

Expanding Children's Conceptual Field Through Dance and Visual Arts

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Abstract

The paper describes the results of research based on the integration of a model of teaching in and through the arts in primary school. The research was carried out as part of the project which used dance and visual arts to engage with the theme of the factory in a class of third graders. The methodological instrument of visual tests was used to assess the changes in the drawings of the participating students. While analysing the visual tests, feedback was obtained from each student within the framework of a semi-structured interview. It was found that the integration of art in the learning process elicited positive reactions from the students, who broadened their conceptual field and were keen to work in this way in the future. The results of the survey are a stimulus for projects aiming at a holistic integration of the arts in primary school.

Introduction

Art is one of man's ancient symbolic languages; it serves to communicate and make sense of existence and is part of man's entry into the world (Kroflič, 2017; Kroflič, Rutar & Borota, 2022). Art occupies a key role in the socialisation of the primary school student who normally spends a large part of the day in the shelter of a school institution. In relation to learning and teaching, the arts are also an effective means of unlocking learning and creating a dynamic and inclusive learning environment (Eisner, 2004, in Nielsen et al., 2020). Modern schools strive to create dynamic curricula with the aim of empowering students with twenty-first century skills. Teaching in and through the arts helps students to acquire these competences (Corbisiero-Drakos et al., 2021; Smrtnik Vitulić et al., 2022). Research has shown that the arts also contribute to emotional flexibility and the development of imagination and creative and critical thinking (Mundet-Bolos et al., 2017), as well as contributing to an inclusive society (Anttila, 2016). The arts provide multiple avenues through which students can showcase their knowledge and emotions (Donovan & Pascale, 2012). Some artistic languages are acquired far before words and therefore enable people to express their feelings more easily and clearly. The language of dance art is creative movement, storytelling with the body as the primary means of expression (Kroflič, 1999; Rupnik & Geršak, 2022). When integrating dance art into the curriculum, we seek to emphasise the creative nature of dance, inventing, creating and connecting movements, creating dance movement (Geršak, 2016). It is therefore not unusual for dancers to be less proficient in verbal language, as they are more comfortable expressing themselves with their bodies. Similarly, an artist does not express him/herself with words, but with his/her works; the artist's writing in the language of art can be perceived as expression (Butina, 1997). Non-verbal languages make up the bulk of the messages we consciously or unconsciously receive and transmit in our everyday lives (Kroflič, 1999).

In addition to the power of expression, the arts have a positive impact on children's emotional and social development, offering them an opportunity to communicate, to look at and see each other, and to show respect for their similarities and differences (Griss, 1998; Koff, 2021). Teachers who have incorporated arts activities into their work report that integrative teaching has positively changed their classroom environment and allowed students who found it difficult to demonstrate their knowledge in core subjects to express themselves (Diaz et al., 2006; Geršak, 2016). Svendler Nielsen and Anttila (2019) believes that the integration of dance in schools can improve the quality of life and the effectiveness of learning.

Some teachers also see the involvement of professional artists as a positive aspect of the arts (Podobnik & Borota, 2022), enriching the learning process while relieving the teacher in areas where s/he does not feel competent (Corbisiero-Drakos et al., 2021).

The present research on the integration of dance and visual arts in the classroom, which was carried out as part of the project *Movement and Its Trace* at the Faculty of Education, University of Ljubljana, aimed to present the possibilities offered by the arts in the school context, and to link them with and integrate them into the learning process. We developed four exploratory workshops for 3rd graders, incorporating a wide range of artistic disciplines as teaching methods and learning objectives, linked with other curricular areas while exploring environmental topics (different ways of understanding the concept of *factory*). The activities promoted active creative thinking, cross-curricular integration and collaborative forms of work. The participating students were encouraged to gain insight into the cultural institution while creating and learning, to interact with the artists, and to make progress in the cognitive, psychomotor and socio-emotional domains.

Regarding methodology a qualitative research approach with a purposive sample was used in this research, combining a variety of measuring instruments. In this article, we will mainly present the analysis and interpretation of the data obtained from the visual tests, supported by semi-structured interviews to define changes in the conceptual field of the pupils involved. We will guide the reader through the process of analysing visual data, which can be applicable on future arts-based research in education.

Aims and Research Questions

The following objectives were set:

- to integrate visual arts and dance into the learning process.
- to see how students respond to the integration of dance and visual arts in the learning process.
- to design an instrument to assess how students visualise and describe the concepts of factory, lines, space and freedom before and after the integrated teaching.

The following research questions were formed:

- What are the different phases of the designed project *Movement and Its Trace*, which is based on the model of teaching through artistic experience?
- How do students respond to the model of teaching through artistic experience?
- Has the conceptual field of the participants changed after the project *Movement and Its Trace*?

Methodology

A qualitative research approach and a non-experimental descriptive research method were used. The sample was purposive and comprised 30 third graders aged 7–8 years from one

class of an urban school. One student was absent for the pre-test and one for the post-test; 28 pre-tests and 28 post-tests were relevant for each concept.

Measuring Instruments

Visual tests (pre-test and post-test) were used to assess how the students imagined or visualised the concepts of factory, line, space and freedom before and after the project, and to determine whether their conceptual field had changed after the project. The students had four minutes to visualise each concept and draw with a graphite pencil without the teacher's help. The tests were designed to enable the children to express themselves in an unencumbered way through drawing, thus understanding the format as a space in which they find themselves, define themselves in relation to the world, and express themselves (Hall, 2020).

After the post-test, semi-structured interviews were conducted in which the students explained their drawings. While conducting the interviews, the principle of sensitivity was followed with regard to how and what the students were asked. Every effort was made to ensