a more heuristic or phenomenological research model, but it could have been approached intuitively.

Undoubtedly, they have not received training on the qualitative research models that can be the basis of an arts-based research model, as well as on the principles of research from phenomenological and heuristic approaches involved in the analysis of a type of research in artistic creation. In particular, they have a great lack of knowledge about change through research, although they have heard about what arts-based research means. Therefore, the research they have carried out personally and intuitively to improve their own practice has not followed the moulds or patterns of arts-based research or creative arts research.

They favour the principles of doing research that is relational, participatory and collaborative in principle, but complain about the difficulties involved in carrying out research proposals. The problems that stand out as impediments to being able to carry out action-research proposals are, fundamentally, the workload and the lack of support from the educational administration for carrying out activities that go beyond their daily work with pupils. Specifically, the main impediment they consider to be the cause of their lack of identification with the figure of the research teacher is a lack of encouragement and interest in this type of action on the part of the education administration.

## Conclusion

The results obtained from the analysis of the focus group essentially show that Primary art education teachers are not very connected to the teacher research movement. The participant teachers consider that they do not usually carry out research to improve their practice and that they do not have it as a habit in their daily practice. They consider that they have not received information about the teacher as researcher in their initial training period and in their professional development period. Teachers are unaware of how to carry out an investigation. They do not have the mechanisms or tools to carry out any type of investigation. The research model they are familiar with is the typical experimental/positivist research model, and to a lesser extent the qualitative research model. The teachers are totally unaware of a type of investigation of a phenomenological-heuristic model associated with a lived research and of a/r/tography developed by Irwin (2013). The idea of a teacher who overcomes the teaching technical features and achives to be an involved and activist teacher, is blurred by the ignorance of the meaning of the teacher as researcher of art education teachers participating in the research.

Although this research is based on a single focus group discussion as a preliminary step to further research based on a larger sample and a more elaborate data collection process with a mixed design, these results provide a first approximation to understand the difficulties and the state of the image of a teacher researcher in the Spanish educational context.

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# Archiving identities from portuguese textbooks

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**Abstract**

In a world full of images as exemplifications of the (un)desired realities, in a world of books as mirrors of (un)desired lives, textbooks contribute to the design of identities in a school context. Used in the first years of schooling as an indispensable didactic tool to support teaching and learning, these books are carriers of specific cultures. As products of human relations, they combine the desires of publishers/editors with the wishes of (inter)national governmental institutions. They are passed on to schools, teachers, students, and carers (parents/grandparents/family/etc.) as a valid truth and reality. They embody economic, political, ideological, social, cultural, and educational purposes. They represent a mainstream and contribute to shaping a collective memory of those related to them, especially children. Moreover, being a product of the mainstream culture, they can (in)directly contribute to inequalities and discrimination, manipulating subjectivities to homogeneous (and desired) identities and contributing to the disappearance of singularities (Merlin, 2017).

Besides improving the teaching activities and being the primary learning source (Sui, 2022), some of the primary and direct goals of textbooks in the first school years are to teach children to decode letters, words and images. Moreover, although they combine texts and images, the attention is primarily on words. Images are given to support the world of words, and the reasons for their choices can be questioned.

Framed within the project [in]visible, this paper intends to share an example of image analysis in a Portuguese textbook from 1976, considering the possible contribution of its images and representations in shaping specific stereotyped and uniformed identities. This analysis contributes to drawing an archive of identities in images from Portuguese textbooks.

**Keywords.** Textbooks, (In)visible representations of identities, Images and illustrations, Antidiscrimination

*"There is no reality. There are no facts, there are interpretations. The truth,*
*or what we call truth, is an interpretation that has prevailed over others."*
—Gastón Duprat & Mariano Cohn, 2016, "El ciudadano ilustre"
[movie], 01:50:28-01:50:40, Argentina.

*"It is when it is small that the cucumber gets twisted."*
["De pequenino se torce o pepino"]
Portuguese proverb

## Research

*[in]visible - [in]visibility of identities in Portuguese 1st grade elementary textbooks of Social & Environmental Studies after 1974*[1] is an FCT-funded project, which began in 2023. The tasks of the project are focused in:

- Collecting images from Portuguese "Social & Environmental Studies" textbooks published for the 1st grade after 1974.

- Analysing critically images – illustrations and photographs – regarding the (re)presentation and non (re)presentation of identities concerning the following categories of discrimination: ethnic diversity, gender/sexuality, age, capacity absence and social status.

- Drawing of the history of the subject "Social & Environmental Studies" to recover its paths in relation to the Portuguese legislation (laws, decree-laws, ordinances, orders, etc.) on educational intentions and European guidelines.

- Designing a visual digital archive that reflects the representation and non-representation of identities in the sample of the textbooks and the changes of these [in]visibilities between 1974 and 2023.

## New ground, new directions

For forty-eight years, Portugal lived in a dictatorship, which was ended on the 25th of April of 1974. A democratic era started; an attempt to reach the level of (capitalist) development of the other Western countries was pursued, and enormous challenges were faced in several fields (Silva, 2022). Strategies for changing society and promoting an ideal of free people required a colossal effort in reviewing the educational field beyond others. Experimental educational phases in the first three years of Portuguese democracy were applied, and in the school year 1975/1976, the subject "Physical and Social Environment" was created, the predecessor of "Social & Environmental Studies". Although this last one was created in 1989, its implementation was in 1991, when the first "Social & Environmental Studies" textbooks were published and began to be used in schools.

The subject of "Social & Environmental Studies" (and its predecessor) was chosen because it is this one where identity issues related to the definition of the "I", the "we", and the "Others" are taught, transmitting ideals of being, acting and thinking.

## Access to textbooks

Textbooks, as disposable objects, due to their expiry date, are not (valuable) objects that you want to keep. Their reuse by the same person (other than the teacher or researcher, for example) is very rare, which makes them objects to be passed on or discarded. In addition to the change in educational priorities, the materials with which the textbooks are produced only allow them to be reused for a short time. Also, the multiplicity of subjects during the school journey in Portugal contributes to the impossibility of archiving textbooks (nowadays, that would be an average of 68 textbooks per person, apart from activity books). That is why access to information about Portuguese textbooks released from 1974 onwards, and its access is difficult.

From March and October 2023, the *[in]visible* project team has been collecting textbooks from libraries *(BNP – Biblioteca Nacional de Portugal*[2] and *BPMP – Biblioteca Pública Municipal do Porto*[3]), from the publisher Porto Editora, from bookstores and different individuals. The BNP supported the project the most: the team was given a private room for consulting and registering textbooks. On the other hand, *BPMP* and Porto Editora gave us only access to textbooks[4], forbidding their scanning. In the case of *Porto Editora*, the record was done by decal on acetate sheets.
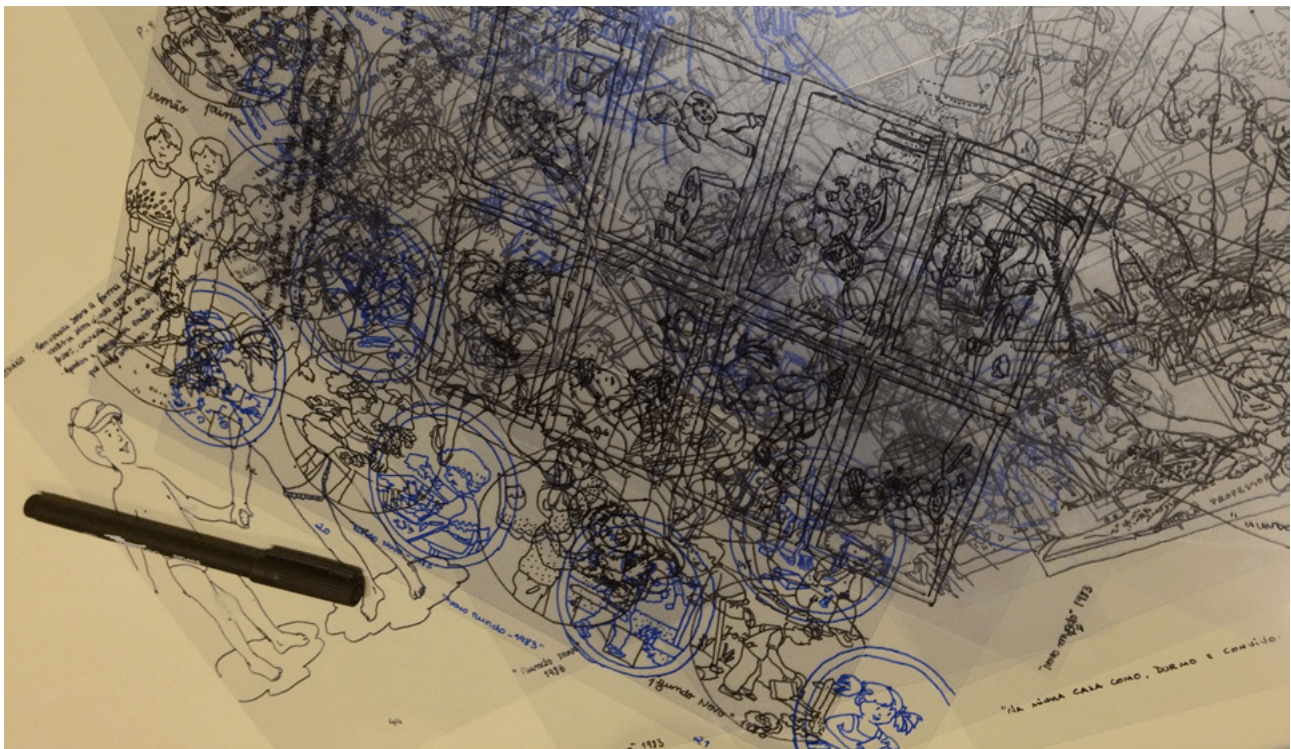


Almost at the end of the first year of *[in]visible*, the project's team has collected images (which include illustrations and photos) from 61 textbooks – 20 are from the initial subject (1976-1990), and 41 textbooks are from "Social & Environmental Studies" (1991-2023).

## Maintining *discovery*



A timeline from 1974 to 2023 listing textbook titles:
- 1974
- 1978 — O meu mundo
- 1983 — Mundo Novo
- 1985 — Tico-tico descobre o meio 1
- 1988 — O Bambi descobre... 1
- 1991 — Aprender a descobrir • Descobrir é viver • Janela do Mundo
- 1995 — As minhas descobertas
- 1999 — As minhas descobertas • A aventura no Meio • Projeto Caravela
- 2003 — Novo projeto caravela
- 2016 — Eureka!
- 2023
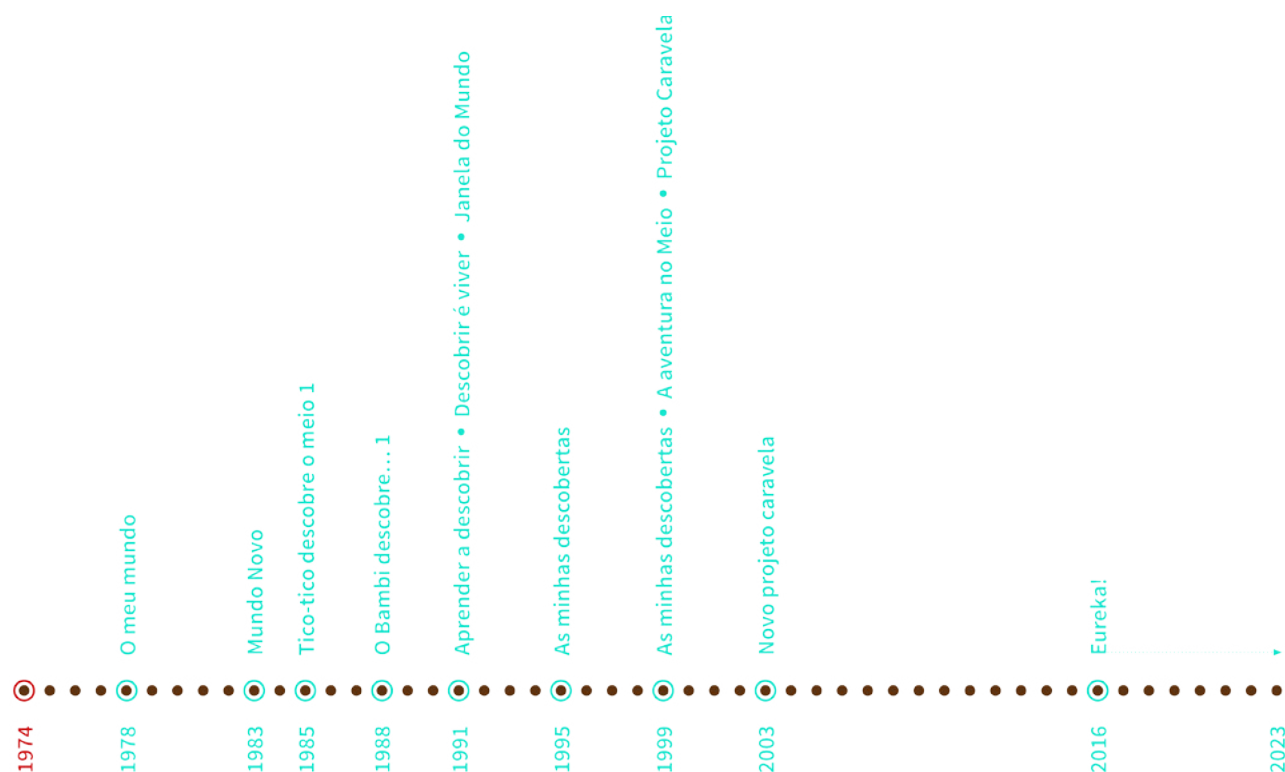
From *[in]visible* textbooks collection, the title of some of these books until 1999 is directly related to words such as "discovery", "adventure", and "new world", linking the phase of school discoveries of this age (6-7 years old) to the colonising Portuguese past, but with an attempt of associating the empire to a promise of modernity (Silva, 2022)[5]. Although since 2000, the word "discovery" is not present in the titles of the following textbooks, it can be thought that the same strategy of praising the colonising past (something that was highly valued in the dictatorship) could be seen in the chapters or blocks in which the discipline has unfolded since 2004:

Block 1 - Discovering Yourself [À Descoberta de Si Mesmo]

Block 2 - Discovering Others and Institutions [À Descoberta dos Outros e das Instituições]

Block 3 - Discovering the Natural Environment [À Descoberta do Ambiente Natural]

Block 4 - Discovering the Interrelationships between Spaces [À Descoberta das Inter-relações entre Espaços]

Block 5 - Discovering Materials and Objects [À Descoberta dos Materiais e Objectos]

Block 6 - Discovering the Interrelations between Nature and Society [À Descoberta das Inter-relações entre a Natureza e a Sociedade]

The maintenance of the logic of "discoveries" in the textbooks (either in the titles or in the structure of the learning process) may confirm that colonialism and discrimination were and are, in fact, very present in the educational (and other) discourses until nowadays. Despite the progressive exclusion of the word "discoveries" from the titles of the textbooks, it remains in the structure of at least two current textbooks (published in 2016 and used also in 2023) – "Eureka! - Estudo do Meio 1" (Areal Editores) and "A turma do Pedro - Estudo do Meio" (Edições Livro Directo).

## Drawers

For initial and critical analyses of the collected material, with the technological support of the MAXQDA software, images were distributed in several codes and sub-codes related to the categories or approaches of identity mentioned before. The distribution of codes and sub-codes for the categories were:

- age > baby; child; young person; adult (mother; father); elderly; uncertain age (crowd).
- capacities > blind (sunglasses and/or walking stick); prescription glasses; wheelchair.
- ethnicities > unidentifiable (crowd); dark; medium; light.
- gender/sexuality > feminine; masculine; unidentifiable; crowd.
- social status > low; middle; high.

These initial codes, distributed in drawers of categories, are just some of the ones. There is always an open drawer for new codes when the representation is visible in a textbook (e.g., if a mental capacity limitation is represented in a textbook, this code will be added to the category of capacities).

## Sharing an example...



Figure 1.  "Meio físico e social. Observação e conversação. Fichas de trabalho. 1.ª fase", Manuel Vieira (1976), Porto Editora

## … - numbers

Published in 1976, in the first textbook of "Physical and Social Environment" (Fig. 1), from the 90 images present, we highlighted 84 illustrations, four photos and two diagrams/signs[7]. In our quantitative analysis, supported by MAXQDA, we arrived at the following results by selecting parts of the images and distributing them in the category of gender/sexuality between the codes and sub-codes:

- women-girls/female – 37% (68 representations).
- men-boys/male – 56% (103 representations).
- unidentifiable – 7% (14 representations).

In this textbook, there are two representations of crowds, but these did not enter into the accounting of people.

In the case of the category of age, the distribution in codes and sub-codes is:

- baby – 0,5% (1 representation).
- child – 37% (69 representations).
- young person – 10% (18 representations).
- adult – 45% (83 representations):
    - mother – 3% (6 representations)
    - father – 1% (2 representations)
- elderly – 2% (4 representations).
- uncertain age – 5,5% (10 representations).

## … - descriptions

After the quantitative data collection, each selected image was analysed qualitatively in each approach. The first step was to describe the image in-depth, focusing on the number of represented people, gender, age, clothing (clothes and shoes), accessories (glasses, walking sticks, hats, earrings, etc.), hair (colour, type, hairstyles), eyes (colour), mouth, skin, body posture, surroundings, and representation schemes. All these descriptions helped us to think about the identities being represented or non-represented. These thoughts were developed and discussed between 2 or 3 team members, individually or collaboratively.

From the same textbook from 1976, will be next shared the image analysis from sheet nº 4 (Fig. 2). In a kitchen (a private family environment), in the centre of the picture and in the foreground is an (adult) woman leaning slightly over a fridge (located on the left-hand side of the illustration), the door of which is open. The figure is holding a round plate with a cake cut into it. On the right-hand side of the illustration is a table (with a cup and a bottle of milk) and a green chair. In the background are the kitchen cupboards, with a window with curtains open and fastened at the side.



Figure 2.  Image 1 from the sheet no. 4: Life in the family (Vieira, 1976)

## ... - interpretations

Thinking about the different categories in this image, we registered the following considerations:

- **[age]** – the smiling female (maternal) figure is young and can be associated with a stereotype of the reproductive age.

- **[capacities]** – no evident absent capacities exist in the person represented. The person is doing housework in the kitchen.

- **[ethnicities]** – only one light-skinned person is represented in a private place. The environment of the representation is Western regarding the kitchen decoration and the person's clothing and hairstyle.

- **[gender/sexuality]** – the female figure is engaged in domestic chores in a private/family environment (kitchen). She stands out with feminine clothing and a neat hairstyle and is depicted in a pose with advertising features that reinforce an idealised social role for the mother/woman in the family. She conveys an idea of happiness associated with her role. Even though she is engaged in an activity requiring some movement/dynamics, her rigid pose shows restraint in how she presents herself and acts.

- **[social status]** – the neat, clean environment with amenities (fridge, curtains), combined with the presentation of the female figure, conveys a middle-class idea. The space suggests that it is in an urban area. The plate with a cake shows some financial freedom that allows this small luxury to exist inside the house. This thought is considered because the represented environment and the clothing suggest an ambient from the 50s or 60s.

In this illustration, despite the absence of the name of the illustrator, the *[in]visible* team detected similarities with the advertisements of the 1940s and 1950s (e.g., Fig. 3). The distance between these advertisements and the illustration of the textbook from 1976, raised questions to be thought about: Why this image was chosen? Why weren't images of the 1970s represented?



Figure 3.  From left to right, advertisements of refrigerators: Gibson, 1944; Admiral "Master", 1946; Amana Double Duty Freezer, 1956 (detail)[8].

This initial approach to the different forms of talking about identity in images is incomplete if seen separately. That is why our interpretation could only be more complete by looking at the adjacent image and text of the page (Fig. 4) and, after that, with other pictures of the textbook.



Figure 4. Sheet no. 4: Life in the family (Vieira, 1976)

This page (Fig. 4) presents two family groups: the rural world vs. the city world, large family vs. small family, lower class vs. middle class, female activities vs. male activities, and equipped kitchen vs. rustic kitchen (fireplace). The image of the rural environment suggests warmth from contact with people (family) and the fireplace. The other image, from the urban environment, offers a coldness from the colours used in the illustration, the opening of the fridge door, and the fact that the person is alone at home. The size of the images may suggest that the image in the bottom left-hand corner, which is more significant, was closer to many people's reality (in the 1970s), while the city image in the top right-hand corner alludes to a dreamed-up ideal. The text suggests that children should be involved in their homework, that everyone works, regardless of their age, and that whatever contribution they make is positive at home and school. In both images, the woman's social role is attached to the private/familiar sphere (cooking, tidying, spinning, knitting, and caring for the younger people).

## ... - towards conclusions

*"They are now and then mothers and daughters. But almost without exception they are shown in their relation to men."*
— Virginia Woolf, 1929, A Room of One's Own

From this analysis, we moved on to the next stage: the relationship of the first image (Fig. 2) to other representations of women/female figures and men/male figures. In this textbook, the woman cooks or

takes care of the groceries for home; clean the private/public (indoor) places and washes the clothes; is the mother and takes care of the children and their education; is concerned with maintaining a neat and attractive appearance, relating to beauty, and often with the pink colour associated with their clothing. The girls are represented in the same poses and activities as a preparation for their (possible) future – future home carers and mums. When represented in this textbook, the woman must maintain a particular posture. She is responsible for the private space (the impact is merely on the family) and for pleasing other people (Karintzaidis et al., 2016; U'Ren, 1971; Weitzman et al., 1972). The women in the textbooks do not have an exciting life, as if they could not choose the person they want to be (Komisar, 1971). The only situation when the woman performs an outdoor subsistence activity is in a rural context. Furthermore, when she is with a man, she stays in the background, as a shadow in the invisibility.

"The message is that nothing happens to women, that women tend to the routine needs of others, but accomplish nothing unique themselves." (U'Ren, 1971, p. 327).

Analysing the representation of the men/male figures, these are seen as hard workers and intellectuals. The man has the strength to carry out the hard work related to fishing, agriculture and the construction of houses. It is a man with a social status who dedicates his life to learning to be a successful person in society (there is a significant number of boys or young men studying), with a position of authority over other people. He can be a policeman, a businessman and a doctor. His way of life requires moments of pause and pleasure since he is represented as a group leader. The boys are adventurous and courageous, testing the limits in front of danger or death (Karintzaidis et al., 2016; Mohd Yasin et al., 2012). Moreover, even if a boy is sometimes aggressive, he knows or will learn how to behave because he is or will be an example for society. After all, almost all heroes are men...



## Choices

This analysis is not final, and we may even doubt whether it ever will be. Nevertheless, from these thoughts around numbers, descriptions, and interpretations, we will have the task of relating them to the following textbooks and the educative and political (Portuguese and European) legislation.
The represented identities, in this case, continued to be used to strengthen a patriarchal society and discrimination and continued to present ideals and stereotypes that, in the 1970s, were not anymore, a norm (e.g., a lot of the women also worked outside their houses, besides being or not mothers). Did these represented stereotypes of visible and invisible identities change the freedom of everyone living in Portugal?
It is evident to us that breaking the (mental) chains from the past is impossible and that the textbook can be an "interesting" tool depending on how its content is exposed, questioned, and confronted by the teachers/carers with the students/children. Since books and textbooks contribute to the creation of

stereotypes through the exemplification of ways of being/feeling and of social values (Sovič & Hus, 2015; Weitzman et al., 1972), the images are the most immediate contact that should be seen carefully for their communicative, aesthetic and ideological roles (Karintzaidis et al., 2016, p. 114). What is visible or invisible in the textbooks are not facts but choices.

## Notes

1.  http://doi.org/10.54499/2022.05056.PTDC, https://invisible.i2ads.up.pt/

2. National Library of Portugal, located in Lisbon.

3. Porto Municipal Public Library, located in Porto.

4. In the case of the publisher, we couldn't get information about the publishing history of textbooks on "Social & Environmental Studies" or "Physical and Social Environment". The access was given only to the textbooks that we were sure that existed.

5. Between 1995 and 2000, several actions were taken in Lisbon to sanitise and depoliticise the memory of the colonial empire: the construction of the Parque das Nações; the realisation of the Expo'98 (1998 Lisbon World Exposition, with the theme "The Oceans, A Heritage for the Future"); the construction of Vasco da Gama's Bridge (1995-1998), Tower (1998) and Shopping Center (1999); the construction of buildings and the Pavilhão Atlântico in the forms of ships. As Inês Silva exposes, these investments had the intent to promote a view of Portugal as a place connotated to "adventure" and "cultural encounter"(2022).

6. Related specifically to skin colour. Although it is not precise to identify an ethnicity through skin colour, Portuguese textbooks have a limited representation of diverse ethnic groups.

7. All images entered in this account. For the qualitative analysis, only a few images were not analysed because they did not have a link to the identity representation.

8. Images retrieved on the Internet: Admiral. Refrigerador tipo "Master" [Advertisement]. (1946). A Cigarra [magazine]. http://atom.arquivoestado.sp.gov.br/index.php/, Pereira, A. M. (2016, junho 13). Uma caixa de receitas da Gibson. https://garfadasonline.blogspot.com/2016/06/uma-caixa-de-receitas-da-gibson.html, https://www.freeimages.com/pt

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# Reflections on the Construction of a Textbook for Art Education. A Case Study of Two Textbooks from the Bauhaus School

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**Abstract**

The reflection presented here aims, above all, to promote the view of teaching practice as a continuous space for reflection. In this context, a thorough analysis of the relationships established in the classroom is sought, considering the subsequent analyses that may emerge from these enriching exchanges.

Focusing on reflections on teaching practices, we highlight the influential contributions of two renowned Bauhaus masters, Johannes Itten and Paul Klee. Itten, a pioneer in the approach to visual arts, emphasized the interconnection between artistic expression and color theories. Klee, in turn, promoted creative freedom, encouraging individual exploration. Their methodologies transcended conventional boundaries, shaping not only the Bauhaus but also influencing subsequent generations of artists and educators. The ideas of Itten and Klee continue to inspire, underscoring the enduring relevance of a reflective and innovative pedagogy in contemporary art education. They serve as paradigmatic examples of a reflective approach to art education. As a result of this reflection, two textbooks emerging from the pedagogical practices of these masters are presented, constituting a significant contribution to the teaching/learning process in the artistic fields. These textbooks not only provide valuable insights into the applied methodologies but also enrich the comprehensive understanding of the educator's role in artistic formation. By offering an in-depth view, they become essential tools for enhancing the educational environment and catalyzing student development. In addition to guiding techniques and pedagogical approaches, these works serve as inspirational sources, fostering a holistic approach to art education.

**Keywords.** Art Education, Textbooks, Bauhaus School, Johannes Itten, Paul Klee

## General description

This reflection does not intend to be an exhaustive study of the Bauhaus but rather to present crucial points for the reflection on teaching practices in higher education in Design. Some of the concerns that run through this reflection can be translated into the following questions:

> - How do the textbooks of Johannes Itten and Paul Klee address and outline the fundamental principles of artistic education at the Bauhaus?

> - What is the underlying educational philosophy behind the teaching methods proposed by Itten and Klee at the Bauhaus?

> - In what way do the textbooks highlight the interaction between theory and practice in the artistic teaching process, as proposed by Itten and Klee?

> - How were the ideas and methods described in the textbooks of Itten and Klee received and influenced subsequent pedagogical practices in art education?

Based on these questions, to critically examine the pages of the textbooks, we focused on the following objectives: understanding how the pedagogical objectives proposed by Itten and Klee aim to develop students' technical skills and creative expression; understanding how the textbooks address the role of art in the holistic education of the student, going beyond technical development to include conceptual and critical dimensions; understanding the specific objectives related to the understanding of color and form theories, as presented in the textbooks; determining whether the textbooks highlight objectives that encourage an interdisciplinary approach and the integration of various forms of artistic expression; understanding how the objectives of artistic education proposed by Itten and Klee at the Bauhaus contribute to the formation of artists capable of innovating and transcending artistic conventions.

Regarding the context, the reference to the Bauhaus is mainly linked to the pedagogical legacies it left behind. The 14 years of the Bauhaus's existence as an educational institution consolidated its position as one of the most influential in the teaching of Design and architecture in the 20th and 21st centuries. Its notoriety rests not only on the magnificence of its facilities or equipment but also on its ideals, artistic achievements, pedagogical contributions, critical analyses, reformulations, and writings of its directors and faculty.

> It is always on the verge of transgression and modernist recovery that we can 'read' the various programmatic perspectives of the Bauhaus, analyze the pedagogical and material production of this school. Only in this way can we 'learn from the Bauhaus,' learning from the experience (Rodrigues, 1989, p.20).

During this period, the school was perceived as an essential locus for debate and congregation, giving rise to innovative ways of conceiving and experiencing design and architecture.

The Bauhaus sustained an artistic and pedagogical concept that advocated the interconnection between art, craftsmanship, and technology, resulting in the conception of functionally crafted products that were aesthetically refined and commercially accessible to all social strata. The artists and designers who taught or attended the Bauhaus contributed to the development of a distinctly modernist style, characterized by sober lines, geometric shapes, and the deliberate absence of ornamentation and ostentation.

The Bauhaus, founded in 1919 by Walter Gropius, was a pedagogical experiment in the domains of craftsmanship, design, arts, architecture, and urban planning that transcended the institutional framework of a school to become a cultural and artistic movement with impact in Germany, subsequently radiating internationally (Rodrigues, 1989, p.17).

The pedagogies advocated at the Bauhaus underscored the importance of design and productive practice in an environment where the training of designers and artists faced the inherent challenges of experimentation. Bauhaus instructors emphasized the indivisibility of theory and practice, thus delineating a training process in which students were urged to acquire multifaceted skills. This was achieved through the realization of real-life feasibility projects, exploring a variety of techniques and materials while not neglecting the need to conceptualize the underlying social relationship. It was argued that education should amalgamate social responsibility, theory, and practice in an integrated manner, promoting comprehensive training in artistic, architectural, and design terms, equipping students with substantial problem-solving skills.

Furthermore, emphasis and importance were placed on collaboration and interdisciplinarity, encouraging students to collaborate in teams and integrate various disciplinary areas into their projects. This experimental and collaborative approach emphasized the importance of practical knowledge, teamwork, and additionally, it encouraged critical thinking and questioning established conventions. The purpose was to promote an educational practice that fostered the development of individuals conscious of their decisions and corresponding discourses.

Due to the advancement of industrial production methods in the 19th century, the existing unity between design and production was diluted. Gropius's fundamental idea was that, at the Bauhaus, art and technology should become a new and modern unity (Burdek, 2006, p.28).

The pedagogies implemented by the Bauhaus have had and continue to have a significant impact on the field of Design education, recognized as an extremely relevant influence in the contemporary training of designers. Reflections on the pedagogical practices of prominent figures such as Walter Gropius, Wassily Kandinsky, Paul Klee, and Johannes Itten, among other Bauhaus instructors, have been meticulously documented in textbooks and literary works covering the themes included in their courses.

In these records, it was common to find not only written reflections but also graphic representations illustrating concepts and, at times, the results achieved by students in the proposed exercises. This documentary body reflects a continuous commitment to research and investigation, addressing crucial issues related to teaching and learning in art education, as well as teaching and artistic practices, in addition to student formation.

As it is known, during its fourteen years of existence, the Bauhaus did not have a curriculum that could be accepted as a consolidated program, but rather a variety of proposals and divergent approaches, almost always in conflict (Vega, 2019, p.75).

## Methodology

We opted for a qualitative and interpretative approach when writing about the textbooks of Johannes Itten (Fig. 1) and Paul Klee (Fig. 2) from the Bauhaus, prioritizing a deep understanding and detailed

analysis of teaching methods. In contrast to traditional scientific approaches, focused on controlled experimentation and quantitative analysis, our methodology emphasizes the interpretation of texts and the extraction of contextual meaning. Qualitative research provides a subjective and contextual exploration of educational methods in the textbooks. Reflective analysis and critical interpretation offer a holistic view of teaching at the Bauhaus, highlighting aspects such as educational philosophy, practical approaches, and impact on artistic development. The methodology used in this reflection on Bauhaus teaching consisted of the exploratory analysis of the two textbooks in question.

Starting with Johannes Itten's work "Design and Form: The Basic Course at the Bauhaus and Later" (cover in Fig.3). This author was chosen for his teaching skills and his interest in contributing to the development of latent and hidden talents in his students. According to Itten, this process should be achieved naturally, respecting everyone's uniqueness.

> In this book Itten describes his system for encouraging the student to work in an individual and creative way (Ruddley, 1964, p. 44).



Figure 1. Johannes Itten
(Paula Stockmar, 1920)



Figure 2. Paul Klee
(Hugo Erfurth, 1927)



Figure 3. Book cover. "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975.



Figure 4. Book cover. "PEDAGOGICAL SKETCHBOOK" Paul Klee, 1953.

The Syllabus system (Fig.5), which Itten proposes to use, is presented on the basis of objectives that he considered essential for the development of learning and skills. As can be seen in the Syllabus, the basic outline of the teaching structure, each student's foundation should be worked on in order to develop their aesthetic sensibility, which would lead them to understand shapes, colours and materials, a sensibility that would help them to explore graphic expression individually and boost their creativity. All this accompanied by a strong theoretical and practical component on the theory of form and colour, as well as techniques for using materials.

Figure 6 shows Itten's possibilities for using the chiaroscuro effect, both in terms of the use of the material and its potential, and in terms of the possible structure for its representation. Based on this example and an understanding of it, each student could produce their own representation of chiaroscuro. The same thing happens in Figure 7: pairs of visual representation techniques are made available to the student, which encourage them to analyse these representations, opening up new possibilities. In this context, the initial concepts of chiaroscuro and pairs of visual representations are introduced. Subsequently, more challenging proposals are presented, such as the analysis of the use of chiaroscuro in paintings (Fig. 8 and 9). This encourages critical thinking and activates individual creative processes, giving rise to technical works and representations of different solutions (Fig. 10). However, these solutions are valid and emanate from the theories and practices taught.



Figure 5. Syllabus of the Weimar Bauhaus, 1923, in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 8.



Figure 7. Examples of the works (light-dark, chiaroscuro) presented in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 17.

Figure 6. Examples of the works (Pairs of visual techniques) presented in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 10-1.



Figure 8. Portrait of the Duchess of Alba, Goya, 1795 (collection of the House of Alba, in the Liria Palace, Madrid)



Figure 9. Light-Dark analysis the painting of Goya the Duchess of Alba by Mocznay in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 21.

Figure 10. Examples of the works (tone values) presented in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 24-5.



Figure 11. Page about color theory in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 33.

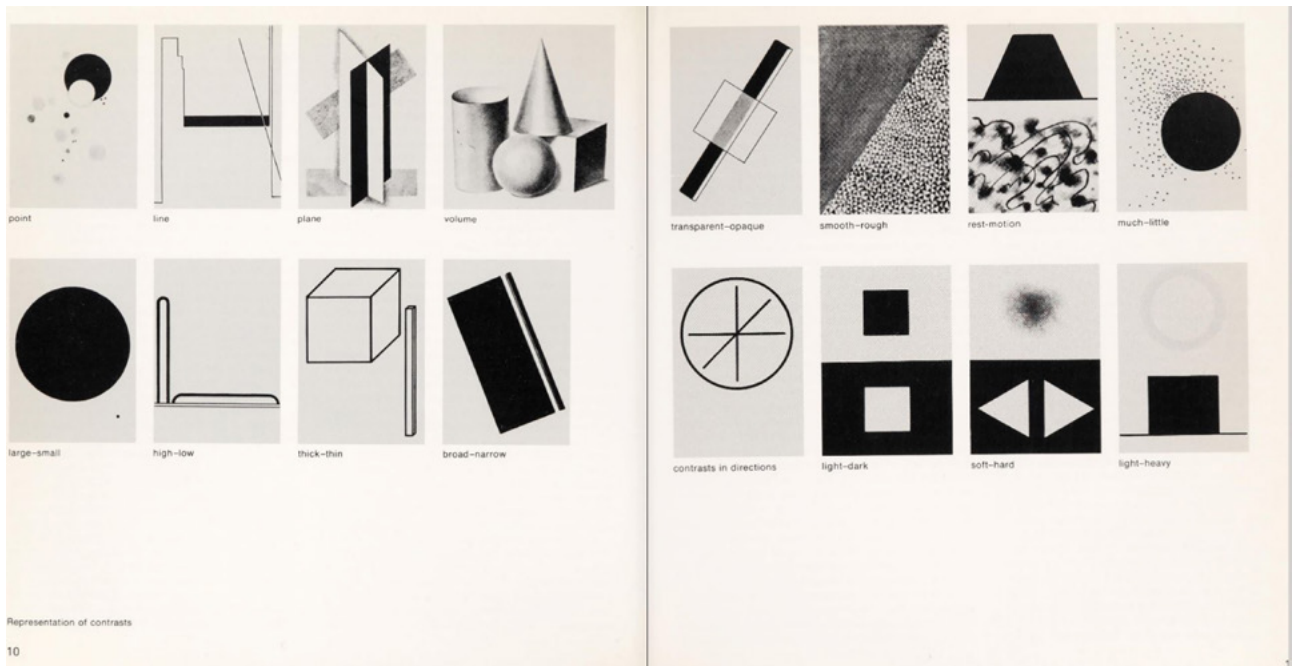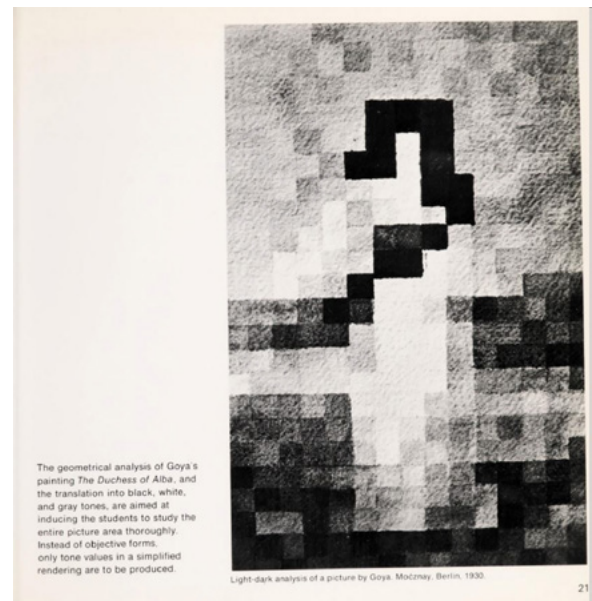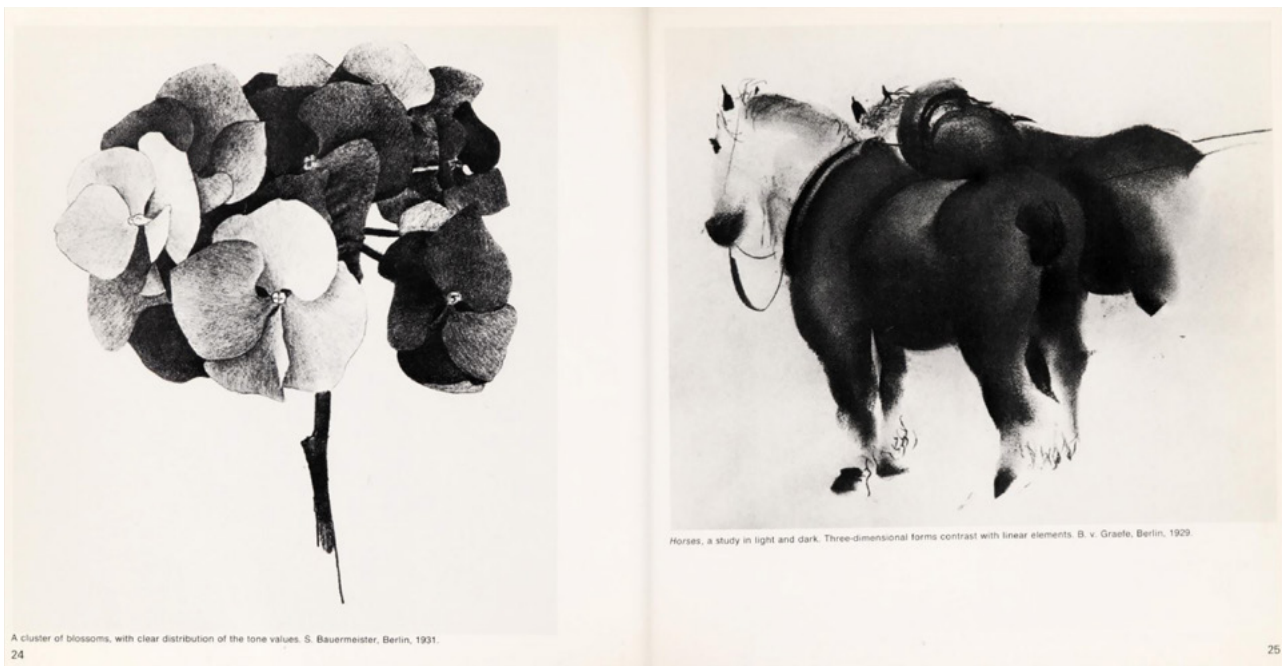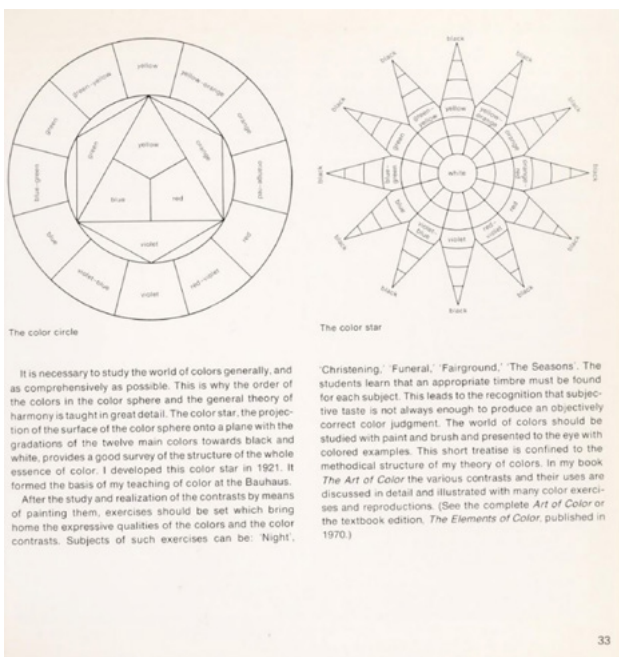His approach was based on the conviction that form and color are the essential pillars of visual arts, and it is crucial to understand their relationships for creating harmonious and effective compositions. The research and reflection that Itten carried out in the course of his practice can be seen in diagrams and examples that explain the theories of form and colour (Fig.11), which contribute to the creative processes, sometimes solitary, of the students and which still support the development of pedagogical methodologies today.

Itten's approaches are not confined to two-dimensional examples and final results; they extend into three-dimensional fields, giving rise to sculptural results such as those illustrated in Figs. 12 and 13, as well as textures, illustrated in Figs. 14, 15 and 16.

Additionally, he provided students with fundamental principles of design, such as balance, contrast, and unity. In addition to lectures and demonstrations, students were engaged in tasks and practical projects, allowing for the concrete application of the acquired knowledge.

The spatial three-dimensional montage with its rhythmic and textured forms is held together by differentiated rhythmically tense movement. In the spatial study of different materials the main effect of the composition, height about 4 ft (120 cm), is concentrated in the formal contrasts: triangle, rectangle, circle, cylinder, point, and line. The differentiation of the effects of the forms by textures is only secondary.

Spatial three-dimensional montage. M. Bronstein. Weimar, 1921.

Three-dimensional study. W. Herzger, Weimar, 1922.

Figure 12. Examples of the works (spatial three-dimensional montage) presented in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 38-9.



Three-dimensional study in the cubic character. G. Schunke. Weimar, 1921.

To create a three-dimensional experience of the elementary geometrical forms I had models made of spheres, cylinders, cones, and cubes. The study in the cubic character is not an architect's model. Colors were applied to some areas, to study how their use reduced or enhanced the three-dimensional effect. The wires represent glass walls.

Architectural sculpture in the cubic character which was executed in sandstone as a workshop project following the Basic course.

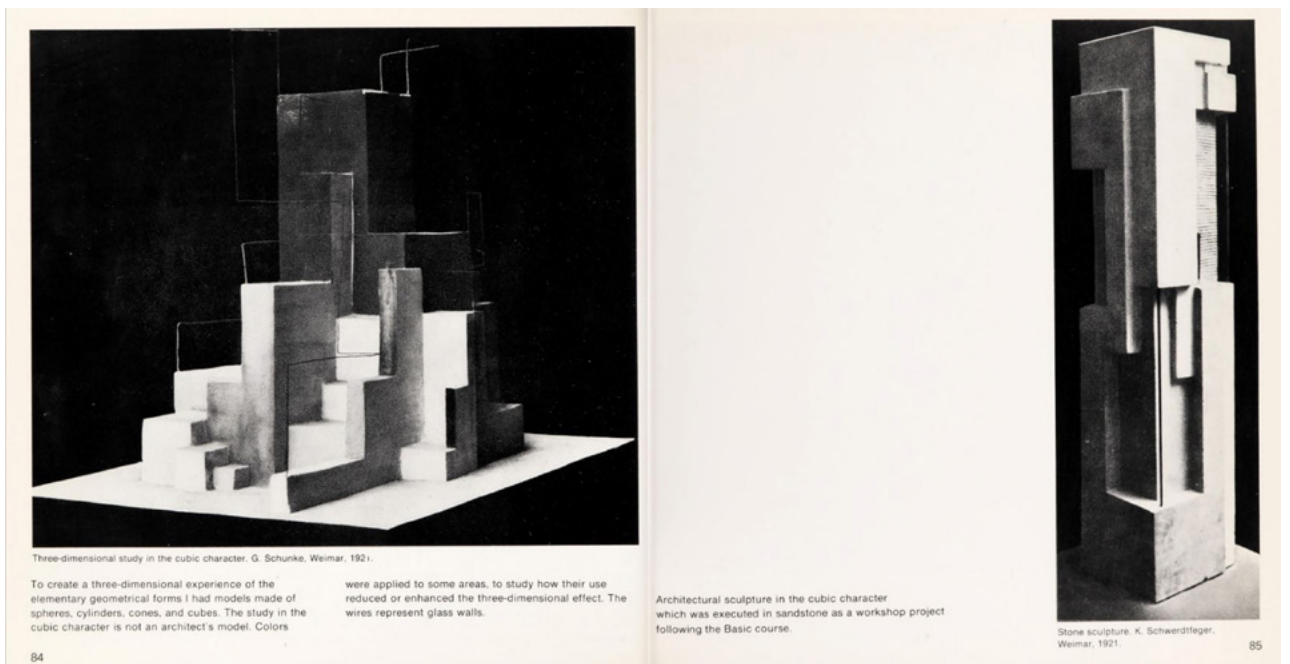Stone sculpture. K. Schwerdtfeger, Weimar, 1921.

Figure 13. Examples of the works (three dimensional study) presented in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 84-5.

Figure 14. Examples of the works (textures) presented in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 44-5.
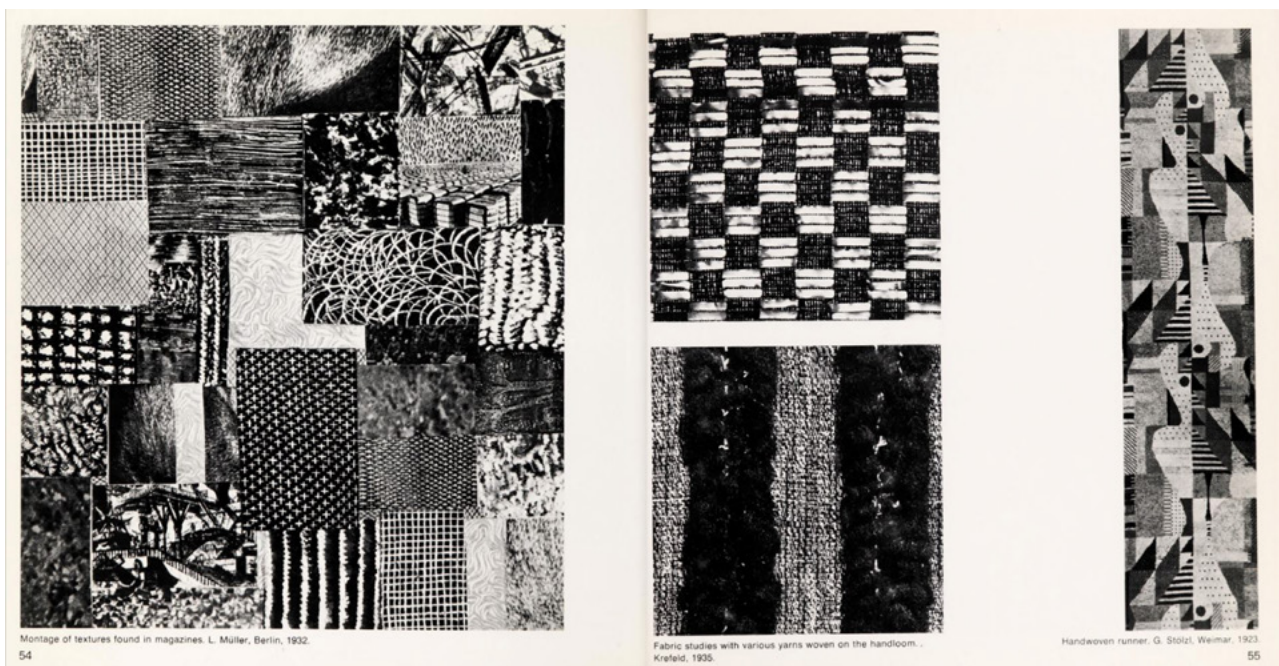


Figure 15. Examples of the works (textures) presented in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 54-5.
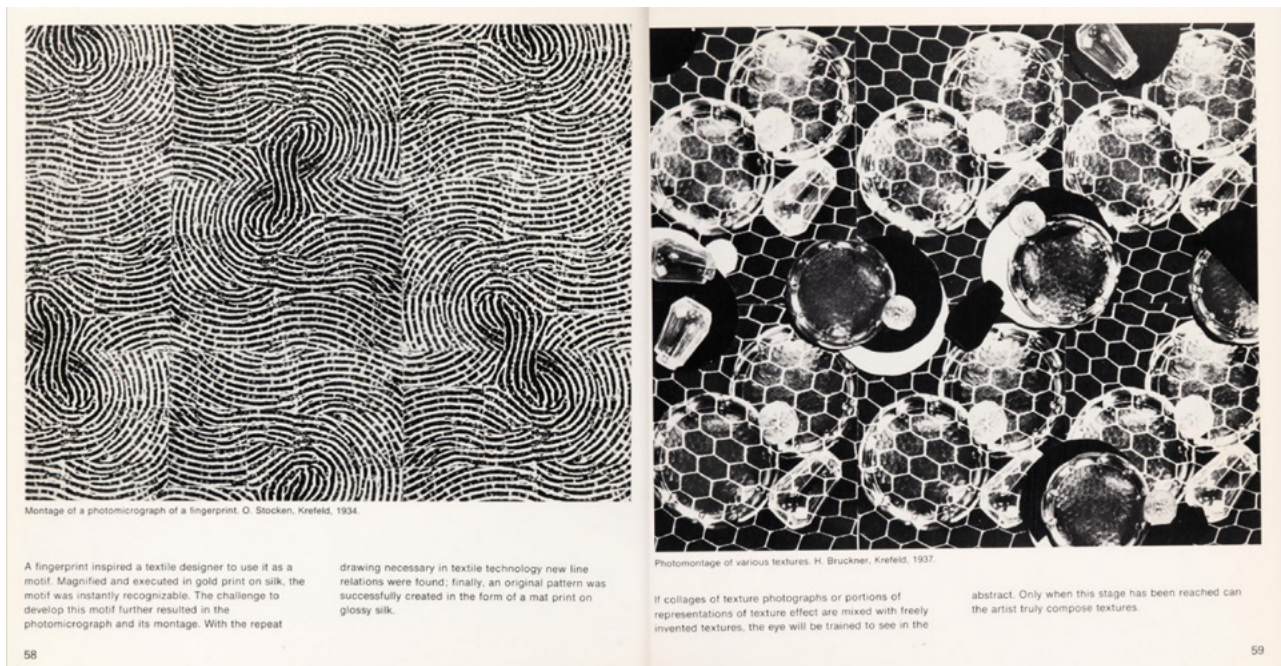
Figure 16. Examples of the works (textures) presented in the book "DESIGN AND FORM. The Basic Course at the Bauhaus and Later" Johannes Itten, 1975, p. 58-9.

On the other hand, Paul Klee, in the "Pedagogical Sketchbook," first published in 1953, compiled a series of records, explanations, and proposals with the aim of exploring the use of graphic elements as analytical tools and extensions of thought concerning the surrounding systems and structures.

> Klee believed that it was possible to explain methods but avoided discussing his own to compel students to find alternatives and new formulas in a more flexible and evolving educational approach (Vega, 2019, p.122)

In his explanations, Klee employed a concept whereby the visual element of line (Fig. 17) was regarded as a "living being" with the capacity for freedom of movement, enabling it to become "anything" as long as the student was willing to imbue the element with life. He presents the concept of using the line element in a poetic way, demonstrating its diversity and versatility, and the possibilities of manipulating it to create different visual and emotional effects. It is important to note that lines can be used not only to define static forms, but also to convey dynamism, harmony and balance.

In his book, "Pedagogical Sketchbook", he develops a system of relationships (Fig.18) and approaches to the student, allowing them to achieve knowledge based on these relationships. Rather than being taught the line element as a set of points, the student is taught to view it as a living, dynamic element that can be used to create the most incredible structural representations (Fig.19).

> The sum total is what Paul Klee calls "Resonanzverhältnis," meaning a reverberation of the finite in the infinite, of outer perception and inner vista. The experience of this dual reality of the SEEN and the FELT essence of nature, impels the student toward... (Moholy-Nagy, 1972, p.12)
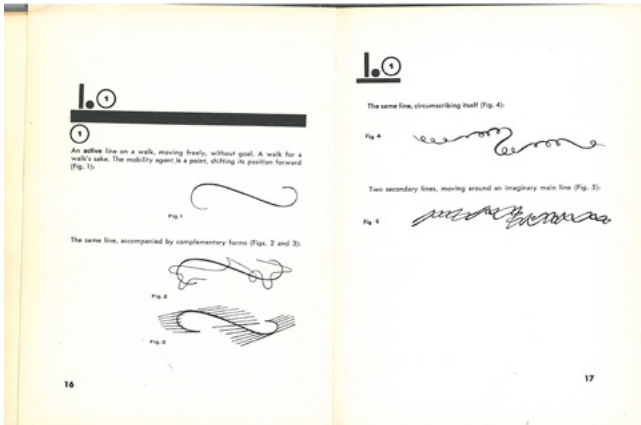
Figure 17. Introduction to the concept of line, presented in the book "Pedagogical Sketcbook" Paul Klee, 1953, p. 16-7.


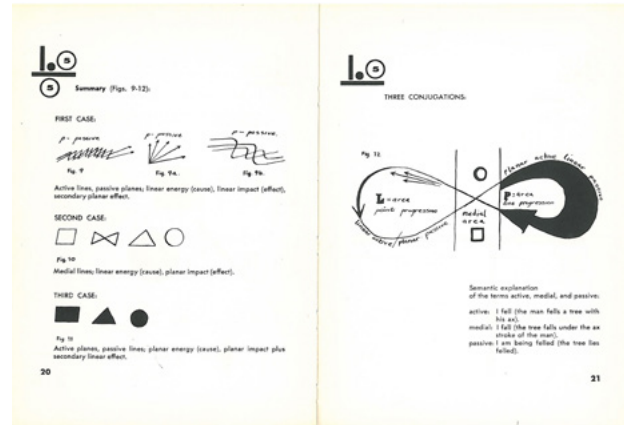
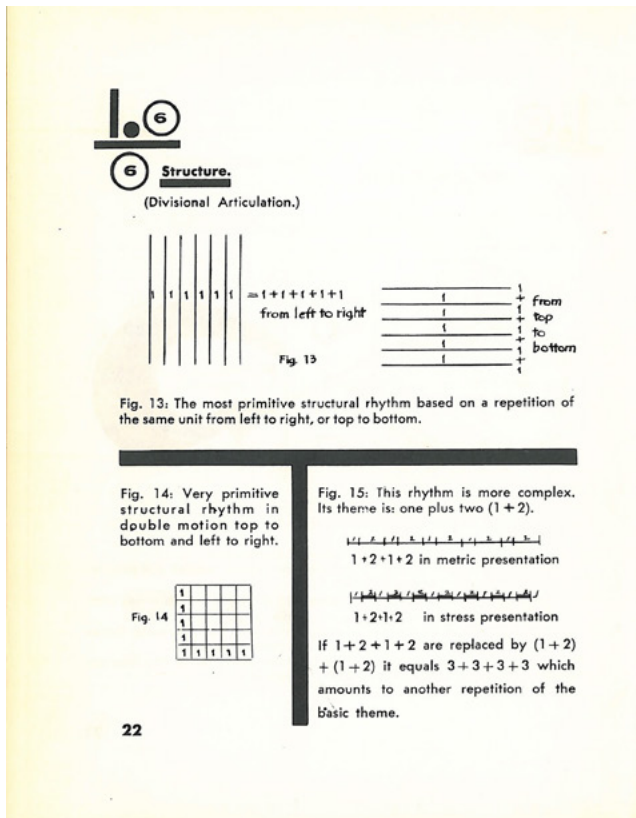Figure 18. Lines and basic forms presented in the book "Pedagogical Sketcbook" Paul Klee, 1953, p. 20-1.



Figure 19. The concept of structure and rhythm in the book "Pedagogical Sketcbook" Paul Klee, 1953, p. 22-3.

## Outcomes

Considering the contributions of these educators, we realize that they shaped the educational landscape of the Bauhaus, providing foundations for contemporary pedagogical practices. The legacy of Itten and Klee extends beyond the past; their ideas inspire educators and artists, emphasizing the importance of a reflective and innovative approach in art education. By incorporating innovative practices and progressive educational perspectives, the textbooks not only strengthen the knowledge base but also encourage the creative flourishing of students, thereby contributing to the development of more capable and conscious individuals in the artistic domain.

Johannes Itten, renowned for his innovative approach to teaching visual arts, brought with him a pedagogical philosophy that valued the connection between artistic expression and a deep understanding of color theories. His contributions influenced not only the Bauhaus but resonated over time, impacting generations of artists and educators.

Paul Klee, in turn, stood out for the unique fusion of artistic theory and pedagogical practice. His vision of teaching focused on the creative freedom of the student, encouraging individual exploration and authentic expression. Klee's methods transcended conventional barriers, stimulating a holistic approach to artistic development.

The reflection on pedagogical practices, the materials used, their implementation, and the analysis of corresponding results played a structural role in the Bauhaus, emerging as crucial elements for its development and, above all, for the longevity of the institution. This legacy persists as an influential model, guiding curriculum planning strategies in future institutions dedicated to art and design education.

We sought to understand the emphasis placed by each teacher on their own reflections and analyses regarding educational practice. The analysis of this relevant information aims, therefore, to structure and define the predominant elements to be incorporated into curricula, pedagogical practices, and interactions with students that we, as educators, undertake. These moments of reflection and analysis, representative of a convergence of diverse information, should promote collaborative dialogues among teachers, students, and the regulatory institutions of the courses. The relevance of this task lies in the analysis of various perspectives and approaches, not limited to programs, content, objectives, and skills, but also involving a progressive deconstruction of the acts of teaching, learning, producing, and constituting knowledge. This process aims to foster a comprehensive sharing of knowledge, resulting in substantial changes in teaching and learning processes.

The ability and opportunity to reflect on our role in the contexts in which we operate, especially in higher education in Design, akin to the experience of the Bauhaus with its educators, becomes pressing. Reflection on the spaces in which they constituted themselves as educators led them to manage and interfere in the definition of curricula, adapting and/or altering disciplines and spaces, as well as publishing data collected in texts and publications. In this way, they transformed their practices into elements of continuous research, sharing with the world information considered relevant to foster discussions and transformative interventions. The theoretical analyses, exemplified by the case of the Bauhaus, highlight the need to emphasize all findings, more or less consistent, that emerge from the experiences between teaching and artistic practice, as well as what is expected from a new generation of artists, architects, and designers.

At the Bauhaus, directors, teachers, and students demonstrated that reflecting on each constituent element of an educational institution can positively contribute to transforming the teaching of Design into a space for sharing and learning, solidifying itself through the diversity of individual contributions for collective benefit. Prominent figures like Klee, Kandinsky, and Gropius advocated for an individualized approach to students, encouraging the pursuit of creative paths and the formation of their own voices. Despite the global recognition of the importance of the Bauhaus, the emphasis has largely been on formal planning issues of courses and disciplines, often mechanically transposed to Design courses in different regions of the world. This generalization was influenced by the emigration of Bauhaus teachers to countries such as England, France, and the United States, as well as by maintaining their commitment to social, economic, and political issues in the places where they taught. It is emphasized that, in these reflections of directors, teachers, and students, consensus was not always established, is not established, or will be established, and it is precisely at this point of convergence that transformations occur.

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# 2. Arts in higher education

# A Cartographic exploration of arts and culture education in French higher education

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**Abstract**

This paper is a follow-up to a presentation at the ECER conference in 2023, Network 29 that focuses on Research on Arts Education. In France, Arts and Cultural Education (EAC) programs are widely available for K12 students. These programs aim to provide students with knowledge, live encounters with artworks in art places, meetings with artists and professionals, and an initiation to the practice of different arts. Interestingly, while the EAC policy emphasizes these aspects for K12, there is a lack of specific provisions for higher education, despite acknowledging arts teaching in this context. The primary objective of this paper is to offer a set of instructions to generate a descriptive map of arts and culture actions in higher education across France. These guidelines are based on a sample of programs and activities featured on the websites of three higher education institutions in Lyon. We note that the programs and activities implemented vary enormously depending on each institution. There is a need to classify them to understand and acknowledge their diverse benefits for both students and institutions.

**Keywords.** Arts and cultural education, Education in art and through art, Higher education policy, Mapmaking

## General description

Arts and Cultural Education (EAC)[1] is an inter-ministerial policy in France. Since the early 1970s, cooperation between the worlds of culture and of education has been the subject of several inter-ministerial agreements (FranceArchives, 2021). Initially centered on the artistic aspect, this cooperation was gradually extended to the various fields of culture (FranceArchives, 2021). Arts and Cultural Education policy is included in the May 2013 decree and the July 2013 law for school refoundation, which is a shared priority of the Ministries of Culture and National Education (FranceArchives, 2021; Gouvernement, 2021). The High Council for Arts and Cultural Education (HCEAC), chaired by the two ministers, in July 2016 presented a "Charter for Arts and Cultural Education", which sets out for the first time the framework for EAC, as an education in art and through art (« à l'art et par l'art »), in ten key principles, recognizing in particular the importance of education through art (Ministère de la Culture, 2017).

Arts and cultural education has several possible translations internationally, revealing the theoretical and political tensions surrounding the notion (Chabanne, 2024). In France, EAC can stands for Arts and Culture Education policy, however, school curricula are far from covering all the expressive, creative and cultural dynamics that are now referred to as the term arts and cultural education (Marie-Christine Bordeaux & Alain Kerlan, 2016). Bordeaux and Kerlan (2016) in a report on the assessment of the effects of arts and cultural education, note that arts and cultural education in France combine three experiences of art and culture. In a later work, Bordeaux (2018) provides detailed explanations for these three experiences (Bordeaux, 2018). The first pole is "seeing" (aesthetic experience). It's a practice of spectator, direct contact with original works under the reception conditions provided by cultural institutions. The second pole is "making" (artistic experience), which involves personal practice in a group setting, with peers and under the guidance of artists and cultural professionals. The third pole is "interpreting" (critical experience), which is related to the culture of art, critical distance, and expression of points of view, this production is based on an individual's ability to act culturally in their relationship with art and others, and to make their links with other cultural experiences; it is distinct from reception and artistic production but is intrinsically linked to them.

We note firstly that arts and culture education in this framework encompasses and goes beyond purely arts education, which in most cases means teaching arts, and opens up to the whole of the cultural field (Bordeaux, 2018). Moreover, it takes into account the cultural dimension of art and the relationship to art (such as knowledge, reflection and critical activities); it is also about opening up to other cultures and responding to the challenges of cross-culture and cultural diversity (Bordeaux, 2018). This point of view is also expressed in the recently established Zero Draft Framework for Culture and Arts Education, which emphasizes the role of cultural diversity and the capacity of critical engagement (Unesco, 2023)

"Bringing arts and culture to life at university means pursuing the ambitious project of arts and cultural education that began at school." (Ministère de la Culture et de la Communication & Ministère de l'Enseignement supérieur et de la Recherche, 2013). Many French universities have developed programs and activities in relationship with arts and culture. "Promoting access for as many people as possible to culture, artworks, and artistic practices." (Ministère de la Culture et de la Communication & Ministère de l'Enseignement supérieur et de la Recherche, 2013). We can observe the same goals in all education levels: arts and cultural democratization is the shared concern of the Ministry of Higher Education and the Ministry of Culture in France. Do these programs and activities fall under the same concept of EAC policy? (Bordeaux, in press) proposed three models of university cultural actions. The "modèle éclairé" (illuminated model), in which the university, as a place of creation, organizes an offer likely to compensate

for a weak or unbalanced public policy in the region. The "modèle opportuniste" (opportunistic model) takes advantage of the opportunities offered by a culturally dynamic region by building a partnership, and the "modèle démocratique" (democratic model), is based on the cultural potential of a population of young students and professor-researchers. We want to map universities' arts and cultural activities and programs via website data to explore the forms of arts and cultural actions developed in France's higher education.

## Methodology

In this section, we describe the methods we used to collect, categorize and visualize the data on the programs and activities related to arts and culture that are offered by higher education institutions in Lyon, France. We also explain the challenges and limitations we faced in the process.

### Data collection

We searched the websites of three institutions (Lyon 1, Lyon 2, Lyon 3)[2] for information about the programs and activities related to arts and culture that they offer to their students. We focused on the programs and activities that are either annual or regularly organized and excluded the ones that are set up only once because we cannot have the full information of every activity from universities' websites. We collected the following information for each program and activity:

- The name and description of the program or activity
- The institution that organizes or hosts the program or activity
- The date and duration of the program or activity
- The type and format of the program or activity (e.g., workshop, exhibition, performance, etc.)
- The partners and collaborators of the program or activity

We entered the data into an Excel spreadsheet and distributed them according to the institutions and the different models that we adopted.

### Data categorization and visualization

We categorized the programs and activities according to the model they reflect. We assigned each program or activity to one of the models, based on the information we collected. We used the RAWGraphs software to create a visual representation of the data. We chose the sunburst diagram, which allowed us to transform the hierarchical structure of the data into a more visualized graph. The sunburst diagram is made up of several concentric circles, with each circle representing a model and each segment representing an activity or program. We did not differentiate between categories or subcategories within each segment due to the small amount of data available. We used the following levels and colours for the sunburst diagram:

- The innermost circle represents the institutions (Lyon 1, Lyon 2, Lyon 3). We used grey for these three institutions.
- The second circle represents programs or activities in the illuminated model. We used different colours for each program or activity.
- The third and the outermost circle represents separately in blue the programs or activities in the opportunistic and democratic model.

The sunburst diagram shows the distribution of the programs and activities according to the institutions and the models. It also allows us to establish and compare the different categories and subcategories of the data.

*Challenges and limitations*

We are trying to categorize the programs and activities implemented in higher education according to the type of experience they provide at first. However, it has been difficult to differentiate between activities and determine whether they provide an aesthetic, artistic or interpretive experience without having clear objectives and implementation plans for each activity. Sometimes, an activity can include multiple key experiences, making it hard to categorize. For example, during a film screening, we aim to provide a spectator experience, but there may also be discussions and exchanges with people after the screening, which would contribute to the interpretative experience. This experience is linked to the other two and takes place with the individual, making it hard to distinguish. Therefore, we chose to categorize the programs based on the different cultural cooperative policy models we've mentioned before. However, we found that these models were not mutually exclusive and exhaustive, and some programs could reflect more than one model. We had to assign them to the most dominant model based on the information we collected from websites. These challenges and limitations affect the validity and reliability of our analysis. Our data and results are not representative and conclusive, but rather indicative and exploratory. We suggest that further research and evaluation are needed to confirm and complement our findings.
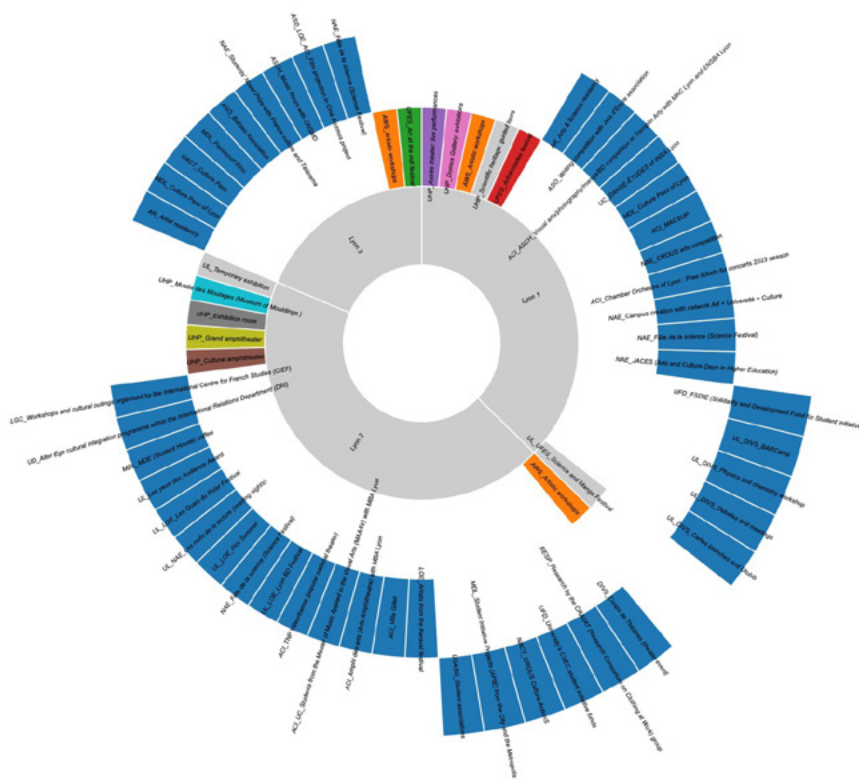
## Outcomes



Figure 1: Arts and cultural programs and activities offered by the three higher education
institutions in Lyon

Several avenues and reflections are revealed to establish a more complete map of programs and activities in higher education in France, through this data collection and visualisation process. First, we can set a study period by collecting all the programs and activities put in place in this period to give a broader vision in the analysis afterwards. Sometimes the information given on the website is not complete, for example, lack of information for a certain period on the website, lack of detail of the activity, etc., and therefore we must also complete the data collection by meeting the managers of the activities to know more details. In addition, we can already strip some possible variables from different models that would serve the maps in the future.

In the illuminated model, there is often participation of heritage and university premises (UHP_), workshops of artistic and cultural practice (AWS_), and the university's festival (UFES_); in these activities, the university is a creative hub that initiates and organizes activities related to the arts and culture. We must pay attention that some university libraries (UL_) are also in this process. For example, they mobilize their documentary resources to initiate the exhibition. In the opportunistic model, we noticed that there is the artist residency (AR_), where the university is the link of reception and thus the artists perform a work of research or creation there. In addition, several categories of partners are included; the art school (ASCH_), artistic and cultural association (ASO_), university courses (UC_), university department (UD_), centre (LC_), artistic and cultural institution (ACI_: museum, orchestra, theatre, institute, etc.), national and local events (NAE_; LOE_), the local authority (MDL_: The metropolis of Lyon). In the democratic model, the universities' student associations (USASO_), the university funding (UFD_), the national action (NACT_), the research group (RESP_) and the diversity of activities (DIVS_) that mobilize the students, the professor-researchers to be actors, are possible variables in the future map.

The aforementioned variables can improve the process of creating a map for the future and facilitate subsequent quantitative analysis. Ultimately, the categorization of artistic and cultural programs and activities may not be confined to a singular approach. It could potentially be conceptualized from multiple dimensions, such as the amalgamation of various experiences and models. This multidimensional perspective could provide a more nuanced understanding of the diverse range of programs and activities in the higher education landscape and could pave the way for future research to better capture the complexity and richness of arts and cultural education in France's higher education.

In conclusion, while France's EAC policy has made significant strides in promoting arts education in K12, there is a need to extend this focus to higher education. This research provides some reflections on the method of description of arts and cultural actions developed in France's higher education. The identification of variables from different models allows for an in-depth analysis of the artistic and cultural policies in higher education.

## Notes

1. The translation of the "Education artistique et culturelle (EAC)" policy from French to English was referenced from the Ministry of Culture website: https://www.culture.gouv.fr/en/Thematic/Arts-and-cultural-education.

2. The programs and activities data are taken from the website:
https://www.univ-lyon1.fr/campus/culture
https://www.univ-lyon2.fr/vie-des-campus/culture-lyon2
https://www.univ-lyon3.fr/culture-1.

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# Exploring 21st-century skills in higher educational dance-related research: a comprehensive review

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**Abstract**

The goal of this study is to present the hypothesized prevalence of research interest in 21st century skills based on the dance research literature of the last decade. Contrary to the typical features of dance-related research (incorporating various methods by different disciplines), i.e., focusing on K-12 education or professional dancers, the present study examines higher education contexts. The aims of our overall research reviewing the literature of the past decade in online databases were twofold. First, to identify thematic and methodological aspects whose results have been published (Lanszki et al., 2023a, 2023b). Second, in the present study, the scope is narrowed down to investigating 21st century skills. According to P21's skills map on arts (Dean et al., 2010) and Scheff et al.'s Dance and 21st Century Skills Poster (2014), the skill set to date involves identical elements. In this comprehensive review, attention is paid to the topic to what extent the latest research in the field of dance in higher education contexts covers the range of desirable 21st century knowledge domains. A common set of review processes is followed to have an overview of the higher dance education research and map its possible gaps. 21st century skills have not proved to be of primary interest in the sample reviewed. However, components of the skill set are discussed and referred to in the papers, which marks the approved significance of the competence field. Future research could focus on detecting and developing university dance students' abilities to more efficiently participate in the 21st century.

**Keywords.** Dance, Higher education, 21st century skills, ICT literacy

## Introduction

Empirical dance-related research in higher education, particularly in Europe, is notably scarce, with a disproportionate representation from English-speaking countries. The value of our current study lies in its assessment of the state of multidisciplinary dance-related research within higher education. The first stage of our overall research encompassed (1) identification of the most frequently studied dance forms in academic dance research, (2) examination of the geographical origins of dance research, shedding light on the dominant countries and their unique research characteristics, (3) analysis of prevailing research methodologies and designs, (4) investigation into the types of research tools and instruments employed, and (5) a review of the central themes and subjects that have garnered significant attention in dance research over the past decade (Lanszki et al., 2023a, 2023b). This second stage focuses on the research interest in the essential theme of 21st century skills based on the studies reviewed.

A recent study by Van Laar et al. (2020) into the 21st century competencies of those who are already employed includes technical, informational, collaborative, communication, critical thinking, creative, and problem-solving skills. The authors' conclusion is that research on the factors that influence communication and teamwork abilities is desperately needed (Van Laar et al., 2020). It might seem contradictory that narrowing the scope to art-related fields leads to an even wider array of skills being investigated. According to P21's[1] skills map on arts (Dean et al., 2010) and Scheff et al.'s Dance and 21st Century Skills Poster (2014), the skill set involves identical components such as critical thinking and problem-solving, communication, collaboration, creativity, innovation, information, media and ICT literacy, flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, leadership and responsibility, as well as interdisciplinary themes such as global awareness; financial, economic, business and entrepreneurial literacy, civic, health and environmental literacy. The question arises, to what extent the latest research in the field of dance in higher education contexts covers the range of desirable 21st century knowledge domains in art and dance, and where there may be gaps.

## Aims and objectives

The present study aims to explore, through the re-examination of the previously reviewed literature from a new perspective: to what extent and which 21st century art- and dance-related skills have been discussed in tertiary dance education research in the last 10 years and where the possible gaps are. Our goal is to offer a brief overview of the current representation of dance- and art-related 21st century skills within dance higher education research, with the primary objective of uncovering the insights.

## Research questions

The first phase of our research was guided by a set of questions and objectives aiming to investigate the geographical trends, research paradigms, instruments, dance genres, and themes in general (Lanszki et al., 2023a, 2023b). The addition to the research questions in this particular phase is to what extent and which 21st-century skills are dealt with in the literature reviewed (n = 69).

## Methodology

In the first phase of our overall research – of which this review is the second part relying on the thematic findings of its preceding study –, a set of procedures detailed by Zawacki-Richter et al. (2019; cited by Lanszki et al., 2023a, 2023b) was followed. A systemiatic review protocol was conducted, and research data from the last ten years focusing on our key questions of tertiary dance education were synthesized. Purposive sampling, which is also referred to as judgemental or expert sampling, was used. Relevant papers were searched in the EBSCO, ERIC, and DOAJ databases with the keywords "dance", "higher education", and "research". The examined sources were selected by the following criteria: the paper must have been peer-reviewed, written in English, and published in the last 10 years (2013-2023). During the screening process, first, ineligible records, as well as duplicates were removed. After that, in the process of evaluating the full texts, further studies were excluded for not matching the research focus or lacking a transparent research methodology. The rest of the sources were prioritized after the weight of the evidence – when important themes & relevant areas were identified (Edwards et al., 2000). At the end of the selection process, the sample of our systematic review consisted of 69 research papers.

The present (second) phase of our overall research is a comprehensive literature review based on the results of the thematic analysis performed in the first phase. The studies including the themes relating to 21st century skills have been re-studied from the perspective of the knowledge domain defined by the 21st Century Skills Map: The Arts (Dean et al., 2010) and *Dance and 21st Century Skills Poster* (Scheff et al., 2014).

The overall sample (n=69) of the earlier, systematic literature review (Lanszki et al., 2023b) has been narrowed down to the subset of those studies which discuss or refer to elements of 21st century skills such as critical thinking, creativity and problem-solving, collaboration and environmental literacy or life and health management skills. These studies have been subjected to a thorough examination to see how deeply they address the particular area of competence. Two studies have been added to the sample, either because of an earlier but thematically relevant work of one of the authors already in the sample (Risner, 2009) or because the author's publication shows a clear fit with the sample both thematically and in terms of the period studied (Lőrinc, 2018). The results are summarized in Tables 1 and 2 and are discussed in the following paragraphs.

## Outcomes and reflections

In terms of findings, a detailed account of the features investigated in the systematic literature review has been published in Lanszki et al. 's *Dance-Related Research in Tertiary Education* (2023) and is now beyond the scope of the present study. The present comprehensive review is intended to highlight the findings relating to this phase of the research investigating what 21st century skills appear in the literature in question.

Table 1. The most frequently discussed 21st century skills

| Authors and Year | Collaboration (n = 12) | Critical Thinking (n = 9) | Creativity (n = 10) | Other Notable Skills |
|---|---|---|---|---|
| Cuellar-Moreno & Caballero-Juliá (2019) | x | x | x | Problem-solving, cognitive participation |
| Petsilas et al. (2019) | x | | | Health and well-being awareness |
| Salcedo et al. (2017) | x | x | x | Self-reflection, interdisciplinary awareness |
| Risner (2009) | | x | x | Information and ICT literacy, integration of mobile devices |
| Ehrenberg (2019) | x | x | | Critical thinking about digitalization, remote learning issues |
| Gaunt and Treacy (2019) | x | | | Cooperative learning |
| Patton et al. (2022) | x | | x | Impact of black creative expression, dance as a language |
| Duffy (2015) | | | | Health literacy, self-care practices |
| Duffy (2018) | x | | x | Healthy self-care practices |
| Kearns (2016) | x | x | x | Circular assessment approach, fitting for contemporary dance |
| Mills (2014) | x | x | x | Critical reflection, distance thinking, collaborative dance creation |
| Lőrinc (2018) | x | | x | Dance as a means of communication, body as text |
| Risner & Barr (2015) | x | x | x | Socio-cultural context, diversity awareness, problem-solving |
| Roe (2017) | x | x | x | Problem-solving, critical thinking, creativity |
| Salcedo et al. (2017) | x | x | x | Self-direction, innovation |

Because of its thorough and detailed summary of the relevant art-related skills, the structure of *21st Century Skills Map: The Arts* (Dean et al., 2010) including the disciplines of visual arts, music, dance and theatre is followed when examining the content of the target literature. In the context of dance, first, the findings regarding the three most frequently discussed, apparently domain-specific 21st century skills of collaboration, critical thinking and creativity (Table 1) are presented in addition to the information and communication technological (ICT) aspects considered in the respective studies. Next, the appearances of the necessary personal qualities and abilities are shown (Table 2). Finally, the presence of interdisciplinary themes is revealed.

Themes of 21st Century Skills including critical thinking, creativity, collaboration, are referred to by Cuellar-Moreno & Caballero-Juliá (2019). They emphasize the importance of thinking skills as competence indicators in the dance teaching and learning process. In their study based on a mixed-methodology research contrasting Command Teaching Style with  Problem-Solving Teaching Style, they argue that the latter is not only preferred by the students (because of self-paced work and creativity development opportunities), but the level of cognitive participation is much higher in this case (Cuellar-Moreno & Caballero-Juliá, 2019).

Such 21st century themes are mentioned by other studies (Petsilas et al., 2019; Salcedo et al., 2017). Similarly, collaboration is also part of the topics discussed (Petsilas et al., 2019). In their Proposal for Higher Dance Studies, Salcedo et al. (2017) reach the conclusion that training in dance techniques offers more than just specialization in those techniques. At a personal level, engaging in self-reflection regarding one's own bodily practices can foster the development of critical thinking skills. The relationship between the cognitive ability of problem-solving, the social skill of cooperation and creativity is highlighted by Cuellar-Moreno & Caballero-Juliá (2019).

Information and ICT literacy is also part of 21st century skills. In 2009 already, Risner called for the necessity of integrating mobile devices in dance education as students prefer the use of digital technology, which allows for social networking and collaboration on multimedia platforms (Risner, 2009). Digital technologies, however, could also be the target of criticism or concern. Ehrenberg (2019) draws a parallel between the issues raised by digitisation in libraries and at institutions awarding dance degrees. The removal of the physical books from the library is, she states, similar to the 'removal' of the bodies of dance students (studying remotely) from the campus. Learning digitally and remotely brings up difficult issues for dance degrees, for instance, where physical presence as well as "thinking through doing", are significant components of the knowledge created (Ehrenberg, 2019, p. 6). On the other hand, the library-based collaborative choreographic project Ehrenberg describes  accentuates the value of facilitating critical thinking about the functionality of institutional routines. Gaunt and Treacy (2019) also emphasize that cooperation and collaborative learning are progressively perceived to be essential and adaptable attributes in one's career working in an ensemble.

When Kearns (2016, p. 2) contrasts the traditional, hierarchical assessment method with the more democratic circular assessment approach influenced by the somatic practices of dance, whether or not it is deliberate, she relates the favoured assessment method to the 21st century skills of creativity and critical thinking. According to her, "the circular construct of self-, peer-, and faculty critique allows for substantive critical evaluation in both technique and choreography class…" She also regards the circular evaluation method as more beneficial because it is more fitting for the values represented by the professional dance world of contemporary dancers. Besides, she argues that the involvement of the dancers or choreographers in the critique of the movement is more relevant for students to apply as they are "invited to be creative participants and not just silent mechanical bodies regurgitating movement." The same idea is expressed by Petsilas et al. (2019) when calling for the necessity of inviting students to collaborate with each other and the teacher in dance classes in both reflection and goal setting. "A proactive and collaborative approach … has the potential to transform the dance classroom from a passive, mimetic learning space to an active and engaged space (Petsilas et al., 2019, p. 22)."

Dana Mills (2014) refers to dance as a "critically reflective practice" (Mills, 2014, p. 395) in which one must question the outdated ways of giving in to the choreographer's instructions without a "critical distance" (Mills, 2014, p. 397). In her work on how dance itself can be a political act, she compares the processes of dance choreographing, reactions to states of political unrest, and writing a doctoral dissertation concluding that  they all need the ability for the actors to distance themselves and think beyond what is physically present and create alternative spheres of appearance, which could take shape in the form of dance created collaboratively  as a means of communication. In another politically infused study, Patton et al. (2022) underscore the impact of black creative expression on knowledge production. In this respect the latter two publications, although it is not explicitly stated, could be associated with civic literacy, which is about political awareness and the ability to change. Collaborative dance experiences  function as "anti-oppression opportunities" and "critical spaces of student development" in Patton et al. 's (2022)

work. These authors also emphasize the power of dance and the dancers' body as a language, a means of communication. Although not part of the selection of articles reviewed, the same idea is reflected in the book by reputed contemporary dancer Lőrinc (2018) titled *A test mint szöveg [The Body as Text].*

By referring to the teacher training standards of dance teacher candidates, Risner & Barr (2015)  base their approach on the following principles: (1) dance should be perceived from socio-cultural contexts; (2) there should be an understanding of the significance of diversity in educational environments; (3) learning should be a problem-solving experience; (4) meaningful critique and assessment should be based on interdisciplinary awareness; (5) experiential, collaborative learning should be facilitated; (6) inquiry-based analysis and reflection should be part of the training process. This pedagogical approach incorporates many of the 21st century skills, such as social and cross-cultural skills, critical thinking, problem-solving, communication, collaboration and creativity. Collaboration, creativity, problem-solving and critical thinking are in the centre of Roe's (2017) study questioning the dance institutional practices in the 21st century United Kingdom, where for the sake of institutional transparency, ambiguity necessary for a cognitive problem-based dance class challenge is excluded. Self-direction, innovation, and collaboration are the terms from the 21st century skills set most typically relatable to a role-play-based experience about a teaching practice proposal, where the participants' (playing the role of the teacher, the student or the observer) narratives were analysed (Salcedo et al., 2017).

Regarding the appearances of the necessary 21st century personal qualities and abilities, as shown in Table 2, the aspect of initiative and self-direction was mentioned by the most authors (n=8), the category leadership and responsibility was the second most frequently mentioned characteristic (n=6), flexibility and adaptability appeared to be the third most frequently referred to (n=5) followed by social and cross-cultural skills (n=3),  whereas productivity and accountability were dealt with by none. The representation of the qualities suggests the significance the dancer researchers attribute to them as essential ones in the context of  creative and collaborative activities of intercultural groups of people inherently reliant on  one another or (in the case of the last category) the non-quantitative nature of dance art.

Table 2. The mentions of 21st century personal qualities and abilities

| Authors and Year | Flexibility and Adaptability | Initiative and Self-direction | Social and Cross-cultural Skills | Productivity and Accountability | Leadership and Responsibility |
|---|---|---|---|---|---|
| Cuellar-Moreno & Caballero-Juliá (2019) | x | | | | |
| Duffy, A. (2019) | x | x | | | x |
| Duffy, A. (2015) | x | x | | | |
| Gaunt & Treacy (2019) | x | x | x | | x |
| Johnson et al. (2019) | | | x | | x |
| Kearns, L. W. (2016) | | x | | | |
| Patton et al. (2022) | | x | | | |
| Petsilas et al. (2019) | | x | | | |
| Risner & Musil (2017) | | x | | | x |
| Roe (2017) | | | | | x |
| Salcedo et al. (2017) | x | | x | | x |
| Szászi & Szabó (2021) | | x | | | |

Among the interdisciplinary themes, only health literacy-related topics are referred to by the authors, for example, Cuellar-Moreno & Caballero-Juliá (2019). Healthy self-care practices are discussed by Duffy (2015; 2018). The author investigated post-secondary dance faculty's challenges, for instance, the impact which being exhausted from overworking has on their own lives and the test of keeping up with sound taking care of oneself practices. The project described by Petsilas et al., 2019) is related to the health and well-being awareness of the dancers as well. According to the authors, the group's ability to "become a self-efficient ensemble" can be enhanced via the collective and collaborative sharing of experiences, which is a form of social learning. Since Bandura's (1977) social cognitive theory, it has been known that self-efficacy is an individual's belief in his or her own ability to succeed in a certain field, among others, in health behaviours and well-being. In the world of dance, where avoiding injuries, following strict dietary rules and relieving stress are essential, researchers naturally find health-management a central theme to focus on. Although other interdisciplinary themes, for example, global awareness also appear in dance productions (Loeffler-Gladstone, 2020), they appear to be beyond the scope of recent dance-related research. Studying dance companies from the financial, economic, business and entrepreneurial aspects or in other words the management practices, might not be the research field of researchers who used to be dancers themselves with an artistic mind.

To sum up, whereas the majority of 21st century themes suggested by *21st Century Skills Map: The Arts* (Dean et al., 2010) and Dance and 21st Century Skills Poster (Scheff et al., 2014) have been covered or referred to in studies on dance-related research in higher education in the last decade, there is no elaboration on information or media literacy. Only mobile devices and digital technology are mentioned, which are in connection with ICT literacy. Furthermore, no explicit mention of the 21st century skill set elements productivity and accountability or the interdisciplinary themes such as global awareness; financial, economic, business, entrepreneurial, civic or environmental literacy was detected.
A multitude of research topics within and besides 21st century dance and art-related themes are to be explored in the future. Focusing more on the interdisciplinary themes that might facilitate the development of more advanced management skills of dance projects, or raise awareness of global issues or aid the improvement of dancers' information, ICT or media literacy could contribute to a better world. In addition, it could bring along novel measurement tests to be analyzed in order to outline further development processes.

## Notes

1. Partnership for 21st Century Skills [often referred to as Partnership for 21st Century Learning and abbreviated as P21, now part of Battelle for Kids since 2018] is an organization founded in 2002, uniting U.S. leaders from educational, governmental and business spheres whose aim is to promote the development of education policies and practices including innovative teaching-learning methods based on evidence. The organization – now under the name Battelle for Kids – intends to ensure that every child should have the opportunity nationwide to enjoy 21st century learning (Battelle for Kids, n.d.).

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# Documentary Theatre Practice to the Service of Engineers-Students Agro-Ecological Transition Education

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**Abstract**

The aim is here to consider an artistic practice on Agro-Ecological Transition (AET) from January 2022 to June 2023 in Southern France, in the Insitut Agro. The activity was thought, mixing teachers from agricultural highschools and agronomy engineers students. In time of increasing wish of bifurcating from the higher education, the students were keen to live an artistic experience so as to approach an other way of teaching AgroEcology Transition, at the core of their future profession. The interest for the teachers was to live an unique experiment that is also very usefull as the AET is the priority of the Agricultural Vocational Education. The documentary theatre (based on documents to create a dramatisation) was chosen to experience otherwise the AET teaching sessions and understand the developing skills. It lasted one week in dec 22, then conferences and happenings made by the students took place till june 23. As the focus in the Agricultural Education is very much intelectual, with less practice, this experiment represented the opportunity of debating, discovering a new artistic approach and create all tougether a representation in front of the public. Therefore, it developed new skills that have been mostly emotionnal, social, communicative ...it also helped understanding the specific students involvment at a time of climate change.  Finally the AgroEcological Transition Education framework is still uncertain, controversial and non-stabilized. So this experiment helped reconsidering transition learning experience, through theatre paradoxily real and feasable, and developping new efficient skills.

**Keywords.** Artistic Practice, Agroecology, Sustainability, Transition, Sensitivity

## General description on research questions, objectives and theoretical framework

The objective of this proposal is to consider the documentary theatre practice experienced through a workshop on the topic of Agro-Ecological Transition (AET). It took place during one week in December 2022, in Florac campus near Montpellier. The partners worked at the crossroads of the National Support Disposal (NSD) of the French Agricultural Training System and the nation-wide Institut Agro (Montpellier-Rennes-Dijon) higher education school for agronomy engineers. The documentary theatre practice was chosen in order to otherwise experiment the usual AET sessions and understand the skills development. On one hand, the sensitive dimension of artistic practices associated with risks taking, decision making and self-esteem has already been introduced (Covez, 2022, 2018, 2016) as well as the intercultural one (Covez, 2009). On the other hand, the capacity of embodying the agronomy concept through design and culinary theatre has also been showed (Covez, 2017a). Then, since 2019, the Agro-Ecological Transition has become the priority of the institution. This project creating a mixed documentary activity (teachers of the agricultural education/agronomy students) has been financed thanks to a mix of a higher agricultural institute initiative fundings and the ministry of agriculture through the NSD. The framework of the "human agroecology" is used so as to underline "the social representations that structure the relations between individuals, social groups, their practices and environments" (Audet & Gendron, 2012). Besides, the current academic discussion on transition concept (Hervé, 2022) makes it quite valuable. In addition, the systemic and critical agro-ecologies are not sufficient to analyse the representations and socio-cultural practices that have to change as the lecturers and teachers communities attest. Then, the theatre practice mixing teachers and L3 agronomy engineer's students, represent a real educational and pedagogical opportunity to experiment a new way of learning the AET.

So the question is: Can a documentary theatre practice be put to the service of the engineers- students AET education? Actually, there is no clear definition of agro-ecological education (AAE) but rather a focus on teaching professional, technical and agricultural matters. IA in fact considers AET skills as made of : knowledge (methods, evaluation); know-how (systemic, holistic); social (together conceiving) and changing learning. So, our aim is to deepen learning AAE through an emotional, bodily, cognitive, individual and collective creative activity to facilitate a better understanding. As any social activity involving human beings, it is very complex. Furthermore, the transition education has to be considered in the global climate change and after the Covid pandemic period that makes it not only cognitive but also involving a very high level of emotions and eco-anxiety. The hypothesis is that documentary theatre on AET represents a tool for educational change regarding it. On one hand, the practice through different status and ages can create a debated, shared and renewed understanding of the transition notion, and how to learn it differently. On the other hand, the artistic mix activity can help creating a specific educational situation that can enable the embodiment of change reinforced by the inevitable final work representation.

Therefore the project has been designed in the aim of exploring the developed skills: cognitive, communicative, relationship, emotional, creative, intercultural, intergenerational… that can be put to the service of working as a future engineer in transition. Having a deep look at the mix documentary theatre activity allows better understanding of this experiment advantages first of all, for the students as their profession consists urgently in change making with their customers, partners, and own enterprise. The difficulty here lies in the tension to open up to both the sensitive and intellectual complex dimensions of an AET expressive and communication activity that leads to a show and sharing with the public.
We finally think that documentary theatre practice methodology, based on individual and collective sources and concept work, helps creating a quite integrating and balancing situation with cognitive and body emotional activities. The acceptance of the sensitive process inside people all together enriches but

also provokes some unbalance and challenges we have to face to keep on sharing, acting and creating. Taking risks in different ways or dimensions could then be put to the benefits of a transition education.

A diversion pedagogy realised in the world of arts out of the day to day life, could on the contrary represents the possibility of living ideas, emotions, social situations as real. Our point of view is to bring back to the knowledge that artistic practice belong to humanity and has an impact on the individual, the group, and the partnership. Moreover, taking into consideration the theatre practice thanks to A. Boal (1996), allows thinking the process through exercises put to the service of the empowerment. By the way, within the educational system the theatre practice is often thought as responding to a need: of improving expression, writing, foreign language…essentially for oral exams reasons and exceptionally considered thanks to what it brings to the person "in her/himself". A deepen understanding of its issues such as "new skills desire", "self-construction or realisation" or "future projection" has been studied (Hugon & alii, 2011) for occasionnal theatre practice, without any professional aim. The methodology used by the action-research-formation on one side and the documentary theatre itself on the other side, both contribute to the experiment.

## Methodology, methods, perspectives, participants, analyses

The ethnographic methodological approach consists in pre and post interviews with 5 agronomy students, 2 teachers and the artist Théo actor, dramatist and director, who prepared the project one year long, having one meeting per month with the trainers' team. The aim is to focus on the students' interviews and participative observations as it represents one unique mix workshop. After the theatre practice in Dec 2022, the action has been completed with three days in Rennes in April 2023. As a matter of fact, the funding was accepted because the project was participating to three dimensions: inter-schools living-together enhancing, AET and well-being. It was therefore focused on students and their capacity to communicate on it. Then the educational teams in Florac and Rennes decided to participate for the first time to the National Days for Art and Culture in Higher Education. The students who were in 2022 very much interested in analysing and presenting the theatre experience, were less involved in the preparation of the days, as they were coming soon. The second step of the project showed difficulties that were exactly representing the question of the students' commitment. As it was led in the name of the institution, they were declining the opportunity of acting in happenings. Finally, feeling autonomous and at the same time accompanied by Théo and Florac studies ingeneer, they realised the happenings. The fear of acting in front of peers was meanwhile increasing as the days of action were approaching. So, the youth engagement (Bordes, 2015) is actually defined by the students themselves within but also at the margin of the institution. And the documentary theatre contains its methodology.

There are many various documentary theatres (Magris & Alii, 2019), but that one used is defined by its designers (Théo & Louize, 2022) as a *récit fictionnel* (fictional story). This means that creation is a whole process made of debates, growing shared concepts and problematics that lead to images, metaphors. The definition and creation of scenes thanks to *mises à plat* (getting things straight) methodology are also enriched by theatre and improvisation exercises. The participants chose food injustice, social inequality, clothing resale shops as well as Antigone and clown characters to express their feelings: boredom during AET sessions, desire to be part of the future world change makers, and at the same time feeling like

quitting a higher education that can lead to high positions in polluting food or agricultural companies. Nevertheless, the happiness of being able to speak, talk and express their ideas, feelings, anxiety and wish to transform things to improve and save life at a critical time of the climate change was very high. Even getting upside down by the responsibilities assigned to the agronomy engineers confronting the reality, they were very much expressing their joy of participating and how it helped them grow up and trust the adults. Also, the 30 minutes long representation in Florac was quite meaningful and applauded! And the students asserted that the theatre practice started on Sunday when driving from Rennes in Bretagne to Florac in Southern France, presenting it as a "real adventure". Discovering the specific Cévennes middle Mountains was also very meaningful to them, as territory represents a real issue of their future work. Finally, students and teachers were very much curious to work together and participate to the action-research, each of them sharing about their education, life and feelings.

At first, nothing on the expected skills had been said, so to let them get aware first and then explain what they thought they developed. It represents the opportunity to make people talk of their different skills representations according to IA Rennes or Florac and teachers or students. The quality action-research-formation is then used so as to get a comprehensive view of the expectations or representations at work from cultural, life skills, psycho-social competencies, to the eight core competencies (Robinson & alii, 2022). Each participant therefore wrote a practice journal, for him/herself. Another NSD theatre training is scheduled in Dec. 2023 using the same methodology made of journal, pre and post interviews and participating observations to better understand the developed skills on the teachers' point of view. It will enlight this on a renewed way.

## Outcomes, results, reflections, insights

The documentary theatre lasted 4 days. We saw a crucial need from each of the participants to express oneself, on the emotional, cognitive, socio-economical, agricultural but also political points of view about AET. Eco-anxiety and eco-anger emotions were expressed. A constant critic of the way of higher education teaching the transition was present, diminishing their wish to study on. A need for educational change raised. The mix teachers/students practice was much appreciated as an intergenerational work "surprisingly great to make" according to the students whereas the teachers had no doubt on the mix practice. The results focus on the documentary practice but within the context of students' bifurcation, the action-research-formation is coming across deeper understanding of the students. They took freely the risk of participating and kept on asserting themselves on a very collective autonomious way. One of the students'needs was to recognise their freedom not only of speech but also behaving, considering it as ethical (deciding their level of implication in the Arts Culture Days bythemselves). It seems that the aim of embodying the agro-ecological transition has been made as students came back to their establishment with the constant will and need of change and acting so as to make things for good! The benefits were very important on their engagement, creating or participating to several local or nation-wide conferences and radio program and interviewing a previous prime minister. The students asserted their eco-anxiety diminished and their wish to transform that experience into reality after their exams appears to be for good, according to their own progressive evaluation of their situation. They say they've learnt the "know how" on AET education, that institution cannot offer through too theoretical sessions. "Revelation, happiness bubble, a caress time... and the feeling of making it for real, living it!" are part of their words. A transformative process is going on, on emotional, creative, critical skills, and the reassurance that a change can be, if adults respond in order to support their burden. "The proof we can trust adults...It is also the beginning of a big story for some of us, this is what sew our collective commitment...we grew up !".

The transformative process has occurred involving in a common bodily artistic practice, quite emotionally and cognitively demanding. The creativity is at the core of the whole process which demands to accept the difficulties and act through them, with fear, but reinsured by others and the common action. It seems that transforming AET traditionnal courses into AET education through documentary theatre allows enacting in a way, not in the "real life" but living as a mean to rediscover the joy of feeling one, when believes are coherent with action. Agro-Ecological Transition education can lead to an innovative pedagogy where transformation is an inner and outside process. The transformation through the body with others allows being transited to another state of mind or capacity of acting that is deeply wished. The developed skills through this living experience are sensitive, social as well as individual. The vivance capacities (Covez, 2017 b) close to life skills, show to be of great need in climate change time. "The memory of a peaceful haven, out of time and worries" tend to show the healthy connection to one'self, others and the actual time, made of protection, responsibility and calm. Transition needs trans/formation to make meaningful, coherent and effective, when things are made together giving the feeling it can be real. AE transition education needs to put now, the emphasis on transmitting the crucial need of transforming, co-operating, co-acting, and co-educating. The result can be as a Professor commented "I better understand the documentary theatre approach, it makes me think of the appropriation by the subject, on a sensitive way which is systematically depreciated...instead of purely intellectual aspects of our teachings. That's of a great efficacity !".

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# Personal Growth among University Students: The Effects of Savoring Art, Self-Efficacy, Subjective Well-Being, and Learner Characteristics

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**Abstract**

This study explores implications on students' sense of personal growth by focusing on the students' learner characteristics (learning disabilities, weekly learning/working hours, and parenthood) and personal characteristics: savoring art, self-efficacy, and subjective well-being. The sample consisted of 351 students from Israel, the USA, Canada, and the UK (M = 27.95, SD = 8.82) of which 91 were males and 260 were females. An ordinary least squares (OLS) regression analysis was conducted to test the effects of learner and personal characteristics on personal growth. The model was conducted in two discrete steps. In the first step, demographic variables that had a significant effect on the dependent variable in the preliminary analysis were inserted into the model. In the second step, to test the effects of the theoretical variables above and beyond the effects of the demographic variables, savoring art, self-efficacy, and subjective well-being were added as subsequent independent variables. Results indicate significant positive effects for savoring art, self-efficacy, and subjective well-being on personal growth, with no significant effects for any learner characteristics. The results also suggest that personal growth should be explored as a potentially fostered quality among students. Suggestions for follow-up studies and the study limitations appear in the discussion.

**Keywords.** Personal growth, Savoring art, Self-efficacy, Subjective well-being, Learner characteristics

## Introduction

This study explores the implications of students' psychological and learner characteristics on their personal growth (PG) as a possible significant indicator of an effective learner. Self-efficacy, subjective well-being (SWB), and savoring art are connected to effective learning and academic achievement (Lee et al., 2021) and are explored in this study as predictors of PG. Given PG's prediction of motivation for learning (Schmidt, 2014) as well as the importance of motivation for maintaining and successfully accomplishing learning tasks (Schunk & Usher, 2012), the study focuses on ways of achieving aspects of effective learning, particularly relevant at times of popularity and expansion of online learning (Castro & Tumibay, 2021; Tohidi & Jabbari, 2012).

Previous studies have attempted to profile an effective learner, looking at the goal-oriented learner who adopts the right strategies and reflects on their work (McTighe & O'Connor, 2005). Some studies have aimed directly at learning strategies, best applied for a certain goal, or addressed the proficiency in adopting learning strategies (Bruen, 2001; Chamot, 2014). Others have focused on teaching strategies and flexibility in adapting them to the need of the times (Debiec, 2017; Hallam et al., 2017; Vaizman, 2022; Vasil et al. 2019). Additionally, psychological aspects of the learner have been examined to point to desired qualities and conduct while facing academic challenges (Nadler, 1998; Harpaz & Vaizman, 2021; Vaizman & Harpaz, 2022). This study, therefore, focuses on possible influencing factors on PG, recognizing its significance towards effective learning.

### *Personal growth and effective learner*

PG refers to an evaluation of the self in the search for continuing growth, attaching life's meaning to personal development (Ryff, 1995), involving an active and intentional action towards its fulfilment (Robitschek, 1998). Ryff (2014) also refers to the term as one's use of the learner's talent and potential. A sense of growth can substitute for lack of resilience and assist in battling erosion (Taku, 2014) and can come in the form of gratitude and a sense of purpose (Swaab et al., 2017). PG was found to be a predictor of motivation for learning (Schmidt, 2014) as well as for academic achievement (Malik et al., 2013).

Though PG was linked to the Big 5 (Schmutte & Ryff, 1997), studies have most commonly explored its effect on other variables. Rarely, however, (i.e., Shigemoto & Robitschek, 2021) was the way to achieve it examined. Furthermore, strengthening of the personal growth initiative was studied as a way to achieve organizational success (van Woerkom & Meyers, 2019), yet it is not to be mistaken with PG. While PG is a psychological characteristic referring to ones' personal needs, the personal growth initiative is the possession of skills for self-improvement (Robitschek et al., 2012). Given PG's contribution to resilience and motivation for learning (Schmidt, 2014; Taku, 2014), the possible malleability of PG should be explored and this study examines the effect of other personal and students' learning characteristics on it.

### *Personal growth and personal characteristics: savoring art, subjective well-being (SWB) and self-efficacy*

The study focuses on three personal characteristics that may connect to PG which rely on positive strengths of the individual: savoring art, SWB, and self-efficacy.

First, the need for continuing growth and the need for the consumption of art are close in nature (Lee et al., 2021). Savoring art, unlike art consumption, is the joy and appreciation one has towards art (ibid.). Leaning on the definition of openness to experience scale (DeYoung et al., 2007), Lee et al. (2021) defined savoring art and found a positive connection between it and SWB. This connection is consistent with

the positive relation between openness to experience and well-being (Strickhouser et al., 2017) and the relations between openness to experience and academic success (Blickel, 1996).

The second characteristic, SWB, estimates a person's satisfaction with their life (Seligman, 2002), leaning on their personal, cognitive, and affective evaluation of it (Diener, 1994). Both SWB and academic success are considered to be indicators of positive psychological functioning (Suldo et al., 2006). Meta-analysis by Bücker et al. (2018) found stable medium correlations between SWB and academic achievement, across various levels of demographic variables, different domains, and measures of SWB. In the current study, rather than focusing on academic achievement, the focus is on students' PG.

Self-efficacy is considered a key quality in the ability to cope with challenges and sustain an academic course (Pajares & Urdan, 2006). Defined as one's belief in their ability to successfully complete a task (Bandura, 1977, 1997), self-efficacy is considered among a person's coping resources while facing challenges and is associated with active approaches towards achieving a goal (Van den Brande et al., 2016). Self-efficacy was linked to academic success (Roick & Ringeisen, 2017; Zajacova et al., 2005), to other coping resources, like grit and help-seeking orientation (Harpaz & Vaizman, 2021; Harpaz & Vaizman, 2022) as well as to well-being (Andretta & McKay, 2020; Karademas, 2006). Moreover, Wang et al. (2008) demonstrated the positive connection between self-efficacy, learning strategies, learning motivation, and the academic achievement of distance learners.

### The Current Study

In the current study, savoring art, self-efficacy, and SWB were measured among students as possible predictors of PG. Although studies presented in the literature review indicated correlations between SWB, self-efficacy, and savoring art, no study has examined the relationship between these characteristics and PG among students, taking into account learner characteristics. PG's correlation to academic success (Malik et al., 2013) suggests that it might be worth exploring whether it is affected by learner characteristics which include learning disabilities and/or attention disorder, weekly learning hours, weekly working hours, and parenthood. Moreover, learning experience and achievement are also affected by time spent focusing solely on it, avoiding other distractions, including extracurricular activities which often create tension between them and academic efforts (Buckley & Lee, 2021). Learner characteristics are therefore a complementary aspect to the three personal characteristics explored here.
Thus, the aim of this study is twofold: first, to explore the predictive association between students' learner characteristics and PG; second, to provide evidence regarding the relationship between personal characteristics (i.e., savoring art, self-efficacy, and SWB) and students' PG in order to identify factors that may foster PG.

## Method

### Participants and procedure

The sample consisted of 351 students - 168 Israeli and 183 from Anglophonic countries (USA, Canada and the UK) between the ages of 18 and 62 (M = 27.95, SD = 8.82) of which 91 were males and 260 were females. Among the participants, 17.1% self-reported to be suffering from learning disabilities and/or attention disorders. Additionally, 16.5% of the sample reported studying for less than 5 hours a week, 32.2% reported studying between five to nine hours a week, 22.8% reported studying between 10 to 14 hours a week, 11.7% reported studying 15-19 hours a week and the remaining 16.8% reported studying for more than 20 hours

per week. Regarding weekly hours spent working, 33.3% of the sample reported working for less than 5 hours a week, 9.4% reported working between five to nine hours a week, 8.5% reported working between 10 to 14 hours a week, 6.8% reported working 15-19 hours a week and the remaining 41.9% reported working for more than 20 hours per week. Furthermore, 25.1% of the sample reported having children. The Israeli participants answered a Hebrew version of the study questionnaires while the Anglophonic participants answered an English version of the questionnaires. When testing for sample differences in both groups, it was found that the Israeli participants were older (M = 31.49, SD = 9.55) than the Anglophonic participants (M = 24.68, SD = 6.59) (t(293.59)=-7.70, p < .001, Cohen's d = 0.83). No difference in gender was found between the samples ($x^2$(1)=.11, p = .74). However, Israeli participants reported suffering from more learning disabilities and/or attention disorders (24.4%) in comparison to Anglophonic participants (10.4%) ($x^2$(1)=12.15, p < .001). Furthermore, Israeli participants reported studying for shorter periods of time per week (less than 5 hours (22%) and between 5-9 hours (40.5%)) in comparison to Anglophonic participants (less than 5 hours (11.5%) and between 5-9 hours (24.6%)). Anglophonic participants, on the other hand, reported studying for longer periods of time per week (10-14 hours (26.8%), 15-19 hours (14.8%) and more than 20 hours (22.4%)) than the Israeli participants (10-14 hours (18.5%), 15-19 hours (8.3%) and more than 20 hours (10.7%)) ($x^2$(4)=25.64, p < .001). Weekly hours spent working exhibited an opposite pattern of results, with Anglophonic participants reporting fewer hours of work (less than 5 hours (50.3%) and 15-19 hours (8.2%)) in comparison to Israeli participants (less than 5 hours (14.9%) and 15-19 hours (5.4%)) while Israeli participants reported more weekly work hours (5-9 hours (10.1%), 10-14 hours (8.9%), and more than 20 hours (60.7%)) in comparison to the Anglophonic sample (5-9 hours (8.7%), 10-14 hours (8.2%), and more than 20 hours (24.6%)) ($x^2$(4)=61.47, p < .001). Lastly, the Israeli sample reported having more children (39.3%) than the Anglophonic sample (12%) ($x^2$(1) = 34.66, p < .001).

All the participants answered the questioners online. The Anglophonic sample, collected by Prolific – an online participants' recruitment for surveys, received payment (£6) for their participation. The Israeli participants received 30% of their participating duties credit as university students. All participants signed an informed consent form prior to participating in the study, in which the purpose of the study was explained and anonymity was guaranteed. It took approximately 15 minutes to answer the questionnaires; the order of the questionnaires corresponds to the reporting in the Instruments section. For the statistical analysis, we used SPSS 27.

## *Instruments*

### Background Questionnaire
Included questions regarding gender, age, diagnosis of learning disabilities or ADHD, SES, study time per week, time spent in paid employment per week, and parenting.

Savoring Art Questionnaire Lee et al. (2021) was used to measure enjoyment of art in daily lives (e.g., "I believe in the importance of art."). The questionnaire is a six-item scale related to art from "openness to experience" (based on DeYoung et al., 2007). The answers run on a 7-point Likert scale from "not at all" (1) to "very much" (7), including two reversed items. The mean score is calculated so that a higher score indicates a stronger art savoring. The current study Cronbach's α=0.71.

### New General Self-Efficacy Scale
An eight-item scale (Chen et al., 2001) was used (e.g., "I will be able to achieve most of the goals that I have set for myself."). The answers run on a 5-point Likert scale, "strongly disagree" (1) to "strongly agree" (5). The mean score is calculated so that a higher score represents high self-efficacy. The current study Cronbach's α =0.91.

### The Satisfaction with Life Scale

The Satisfaction with Life Scale (Diener et al., 1985) as a measure of SWB was used. It is a five- item scale running on a 7-point Likert scale, "strongly disagree (1)" to "strongly agree" (7). The mean score is calculated so that a higher score represents a high feeling of SWB, (e.g., "I am satisfied with my life."). The current study Cronbach's $\alpha$ =0.90.

### Personal Growth

Personal Growth was measured by a sub-scale from Ryff and Keyes' (1995) psychological well-being scale, (e.g., "I think it is important to have new experiences that challenge how you think about yourself and the world."). It is a 3-item scale on a 5-point Likert scale from "strongly disagree" (1) to "strongly agree" (5), including one reversed item. The mean score is calculated so that a higher score represents stronger PG. The current study Cronbach's $\alpha$ =0.70.


## Results

The results are presented in three parts. Initially, to account for sample differences of the demographic variables and learner characteristics in the main dependent variable of the study (i.e., personal growth) a moderation analysis was conducted to test the interaction effect of age and sample origin on PG. Subsequently, a multiple two-way analysis of variance (ANOVA) tests was conducted. In the second part, correlations between the main study variables were tested. Lastly, in the third and final part, a hierarchical ordinary least-squares (OLS) regression was conducted. In the first hierarchical step, demographic variables (DV) that were found to have a significant effect on the DV along with the sample were entered as predictors to the OLS model. In the second hierarchical step, the main independent variables (IVs) of the study were entered into the OLS model. Using G*Power (Erdfelder, Faul & Buchner, 1996), a post-hoc power analysis was calculated and it was found that using 351 participants, alpha of .05 and a medium effect size as well as a linear multiple regression analysis, fixed model, R2 deviation from zero design, effects of power that equal to .99, which exceeds the accepted .80 in the literature, could be detected (MacCallum, Browne & Sugawara, 1996).

### *Demographic and learner characteristic effects on personal growth*

To test the effects of age and sample origin along with their interaction term on PG, a moderation analysis was conducted using the PROCESS add-on to SPSS (Model 1; Hayes, 2012). As is suggested in the literature about moderation analysis, all independent variables were centered prior to running the model (Memon et al., 2019). Results of the moderation analysis indicated a main effect for sample origin () showing that the Israeli sample had higher PG than the Anglophonic sample. However, no main effect was found for age (), indicating no difference in PG according to age. Furthermore, the interaction term was likewise not significant (), indicating no sample difference in the effect of age on PG.

Additionally, to account for the effects of gender and sample origin on PG, a two-way ANOVA was conducted. The results indicated a main effect for sample origin (). Using the Bonferroni correction in the post-hoc analysis, it was found that Israeli students (M = 4.27, SD = .71) were higher on PG than Anglophonic students (M = 4.08, SD = .69) (p = .001). No significant difference in PG was found for gender (). However, a significant interaction term for gender X sample origin was found (). The Bonferroni correction in the post-hoc analysis indicated that Israeli males (M = 4.41, SD = .73) were higher in PG than Anglophonic males (M = 3.96, SD = .77) (p=.002). However, no difference in PG was found between Israeli females (M = 4.22, SD = .69) and Anglophonic females (M = 4.12, SD = .66) (p = .26).

To account for the effects of learning disabilities and/or attention disorders along with the sample origin on PG, a two-way ANOVA was conducted. The main effect of sample was described above. No main effect was found for learning disabilities and/or attention disorders ($F_{1,347}$=.68,p=.41, 2=.00) nor was a significant interaction obtained ($F_{1,347}$=2.46,p=.12, 2=.01).

To account for the effects of weekly learning hours and sample origin on PG, a two-way ANOVA was conducted. The main effect of  sample was described above. No main effect was found for weekly learning hours ($F_{4,341}$=.43,p=.79, 2=.01) nor was a significant interaction obtained ($F_{4,341}$=.39,p=.81, 2=.01).

To account for the effects of weekly working hours and sample origin on PG, a two-way ANOVA was conducted. The main effect of sample was described above. No main effect was found for weekly working hours ($F_{4,341}$=1.27,p=.28, 2=.02) nor was a significant interaction obtained ($F_{4,341}$=.75,p=.56, 2=.01).

Lastly, to account for the effects of having children and sample origin on PG, a two-way ANOVA was conducted. The main effect of sample was described above. No main effect was found for having children ($F_{1,347}$=.38,p=.54, 2=.00) nor was a significant interaction obtained ($F_{1,347}$=1.47,p=.23, 2=.00).

### *Correlations between the main study variables*

To make a preliminary test of the effects of savoring art, self-efficacy, and SWB on PG, Pearson correlation coefficients were calculated for all pairwise correlations. The results indicate positive correlations between PG and all three of the main IVs (savoring art, self-efficacy, and SWB). In other words, as savoring art, self-efficacy, and SWB increase so does PG and vice versa. Table 1 presents the descriptive statistics, reliability coefficients, and Pearson coefficients for all variables.

Table 1. Descriptive statistics, reliability coefficients, and Pearson coefficients for all variables.

| Variable | M | SD | 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|
| 1. Personal growth | 4.18 | .70 | .70 | | | |
| 2. Savoring art | 5.11 | 1.06 | .32*** | .71 | | |
| 3. Self-efficacy | 3.74 | .68 | .48*** | .15** | .91 | |
| 4. Subjective well-being | 4.62 | 1.43 | .36*** | -.08 | .51*** | .90 |

Note: *p<.05, **p<.01; ***p<.001; Cronbach ∂ coefficients appear in the diagonal

### *The effects of savoring art, self-efficacy, and SWB on PG*

To test the effects of savoring art, self-efficacy, and SWB on PG, an ordinary least squares (OLS) regression analysis was conducted. The model was conducted in two discrete steps. In the first step, the demographic variables that were found to have a significant effect on the DV in the preliminary analysis were inserted into the model. Specifically, the sample (the Israeli sample vs. the Anglophonic sample) and the gender (male vs. female) were inserted into the model as independent variables. In the second step, to test the effects of the theoretical variables above and beyond the effect of the demographic variables, savoring art, self-efficacy, and SWB were added as subsequent IVs. The results indicated that the initial model (step 1) accounted for 1.9% of the variance in PG ($R^2$=.019) and that the model was significant ($F_{(2,347)}$=3.34, p = .04). Furthermore, the second step accounted for 32% of the variance in PG ($R^2$=.321) and that the model

was significant ($F_{(5,344)}=32.53$, p < .001). Importantly, the difference between step 1 and step 2 of the model was also significant and accounted for approximately 30% of the variance ($R2=.30$, $F3,344=51.03$, p<.001). The model coefficients indicated significant positive effects for savoring art, self-efficacy, and SWB with no significant effects for sample or for gender. Thus, while controlling for all other variables, the more savoring art, self-efficacy, and/or SWB increase, the more PG does as well. For full model coefficients and model estimates, see Table 2.

Table 2. Standardized and unstandardized model coefficients

|  | OLS regression model step 1. | | | | OLS regression model step 2. | | | |
|---|---|---|---|---|---|---|---|---|
| Variable | B (SE) | Beta | p | 95% CI | B (SE) | Beta | p | 95% CI |
| Intercept | 4.10(.16) |  | <.001 | (3.79, 4.40) | 1.51(.25) |  | <.001 | (1.01, 2.01) |
| Sample | .19(.07) | .14 | .01 | (.05, .34) | -.03(.07) | -.02 | .66 | (-.16, .10) |
| Gender | -.01(.08) | -.01 | .92 | (-.18, .16) | -.02(.07) | -.01 | .77 | (-.16, .12) |
| Savoring art |  |  |  |  | .18(.03) | .27 | <.001 | (.12, .24) |
| Self-efficacy |  |  |  |  | .36(.06) | .34 | <.001 | (.25, .47) |
| SWB |  |  |  |  | .10(.03) | .20 | <.001 | (.05, .15) |

## Discussion and conclusions

This study explored the predictive association between learner characteristics and personal characteristics (i.e.., savoring art, self-efficacy and SWB) and students' PG in order to identify factors that may foster PG. Results indicate significant positive effects for savoring art, self-efficacy, and SWB with no significant effects for any learner characteristics on PG. Thus, the more savoring art, self-efficacy, and/or SWB increase, the more PG increases, regardless of students' gender, age, country of origin, learning disabilities, and/or extra-curricular obligations, such as learning vs. working hours and parenting. These results suggest that PG might be addressed as a quality that could be fostered among diverse student populations, by addressing what might seem like a characteristic peripheral to learning, a person's well-being. This requires that whoever is in charge of education, be it the teacher or the parent, address some of the attention to the learner's specific attempts at well-being and/or directing the ones who might aid them in boosting it.

Fostering any approach towards art, whether the need to consume it or the positive attitude towards it, i.e., savoring art, should probably begin at molding stages (Gardner, 1990). The positive effects of art learning on any kind of learning are already well established (Fiske, 1999). Though kids are artistic when they are young, they gradually lose engagement with art as they grow older, and art's advantages like teaching how to view perspectives, problem solve, and use non-verbal expressions, become underdeveloped (Patterson, 2017). This study, however, shows that even cultivating a positive approach towards art may contribute to effective learning by its correlation to PG. Additionally, while self-efficacy is considered an important quality for successful learning and academic achievement (Roick & Ringeisen, 2017; Zajacova et al., 2005), it also directly affects PG, which should be further explored as a possible mediator between self-efficacy and academic success.

Although current literature suggests that students report a tension between extracurricular activities and academic work which affects their academic success (Buckley & Lee, 2021), this study points to a possible contribution of non-academic experiences, like the sense of PG and particularly, savoring art, which may positively affect success. It may also indicate that savoring art has a positive psychological functioning

(Suldo et al., 2006). It has already been established that people seek PG when the right conditions are established (Dunaway et al., 2009). We suggest that fostering one's PG may come through extracurricular actions or even intentions, time not spent learning might not damage the learner but even aid them. Perhaps there is significance to the motivation behind the extracurricular activities which affects its contribution to PG.  These issues should be further studied.

While this study points to possible ways of fostering a student's PG, positively affecting their academic success, it is intentionally directed at a narrow, very specific aspect of effective learning and should be explored among a wider range of characteristics of the effective learner. Results by no means suggest that attention must be given to these or any other psychological characteristics in the attempt to foster an effective learner but that addressing them would be a possible positive additional way of achieving that goal.

Study limitations include a random sampling of students, and results would benefit from a follow-up sampling of students under controlled properties, thereby eliminating possible effects of background variables. Although no differences were found between study participants from different sampled countries, regarding the correlation between savoring art and PG, the correlation might be affected by cultural similarities between Western OECD countries, and the study should be repeated among other cultures.

Moreover, since the study was done during the ongoing social effects of COVID-19, which affected art exhibitions, concerts, and any events including social gatherings, studying of any art-related characteristics was limited. It would be interesting to explore the effects of art consumption and routine conduct involving art and their effect on PG in more "normal" times.

## Statements and Declarations

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# 3. Arts and technology

# AI-based Art Education as Space to Foster a Creative Approach to AITech. A Systematic Integrative Review

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**Abstract**

The current relationship between humans and AITech raises significant issues, but, at the same time, it also has potential for humanization. In order to frame the complexity of this relationship, it is useful to return to the original relationship between human beings and technique. The relationship thanks to which the human being has been able to survive and develop some of its most fundamental features and for which we need to form ourselves early and universally since primary school. One of the promising experiences for training students in critical and conscious management of the relationship between human beings and technology may be the aesthetic one, in particular that of the visual art made through AITech. Specifically, this study concerns a systematic review of literature that outlines a precise framework of 16 selected studies on visual art training experiences made with the AITech in primary school. These aesthetic experiences are particularly central for students not just in terms of aesthetic creativity, but in terms of learning, of developing the cognitive and personal and social skills necessary for a critical-creative relationship with AITech.

**Keywords.** Artificial intelligence technologies, Visual art, Art education, Primary school, Critical-creative thinking, Systematic review

## General description

The current relationship of man with Artificial Intelligence Technologies (AItech) is very complex (Floridi, 2022, 2017; Lee & Qiufan, 2023) and presents a wide range of problems, primarily due to the pervasiveness of the technologies (Benasayag, 2016; Greenfield, 2017; Morozov, 2011; Sadin, 2022, 2019). At the same time, however, this relationship has an enormous potential for humanization (Lee & Qiufan, 2023; Malavasi, 2019; Panciroli & Rivoltella, 2023). To understand this potential, it is useful to take a step back that allows us to return to the original meaning of the close relationship between man and technique, within which it is man who invents himself by inventing his own tools. In fact, it was the technique that, since ancient times has contributed to the survival of the human species and has brought out, at the same time, some of the fundamental traits, such as conscience, culture and sociality (Ferraris, 2021).

The experience that more than others emphasizes the close relationship between man and technique, is the artistic one. In fact, art has marked an essential point in the evolution of the human species. Numerous studies based on the possible origin and the consequent development of human intelligence have underlined the interdependence between the hand (which connotes the technical capacity of man and, consequently, his ability to produce artistic works) and the brain, highlighting this close correlation since the origins of human history (Frank, 1999; Leroi- Gourhan, 1977; McGinn, 2015). Technique and tools have allowed man to adapt and shape reality, thus compensating for his innate biological insufficiency and giving rise to that desire for transcendence that leads man to identify the hidden meanings of reality and to represent them (Chiurazzi, 2021; Panciroli, 2012). Consequently, an early and universal formation of the new generations is necessary in order to recover and develop the potential of humanization contained in the human-technique relationship and to train the critical and creative skills needed to manage current critical issues. An educational experience particularly promising addressed to primary school children could be the artistic one, in particular that of visual art made through the AIech (Biasini Selvaggi & Catricalà, 2020; Mancuso, 2020). It has developed in recent years and it is currently one of the main means to offer a critical interpretation of the present and to imagine and hypothesize future scenarios (Catricalà, 2020).

Through this type of experience, to which it is increasingly necessary to train children immediately because they are very close to this language in which they are immersed in everyday life, it is possible to preserve and develop in a completely innovative way the original humanizing potential of the man-art relationship. Children could approach visual culture and contemporary issues early in an educational space created to implement the formation of a critical, reflective and democratic spirit. Moreover, they would not only be passive consumers of images, but also producers of visual art. In fact, AI technologies, if used with a critical- creative intent, are remarkable tool to approach the world of art and its contents, enhancing the learning experience that involves the emotional and cognitive sphere of children (Klein, 2021).

Within this theoretical framework, this systematic review of literature outlines a precise framework of qualitative studies on visual art training experiences made with the AITech in primary school. This critical analysis and the discussion of the results highlighted strengths and limits of these projects, attempting to interpret them critically in light of current studies on art made with AI and the role of art education in schools.

## Methodology

From March 2023 to July 2023 a systematic review on training experiences of visual art made through AITech in primary school was performed. PICOS was used to define the question's core concepts (Ghirotto, 2020; Methley et al., 2014). In particular, two macroareas were detected: training experiences in general and, specifically, training experiences in primary school. Candidate studies were searched in five online educational and artistic sciences databases including Ebsco, ScienceDirect, Jstor, SpringerLink and the International Bibliography of Art (IBA).

In particular, the *keywords* used were: "Digital art", "primary school", "ai art", "digital technologies", "artificial intelligence", "AI-Generated Art", "critical thinking". A manual search was also performed using the cited references of selected studies to make the review as comprehensive as possible and to compare studies.

To collect relevant studies, specific inclusion criteria were set for certain characteristics concerning the consistency with research objective, the presence of educational experience in visual art realized through the AITech in primary school, open access articles or reports.Exclusion criteria, instead, were about studies which are not relevant to the research objective, activities that do not include the use of AITech or AI and activities which are not carried out in primary school.

An Excel file was used, in which the following information was reported for all studies: databases, combination of keywords used, titles of the articles and authors' names. In the first stage, a title and abstract screening were conducted and a full-text examination 246 articles was conducted, of which 230 were excluded because they did not meet the inclusion criteria. A total of 16 articles reporting on training projects were selected.

The Preferred Reporting Items for Systematic Reviews and meta-analysis (PRISMA) (Maraolo, 2021; Page et al., 2021), chosen for document retrieval and process reporting, is shown in Figure 1. It includes the three phases of the review process: identification, screening and inclusion.

In the process of analyzing, comparing, and interpreting selected studies, each one was examined in detail by comparing them and created one table for each study included in the review (Popay et al., 2006). It was decided to categorize the selected studies based on two categories:

- General categories, such as the title of the study, the place and year of publication, the subjects of the research, the type of study, the type of design and the results obtained;

- Specific categories, such as the training process, the evaluation process of the activity and the evaluation tools used, the disciplinary areas within which the AI activities and AI tools used were developed.

There are 16 projects of training through visual art generated with AItech at the primary school included whose characteristics have been summarized in Table 1.

Table 1. Selected studies

| Title Journal/Book/Conference Proceedings | Year of publication | Disciplinary areas | Sample (No, school grade and age of participants) | Effectiveness of the experiences |
|---|---|---|---|---|
| Media Arts and Assistive Technologies as Empowering Global Communication Tools for Students with Visual Impairments, *Global Media Arts Education* | 2023 | Arts education | Elementary, middle, and high school students and preservice teachers | When students have access to assistive technologies, they can participate in learning tasks that might have been impossible or more difficult without them. Being independent enhances the sense of well-being for students with visual impairments. Assistive technologies and artificial intelligence (AI), used to develop stop-motion animations, teach meaningful subject matter, present disability as a normal part of the human condition and demonstrate the many abilities of students with disabilities. |
| Project-based learning oriented STEAM: the case of micro–bit paper-cutting lamp, *Int J Technol Des Educ.* | 2022 | STEAM | 21 students, 9 males e 12 females | Students improve their problem-solving skills, innovation ability, creativity and the skill of cooperation. Actually, there was a greater desire to share these experiences collectively. |
| Promoting STEAM Education in Primary School through Cooperative Teaching: A Design-Based Research Study, China 2022, *Sustainability* | 2022 | STEAM | 86 students, 11 – 13 years old | This study showed that cooperative teaching can be used to facilitate STEAM education in the primary school context. It was able to promote meaningful discipline integration and address the shortage of STEAM teachers. |
| Children's Digital Art Ability Training System Based on AI-Assisted Learning: A Case Study of Drawing Color Perception, Taiwan, *Front. Psychol.* | 2022 | STEAM | 60 students, 4 classe | The application of the children's digital art ability training system with AI-assisted learning to the art learning activities in K-12 education can help improve students' painting performance, and this system can improve the effectiveness of students' art learning activities, as well as their performance in color recognition. |
| Impact of a virtual environment on the learning effectiveness, motivation, cognitive load, and group self-efficacy of elementary school students in collaborative learning, *Education Tech Research Dev* | 2022 | Arts education | 83 fourth-grade students | The results show that, after collaborative learning in different environments, the self-efficacy of the virtual group of students was significantly higher than that of the real group of students. It also improved interpersonal relationships, confidence and problem solving skills. |
| Social Robots as Creativity Eliciting Agents, *International Journal of Child-Computer Interaction* | 2021 | Arts education | 169 children in the 5–10 years old age group | Effort must go into designing the embodied artificial agents' behaviour, so that they exhibit creativity and scaffold the child's creativity as a peer or a tutor. Embodied AI agents have the potential to use generative modeling techniques to express different forms of creativity through generating media such as drawing, poetry, art styles, patterns, physical body movements, etc. They are also socially emotive and can express the social interactions that accompany creativity such as reflection, inquisitiveness and positive affect. |
| Improving elementary school students' creativity and writing skills through digital comics, *Elementary education online* | 2020 | Arts education | 56 fifth-grade students (aged 11-12 years) | Regarding the area of arts education the studies showed the development of imagination, in terms of expressiveness, originality and richness. The study shows that training experiences of visual art made through AI can increase children's achievement in creativity. |
| Developing Elementary Students' Digital Literacy Through Augmented Reality Creation: Insights From a Longitudinal Analysis of Questionnaires, Interviews, and Projects, *Journal of Educational Computing Research* | 2019 | School computer education | 32 students (aged 11-12 years) | The spiral learning experiences allowed students to develop information management ability by using mind maps. The students became aware of the effectiveness of peer collaboration and raised their willingness to work with others, in order to achieve a common goal. Learning to design AR artifacts in a socially interactive environment made students work with and learn from peers, and consequently stimulate their creativity. |
| Code and tell: assessing young children's learning of computational thinking using peer video interviews with ScratchJr, 2015, *IDC '15: Proceedings of the 14th International Conference on Interaction Design and Children* | 2015 | Programming | 66 second-grade students | Students can showcase a broad range of computational thinking concepts as they demonstrate and talk about their personally meaningful ScratchJr projects for the camera. These experience influenced positively both learning and motivation towards STEM subjects. It also improves digital competence. |
| Understanding the Wonders of Science through Creative Play, Malaysia, *Procedia - Social and Behavioral Sciences* | 2014 | Science | 14 fourth-grade students | The ArtsMedia activity enabled children to learn and play simultaneously. Children, through collaboration, developed critical and creative thinking and linked scientific concepts to their daily experience. The students had demonstrated that they were able to reflect on their experiences and understanding. This trait is evident from their ability to visualize the science concept in an animation rich with colours, movements and interesting storylines. |
| The Effects of Teaching Programming via Scratch on Problem Solving Skills: A Discussion from Learners' Perspective, 2014, *Informatics in Education* | 2014 | Introduction to programming | 9 fifth-grade students (22 female, 27 male) | The study reveals that the students' self-perception about their problem-solving skills was found to be very low. Students have to be supported with different activities and applications that require high-order thinking in order to help them develop problem solving skills. |
| Augmenting play and learning in the primary classroom, *IDC '13: Proceedings of the 12th International Conference on Interaction Design and Children* | 2013 | Educational technology | Students between the ages of 5 and 8 years old | Technologies can be used to create environments that support multiple modes of interaction and different forms of engagement with educational content. By using AR, it is possible to enhance play-based learning without it becoming focused on the technology – rather it augments and guides the learners' own narrative. |
| Fostering Creativity and Innovation through Technology. Engage elementary students' artistic minds and teach STEM subjects at the same time with a digital design program, *Learning & Leading with Technology* | 2012 | STEAM | Students between the ages of 9 and 11 years old | This aesthetic experiences influence positively both learning and motivation towards STEM subjects. A digital design program would give children a safe place in order to introduce children to technology in an innovative way: to experiment, to learn, to create and to innovate. |
| Literacia digital e tecnologias criativas: um estudo qualitativo com crianças dos 10 aos 13 anos a partir do Ateliê de Formas para Animação, *Comunicação e Sociedade* | 2012 | Arts education | 11 students between the ages of 10 and 13 years old | Development of communication skills, technological and digital skills, learning to learn, social and civic skills, spirit of initiative, sensitivity and cultural expression. As regards the area of arts education, the study showed the development of imagination (expressiveness, originality and richness). |
| Children Imitate! Appreciating recycling in participatory design with children, *Proceedings of the 11th Biennial Participatory Design Conference (PDC '10)* | 2010 | Arts education | Two groups of children: one from the third grade (age 9-10 years) and another from the fourth grade (age 10-11 years) | Recycling of adults ideas could be considered as a potential resource for creative collaboration and it can actually increase children's capabilities to participate. |

| The Rosendale Odyssey, Young People, Creativity and New Technologies | 1999 | Arts education | 320 students between the ages of 4 and 7 years old | The children's use of family photos, interviews, oral histories and images of personal significance, as well as parental involvement and strong ties to their own home, helped motivate them and foster an interest in each other. |
|---|---|---|---|---|

Based on recent literature of this topic and the 16 studies that were analyzed in this review, the analysis identified five central themes:

    1. The learning areas where the experiences took place,

    2. The educational approach,

    3. The learning objectives,

    4. The technological tools used to carry out the training,

    5. The limits of these experiences.

In terms of learning areas, these projects mainly support the areas of STEM (Bodén et al., 2013; Hsu et al., 2019; Kalelioğlu & Gülbah, 2014; Portelance & Bers, 2015) and arts education, influencing in a positive way both learning and motivation towards science (Talib et al., 2014), and the development of imagination - in terms of expressiveness, originality and richness (Ali et al., 2021; Istiq'Faroh et al., 2020; Kuure et al., 2010; Pereira et al., 2012; Sickler-Voigt, 2023) - and the quality of their artistic performance - in terms of relevance, feasibility, and colour composition (Chen et al., 2022; Li et al., 2022). The most common educational approach was based on collaboration and group work (Cho et al., 2022; Hsu et al., 2019; Li et al., 2022); in particular, experiences included creative workshops (Kuure et al., 2010; Pereira et al., 2012; Talib et al., 2014; Vaidyanathan, 2012), cooperative learning (Bodén et al., 2013; Chen et al., 2022; Istiq'Faroh et al., 2020; Sickler-Voigt, 2023; Sinker, 1999) and brainstorming (Hsu et al., 2019; Lu et al., 2022). Artistic collaboration has also been carried out with artificial social agents, as in the case of the study conducted by Ali et al. (2021).

According to the studies analyzed in this review, these projects of visual art made through AI were used to develop various skills and abilities, including digital competence (Portelance & Bers, 2015; Hsu et al., 2019) and critical thinking (Sinker, 1999; Talib et al., 2014), but also problem solving skills (Cho et al., 2022; Hsu et al., 2019; Kalelioğlu & Gülbah, 2014; Lu et al., 2022) and teamwork skills (Talib et al., 2014). Children also develop creativity (Ali et al., 2021; Istiq'Faroh et al., 2020; Vaidyanathan, 2012), the ability to communicate and to establish interpersonal and intercultural relationships (Cho et al., 2022; Li et al., 2022; Lu et al., 2022; Sinker, 1999).

The AI tools that were employed in these projects were divided into three categories based on the studies of Ching et al. (2018), as shown in Table 2. The first category is screen-based applications, classified into two large categories:

- Animation/game creation (Ali et al., 2021; Cho et al., 2022; Li et al., 2022; Lu et al., 2021; Portelance & Bers, 2015; Vaidyanathan, 2012),

- Digital and web-based applications (Ali et al., 2021; Chen et al., 2022; Hsu et al., 2019; Istiq'Faroh et al., 2020; Kuure et al., 2010; Pereira et al., 2012; Sickler-Voigt, 2023; Sinker, 1999).

The second involves tangible devices, classified into:

- Augmented reality kits (Bodén et al., 2013; Chen et al., 2022; Hsu et al., 2019),

- Robotics technologies (Ali et al., 2021).

The third relates to hybrid systems (Lu et al., 2021).

Table 2. AI tools

| Screen-based | Tangible | Hybrid |
|---|---|---|
| **Animation/game creation**<br>Google SketchUp<br>Inkscape<br>Seashore<br>ScratchJr (Hello World, Parrot, Aquarium programs and Maze)<br>Paint Editor<br>Tablet<br>Unity<br>Sketch RNN<br>Blocky<br>**Web-based and digital apps**<br>Websites<br>Storyboards<br>Stop Motion<br>VoiceOver<br>JAWS<br>Magnifier Seeing AI<br>Magnifier<br>iMovie<br>Edmodo<br>HyperStudio<br>Adobe Photoshop<br>Kvisoft Flipbook Maker<br>Pix2pix<br>OpenCv<br>Quickdraw | **Augmented reality kits**<br>Save the wide (AR)<br>Aurasma AR platform<br>Smart glasses<br><br>**Robot**<br>Jibo (social robot) | BBC micro: bit |

## Outcomes

Based on what emerged in the articles examined (Sinker, 1999; Vaidyanathan, 2012) and current research on the educational and creative power of visual art generated with AI (Chamberlain et al. 2018; Balzola & Rosa, 2011; Gangadharbatla, 2022; Gilli et al., 2023; Klein, 2021; Mazzone & Ahmed Elgammal, 2019), it emerges that AI-based education is a particularly promising area that allows to develop and promote in the new generations the use of a divergent and creative thinking open to experimentation. It is therefore a thought that lasts well beyond the end of the artistic activities planned and implemented during the formative experiences, that becomes a mental habitus that enhances the originality of the answers given in relation to the daily experiences lived by the subject himself (Bertin, 1974). The art made with AI, in fact, has the power to make the individual consider even beyond the realization of the final product. It is therefore transformed into an ever-changing experience, to which inexhaustible interpretations can be given (Montani, 2004) that go beyond the specific object, becoming a true tool of social criticism (Balzola & Rosa 2011; Neri, 2017).

Within this very promising framework, we can find a limit in the absence of activities in which even the same technological component (art generation with AI) (Bridy, 2016; Zeilinger, 2021) become the object of divergent and creative reflection with respect to the use of technologies in art, to the potential they present, but also to their limits (Campagna, 2018; Catricalà, 2020; Freire & McCarthy, 2014; Klein, 2021). Technologies that generate art with AI open up many issues that have been examined by scientific literature only since the last decade (Cetinic & She, 2021; Hertzmann, 2020; Jucker et al., 2014; McCormack et al., 2019).

Still unexplored in art education is the possibility that children are exposed to the risk that an uncritical use of AItech in art can slow or atrophy the development of those creative skills necessary for the realization of the artistic process (Hsu et al., 2019; Wellner, 2022; Wojciechowski & Korjonen-Kuusipuro, 2021; Zeilinger, 2021) and promoted by it. This possibility is still unexplored for many factors, among which the two most important are: the educational fragility of primary school teachers in the field of "art and image" (Chen et al., 2019; Fahlén, 2020; Kalelioğlu & Gülbahar, 2014; Li et al., 2022; Lin & Chien, 2022; Pereira et al., 2012) and their almost absent education in the field of AI-based art education; lack of adequate resources to implement artistic activity and the little time to teach art in school. More generally, it is also observed – at a micro level – a general devaluating attitude towards the study of art in school (Fahlén, 2020; Salvato et al., 2020), as well as – at a macro level – the same attitude reserved for the artists themselves, whose role within society is – with few exceptions – often diminished (Ewa & Nanjwan, 2019). The lack of adequate inclusion of art in school education – where it is considered a mostly marginal and recreational subject (Ewa & Nanjwan, 2019; Hsu et al., 2019; Pereira et al., 2012) – indeed is a manifestation of the existing hierarchy in education between, on the one hand, math-science and language-anthropology disciplines and, on the other hand, art education and AI-based education at primary school (Chapman, 2017; Kalelioğlu & Gülbahar, 2014; Lindström, 2012; Lu et al., 2022).

The systematic review suggests, therefore, to integrate the AI-based art education in all the disciplines of the school curriculum to create a powerful creative experience and an opportunity both to reflect on the cultural themes covered by each individual discipline and, more specifically, to reflect and discuss the creative relationship between children and AItech (Li et al., 2022; Lu et al., 2022). A constant collective creative practice realized through the AItech of art, combined with a reflective-critical work on the limits and potential of these same AItech, could help to set new aspirations and purposes in view of a creative transformation of the subject and a social development action (Blanco & Cidras, 2022; Katz-Buonincontro, 2015; Kuure et al., 2010; Zimmermann, 2010).

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# Performativity of Listening - On Personal Freedom in Hyperreal Soundscapes

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**Abstract**

An indispensable aspect of citizenship education is the individual's (physical) integrity and his/her maximum possible freedom to act. We live in a digital age, in a hyperreality in which digital representations of reality may be taken as if they were solid reality. How can personal freedom be protected and effectively supported, not only in 'reality' but also in 'hyperreality'? Democracy, in pedagogical contexts' citizenship education, is usually connected to 'free speech', or to the power of the citizenry to voice dissent against despotic ruling. This involves also that different voices are heard. – What is democracy about, when it comes to listening? Is there a freedom of listening (like the freedom of speech), or, can we defy from listening? What is listening in hyperreal spaces? These questions will be discussed in relation to audio tools that provide a natural and vivid experience of listening by heightening emotion. An acoustic world, more specifically, the immersion into hyperreal sounds will be investigated in the analysis of a video horror game.

**Keywords.** Listening, Sounds, Social body, Hyperreality, Democracy

## The Physical Reality of Listening

Maurice Merleau-Ponty (1994) explains hearing as the motoric echo that a sound awakens in a person. Bernhard Waldenfels (2004, p.186ff.) explains auditive experiences as follows: All sounds we hear come from somewhere else; hearing is starting in a distance from the source of the sound; what we say has once been said to us. Human voices, as well as sounds in an anonymous environment may, or may not address us. In closely listening, one filters out what one wants to hear. Listening presupposes sensing oneself, i.e., relating to the own person, in this case, by concentrating on certain sounds. To listen can be inspiring and encouraging, but it can also be laborious and painful.

In hearing, we share our existence with others; the lives of others will be 'blown into' us. - Lisa Folkmarson Käll (2015, p.62f.) writes:

> When we listen closely, the relation between origin and repetition appears to be intimately intertwined while at the same time, origin and repetition are crystalized as separate identities that both carry within themselves a constitutive seed of one another without which they would not exist as separate identities.

Peter Sloterdijk (1998) would explain this by 'being addressed by another person means that we are signified as someone'. He regards listening as the same as becoming a person. His proof is the existential significance of interacting with a baby: By being tackled by the speech of a near person, a proto-subjectivity will develop in the toddler. Therefore, when speaking to a very young child, one usually adjusts one's voice. A parent's voice normally will even have the power of ordering, e.g., when the baby is scared of a dark room. John O'Neill (1986, p. 241, trans. by the author) explains that the timbre and intonation of a voice convey how an individual participates in a larger context:

> In perceiving by hearing, biopsychic and sociopsychic relationships develop, rich in individualizing and trust-building meanings, situation-specific desires, love, hate and fear that a child [we all] projects into the social body.

By hearing we become parto of a community that shares the (acoustic) situation at hand, even if one does not (yet) understand the words. For everybody, succeeding in 'heard' consensus with others usually triggers euphoria. Sound-created consensus is characterized by responsiveness, attunement, harmony, order. There is also conformity with others in what we will filter out by listening. We learn what to regard as noise and to filter out; for example, are we educated to instinctively differentiate sounds in much more details in our homeland than abroad.

However, we can also be threatened by not understanding, when realizing our not-belonging to a particular context. When realizing that we cannot escape from a distressing or painful sound, sound can even turn into distress.

Along with Alfred George Gardiner's ethical dimension of free speech, 'a person's freedom ends where another person's freedom begins', we should learn to closely listen to each other and to prevent acoustic assaults. This dictum is not only affirmed by the early president of the United States Abraham Lincoln, but it is also frequently called upon in pedagogical contexts.

Waldenfels (2004) argues that especially art enables a deeper understanding of what listening is about; and art can strengthen to hear something that one did not hear before. According to John I. Cameron

(2003, p.180) not just people, also a place "carries with it the impetus to act, to respond." And Waldenfels (1994, p.133) identifies such responsivity in ethical terms: "One can judge on actions in terms of whether they meet the needs of a person or thing, whether they make something out of what is given." Listening always happens in a context, a surrounding, in an acoustic environment that can be identified as a soundscape (Southworth 1969, Schafer 1977).

## Soundscapes

A 'soundscape' (Southworth 1969; Schafer 1977) is an auditory scenery, in which a human perceiver is involved.

A soundscape is the acoustic equivalent of landscape: As a geographical concept, landscape indicates an area with characteristic features. Landscape traces back to the Dutch word 'landschap', describing paintings in which the land itself is made the subject of paintings (National Geographic Society, online). Otto Schluter was the first to define geography as landscape science (see Dickinson 1969). There are natural and cultural landscapes. The first of which consists of landforms such as plains, mountains, lakes and natural vegetation. Cultural landscapes are structures of social, civilizational and economic significance that are made up by people. Landscape as a philosophical-cultural-scientific concept signifies a culturally or artificially shaped scenery and singular aesthetic whole. A soundscape in geographical terms is constituted by found (natural) sounds with clearly identifiable sources. The acoustic environment that corresponds to landscape as a philosophical-cultural-scientific concept consists of edited expression, e.g. (artificial) audio recordings, performances, or compositions.

There are also 'hyperreal' landscapes and soundscapes: According to Jean Baudrillard ([1981] 1994), hyperreality is a technological context, in which imaginaries make us believe that they are real. In hyperreality, or in a hyperreal landscape, physical reality is blended with, or replaced by its representations. In augmented, mixed and virtual reality, the human is subjected to designed, immersive, technology-based experiences.

The overall hypothesis in this paper is that 'landscapes', 'soundscapes' and 'hyperreality' are concepts of esthetic education and part of place-and-body-responsive pedagogy. This hypothesis will be developed in relation to the hyperreal soundscape of a video game. In the following, a short introduction, first theoretically, then empirically, will be given into an acoustic world, more specifically, into the immersion into sounds of gaming that provide a natural and vivid experience of listening by heightening emotion in a hyperreal way.

## Listening in hyperreal spaces

In hyperreal spaces, acoustic markers are triggered by artificial simulation and a potentially endless reproduction of an expression that cannot be referred to its origin. Messages are deprived from authorship, from personal intentions, integrity and responsibility. Activity proceeds within what is generally regarded as real, in close and not easily distinguishable connection with fiction. The sounds may indicate reality, or fiction, or something in between. Feelings, e.g., contentment, pleasure, angst, etc., do not derive foremost from the interaction with the physical world, but are found through secondary sources like representations, imitations, simulations. This is also true for the impressions, inspirations, feelings that one gets by listening in hyperreal spaces. Assumingly, also the above-mentioned ethical dimension of

free speech, namely the respect of another person's freedom by listening closely, is easily messed up in the hyperreal blurring of the difference of reality and its simulation.

Regarding democracy and freedom, in the technologically advanced societies of today, to disseminate information and to discuss ideas, as well as to spread them virally happens in remarkable speed. At the same time, Diana C. Mutz (2006) and others describe 'echo chambers' in social media. Meant are enclosed spaces, in which people tend to surround themselves with like-minded others by reinforcing each other in their own position. These echo chambers may be examples for such 'hyperreal blurring of the difference of reality and its simulation'. Hannah Arendt (2007, p.479) shows that, in such a situation, human wickedness can be normalized: "The more superficial one is, the more likely he will be to yield to evil." She takes even a step further in stating: Machinery "[...] makes functionaries and mere cogs out of men." (Arendt [1963] 1994, p.289) Instead she stresses that the most fundamental social action is placing a noticeable thread into an existing fabric that one did not make oneself (cp. Arendt 1961, p.25).

How can personal freedom be protected and effectively supported in a hyperreal context? How can democracy be preserved in terms of a social identity constituted by hyperreal listening?

There are many forms of online-communication, e.g., e-learning, social media, podcasting, blogging etc., video games, and the diverse hardware or software interfaces. In video games under the conditions of adaptive game sounds, music tracks are not only utilized to build an atmosphere and to keep the interest of a player, but also to absorb him/her into a hyperreal world. To succeed in this, is a major selling factor.

## Analysis of the horror video game 'Perception'

In this presentation, the video horror game 'Perception' will be interpreted as a hyperreal 'soundscape', in which the listening of sounds in a hyperreal context is not reduced simply to our ears, but will give a user the overall sensation of physical presence. It will demand 'place-responsive practice' (Cameron 2003 and Waldenfels 1994) from the player.

The horror video game 'Perception' is an example for adaptive game sounds. The sounds move with the action and the emotional state of the protagonist. For my the interpretation, the silent night mode was chosen (Perception - Silent Night Mode - YouTube, from 2:00 on). The story of the game unfolds as follow: *a person approaches the silhouette of a dark house and enters it by the veranda. One hears footsteps and blowing, breaking, squeaking. A flashlight illuminates the surrounding in a fluttering way. Suddenly, the light falls on a corpse hunched in a bed. One hears a fearful woman's scream and anxious breathing. Approaching flapping curtains at an open window. Accompanied by lamentations, one turns to a closed door that is opened with a creak. With another deeply surprised scream and accompanied by singing birds, one enters a cemetery. Now, unspecific laments constitute the soundscape, dramatized by bass and cello sounds. A white, shadowy, mourning figure appears behind a tombstone and dissolves. Another figure appears. The terrifying sounds increase. The only way that can be taken leads back into the house of horror...*

We depart from the assumption that this storyline is about creating a hyperreal world. This is to say, the analysis of 'Perception' may show that the player is seduced to get involved into the mere heuristics of seeing and listening, while, assumingly, reflection will fade away. 'The human body [in its responsivity] will replace all symbolic media and will become the sole medium' (Waldenfels ibid., p.467). – How does this take place? For the first, sounds and echolocation allow for the player's self-assurance, orientation. Then,

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the sounds are guiding his/her action, enabling him/her agency. From our theoretical background, given is only a pseudo-agency in a faked reality. This takes place by means of the persuasiveness of sounds without appealing to reason. When Baudrilliard's concept of hyperreality is taken into account, it happens even by paralyzing the ability of the player to draw the line between reality and nonreality, subjecting him/her to a hyperreality. In the case of this horror game, it is even a dystopian hyperreality.

In a reality where the lines between actuality and simulation are fading, it is crucial to recognize the ways in which its artificiality is constructed. By understanding the role simulation plays in shaping our perception of the world, we can regain control over our agency (Kraus, 2022). What is democracy about, when it comes to listening?  Is there a freedom of listening (like the freedom of speech), or, can we defy from listening? What is listening in hyperreal spaces? Hopefully,  in a learning setting, the following questions can give us some idea about such an answer could look like:

- How can 'drawing the line between hyperreal and real effects' help to illuminate 'how machinery makes functionaries and mere cogs out of men'? In the context of a virtual game, this will practically proceed in an impersonal way.

- How can interpersonal attachment protect the integrity and maximum possible freedom of an individual also in hyperreality? The difference between democracy and freedom in both worlds could be worked out in terms of social change that is taking place in reality as well as in hyperreality. In reality, the most fundamental social action is to place a noticeable thread into an existing fabric that one did not make oneself (see Arendt above). In hyperreality, a person will shape up as a virtual subject in an already constituted, but not controllable world (2nd life). It involves high potential of confusion, when one is about 'to judge on actions in terms of whether they make something out of what is given' in the hyper spaces? – One can read many urgent pleads for turning back to reality.

To reflect on these questions should be an integral part of contemporary education. Phenomenology of perception, simulation theory, and sound studies could be the means for further exploration.

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# Articulations

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**Abstract**

For one year, two stop motion shorts were made in Portugal, with twenty-five students and a pair of teachers, in two different classes. "Articulations" was the name of this project, carried out with eleven- to fifteen-year-old students. Together we made videos of our classes to document our animation cinema production. With this proposal we aimed to challenge traditional school curricular procedures by integrating a collaborative practice into visual art classes. The main purpose was to deviate from the positive and predictable rhetorical effects of art learning. (Gatzambide-Fernandez, 2013) In this article we want to share the tree major topics of the research presented on ECER's video: Artistic Doings, Participation and Memories. We create an experience that fosters collective and experimental artistic learnings. Video allowed us to capture our lives and memories in class, and the data saved was the main focus for the reflections. As researcher I question the way we kept these times recorded in our bodies, confronting our memories with video data of the "doings" in the classroom. 'Artistic doings' as a concept is something that cannot be characterized in a single perspective in the matter of art education. The selection of images represented only some of the processes between us that year, cannot measure our participation, give us all an insight of the involvement of the project, and brought a vibe of what happened, they were our shadows and our residual visual rests.

**Keywords.** Artistic Doings; Art Education; Collaborative Practices; Participation; Animation Short-Film.

## General Description

The video presentation brought to ECER is a small documentary compilation of a one-year project "Articulations". It is a metaphorical representation of a five-year experience as a teacher and researcher in producing animation short films with my Visual Education classes. This collaborative experience in classrooms is part of my Ph.D. in Art Education at the Faculty of Fine Arts at the University of Porto. This practice has been involving middle school students from the 7th to the 9th grade in the cities of Braga and Gaia in Northern Portugal, from 2018 until today. Our team works along with teachers of Visual Education, their classes and school superiors.

Our aim this year was to understand the impact of collaborative art practices on learning beyond the institutional boundaries of the curricula. The project sought to challenge the current approach to arts education in Portugal. The developed practices reconfigure school curricula for the duration of one year as a researcher. Instead of keep doing Visual Education classes based on short-term exercises or small projects that test pupil skills and technical abilities in visual arts, I intended to deal with the curricula collaboratively, and, together with the professors, we agreed on doing it through a short-film animation production with students. My art high school teachers did the same with my class back in 2010[1]. I brought this experience to be reactivated from my memory to my Phd research in art education. I wanted to search for the becoming's of this kind of projects with different students, and to put them in a pedagogical perspective.

These were some of the preconditions of the project, in the words of the different teachers involved, and some of my reflections. They were reported in the video as stated by them and registered on my research diaries (2022-2023), I used them with their consent to depict, here and in the video, some of their goals and worries on the project at that moment. On art education institutional and pedagogic memory and school heritage:

> "We have been working in our schools on what remains of the teaching practices of our predecessors in artistic education." – Teacher A.

> "The pedagogical approaches made from the state curricula often focuses on individualistic and technical learning and the development personal skills in the majority of the school time." - Teacher B.

> "There have been recent opened guidelines[2] made by the last government, but the transformation has been difficult and not all of the schools received this information with this same sense of interpretation." - Teacher C.

As Cat Martins (2011) argues, the sedimented approach is historically linked in Portugal to the need to use art practices in school to government of the bodies and the people as an individual self in society. I set this project with deep questioning about democracy and participation in the classrooms, and we aim to restore some knowledge that comes from the collaborative practices with a common goal, for both students and teachers (Carmo, 2022). With our resistant approach, we set out to practice with the awareness that not everyone would get involved in the same way. We could no longer think of participation in a dichotomous and binary way. On participatory practices and learning in art classroom:

"Learning, no longer means that we all do the same, nor participate means that we are being active in an activity." - Teacher A.

"We wanted to do something together. But we departed with ourselves questioning about what this "we" meant, and what forces for this production come more from students or more from teachers." - Teacher B.

## Theoretical framework

As Baldacchino stated, learning "(...) cannot entertain an end-objective (...)" or "(...) entertain an accumulation of knowledge achieved through a process that eliminates the unknowns." (Baldacchino, 2019, p.43). The intention was to experience gestures of artistic education that aim to be collective (Bishop, 2012, p-93-99) and resist instrumentalized practices (Baldacchino,2019, p.x), segmentary and sedimented subjects as well as the exclusive individualism approach to the student's technical and personal skills which is currently present in the process of teaching arts in Portugal in mass formal education (Martins, 2011, p.235-237). In contrast, we aimed to activate practices "that understand the impact of learning, beyond the institution" as Jake Watts (2018) proposes. As part of my research, this video reflection mobilizes the challenges of constituting a participatory practice in schools beyond the interactive and the active / passive binary of participation (Bishop, 2012, p.93); based on my diary registrations and reflections on that matter (Carmo, 2022). Through these moving image records, we discuss the tensions and conflicts that such collaborative practice poses to an elitist and technocratic way of teaching, doing, and thinking about arts and arts education practices. We have been bringing to the reflection of this research the diversity of doing and thinking the artistic, in a transdisciplinary way, and thinking about the importance of relativizing what it is to be artistic, and what is artistic doing to young students. With this practice research project we are questioning: the ephemerality or the precarious, as Hirschhorn puts it (Foster, 2015), on pupils artistic doings; the invisible (Jagodzinski, 2013, p.8) learnings that artistic experiences could carry out ; the sensitivities that cannot be measured by a scale or an evaluation grid (Ranciére, 2010); the impact and the differentiation of long-term projects in the pupils' life (Mörsch, 2009); dialing with the unpredictable happenings (Watts, 2014) the risks and error within a school system over-bureaucratic, and over-planned by the institutionalization of the art education (Baldacchino, 2019, p.13).

## Methodology

To make a school year project out of "Articulations", a variety of methods were employed. We embraced collaborative and collective approaches (Helguera, 2011) to artistic education, as the school was the stage of a participatory art project, as advocated by Bishop (2012, p.93-99). Because of my researcher position in I2ADS, on the Fine Arts Faculty of University of Porto, we manage a collaboration with two visual education teachers in Canelas, Gaia. This school offered us an open space to research, and to me as a stranger teacher, a chance to act and doing something together with them/ the teachers and students/ the school body. They considered me in a position of a artist-researcher-teacher in residence and I joined them in two different classes. We agreed together how to deal with the curricular matters inside the animation production along the school year. Students were actively involved in the creation of the animation short films from the beginning and created the argument together with different collective drawing cartography methodologies thought by us. They contributed with their ideas, perspectives, materials, combining artistic possibilities to the project. Through this collaboration, students were able to participate and engage in a process of free exploration of technical and material procedures, 'learning by doing' method (Fitzsimons, 2014; Aguado, 2018). As teachers, we applied a 'differential pedagogic' approach to our classes. The students learned with each other not only with the teachers involved, they have single or collective tasks depending on what's missing and, we as teachers incite them to look for solutions not yet known. They were creating together and depending on each other's work, ideas and research (Hackathorn et all, 2011; Murphy, 2017).

Art-Based Research and Artography is here understood and used critically (Jagodzinski et all, 2013; Irwin, 2013; Gregory et all, 2021). We use these research methodologies combined as guidelines, contextualized on what could be possible to do in-between school curricular proceedings and our specific artistic project. We involved the use of visual arts and other artistic forms to produce artistic doings, to document and analyze the process and outcomes of the project. Video was the principal medium of data analyses (Onsès et al., 2017), and it was captured by students and teachers involved, to help and contribute with this research project from their perspective. A summary of this data was the key element of the video presentation in ECER, and the narrator was artificial intelligence voice generated, to represent us all from a neutral position. Along the year the students made a reflection on their practice through conversations with each other while confronting video recordings of the time in class. I kept some special thoughts with myself. Like when a student realized that she didn't know how to sew and that her grandmother made her think she knew. Or at the audio recording section when a student realized that his voice would be eternalized and extend his duration on the animation film they were producing.

As a participatory art practice facilitator, teacher, artist and researcher, I spent several hours a week in the school of Canelas, working closely with the students and the two teachers, to foster critically reflective discussions and practices. Another method employed in the "Articulations" project was the use of arts-based collaboration pedagogy. This involved engaging students and teachers from the community in creating socially engaged art pedagogies (Helguera, 2011) that went beyond the boundaries of the class. Collaboratively, we made stop motion and video workshops for students and teachers, involved other members of the community to participate on the reflections, and on the production of the short films. Furthermore, interdisciplinary collaboration between art teachers that came from different backgrounds were a major contribution to the project. We also invited some History and Portuguese teachers to join us on the process. The project aimed to challenge the power dynamics inherent in traditional education systems by creating spaces for critical inquiry and creativity inside and outside the classroom.
From the research perspective, we realized that we set the bar high for the teacher's involvement to the project, but as the time passed, we had an organic flow of participation, not everyone would get involved in the same way and with the same intensity during the whole school year. Even me! We understand that we had to balance a lot of the responsibilities of getting things done as teachers. We also had to restructure some of the tasks to manage the fact that some students became tired of longer tasks they were attributed.

## Outcomes

This project was motivated by the belief that learning should not be confined to a predetermined end-objective or focused solely on accumulating known information. The integration of animation cinema into the school curriculum provided an opportunity for students to engage in artistic practices that go beyond the institution and traditional educational boundaries. Yet, we as teachers, realized that we need to be very careful to follow a resistant approach every step of the way. We fail on the consistency of that mission, we realized that as people we tend to integrate behaviors that are already thought or done by someone else, by commodity of the repetition, that lead to a conservation of pedagogies that are outdated. But we kept the task to try to resist to our own routines, resisting to methodologies that are also predictable inside and outside the school. We had realized, as Gilles Deleuze thought about, that we have something resistant in the exercise of repetition. (Deleuze, 2011) Only with the practice of the same task we know our structures and our possibilities to make a difference. In this "exercise of freedom" that no longer eludes us (Sardo, 2017) would there be time to listen to everyone? This research tried to bring the question on how we listen to our students if not artistically? How they have been able to participate on

the projects that we started for them, and how we let them take charge?

This research project was driven by a desire to explore the potential of social practice in art education classes and to understand how arts-based research can foster collective endeavors that foreground social interaction as an aesthetic form. (Sanders-Bustle, 2020) Video is used as a documentation process, as a learning tool, and as the main goal with the production of animated short-films for one year. The different layers of the use of this medium balance the way everyone was included in the process and produced visual and audio collective memories for students to reflect and compare with each other. The realization of films, the filmmaking, was in the background, we were interested in opening gaps, spaces for invisible learning to take place.

The whole school year project made them think and deal with learning the artistic as a form of living it, and the collaborative experience in the classroom made us all do different tasks. We extend time, extend durations like Didi-Huberman poeticizes[3]. At first, the students asked suspiciously about the duration of the project, and at the beginning of the process, the engage with the students was difficult. They only started to realize they were really in charge and not the teachers, when something was missing, and the teachers did not know where the work had been saved, or when some students delayed their tasks and made others wait for them. The collective responsibility (Caruana et all, 2021) was the key element of this participation exercise as the students started to be aware of what they have to do every class, and who depended on their work.

## Conclusions the rests: Memories and the narratives of the selfs and doings

Time could be felt, the trace of our practice was what we did, what was lost, the rubbish, what was left in the room, or the scenarios that were left unfinished. Even with a lot of video data it was hard to trace some of the student thoughts, reflections, and opinions. Between the doings, the learnings and the action in classroom sometimes I only had time to write a memory on that class after fifteen days. Their individual and collective memories, their stories penetrated the film, and would remain submerged for posterity. After doing, forgetting about what was done would come, as Deleuze guides us, we would have to go beyond this in-between, and enhance our memories, and learning through the complexity of other artistic doings.

Just like in a tomb, as Hans Belting put it, the catastrophe of the project's death was being controlled by its means of representation. Would this become an artistic-educational event as proposed by Deleuze?

Video Presentation Link: https://drive.google.com/file/d/1hZorOJYb1ZxX-WfP1t6xELxuFT6IvIO8/view?usp=drive_link

## Notes

1. Although we were older students, I started wondering about the collective potential effect of the project in animation production. At the end we felt that the collaborative practice was the main deal. The short-film production was a medium for us to experience something other than an individualistic schoolwork, and to be aware of the stop motion cinema production doings. *Students of 12th grade under guidance of Sandra Santos (2011) O Belo Adormecido (Stop Motion Short-Film) CRL Produtions*. (https://www.agencia.curtas.pt/filmes/show/274)

2. Decree-Law no 55/2018 of 6 of July. Republic Diary No. 129/2018, Series 1 of 2018-07-06. This decree gave schools more autonomy on the management of the school program and curriculum. They also define the

"Student Profile for Compulsory Education", a set of skills that pupils need to achieve until the end of the 12th grade.

3. AA School of Arquitecture. (2015) Georges Didi-Huberman - Constructing Duration [Vídeo] . Youtube. https://www.youtube.com/watch?v=IZrhYrZAqmc&ab_channel=AASchoolofArchitecture : Conference from Georges Didi-Huberman. 2006-01-20. Arquitectural Association School of Arquitecture from London.

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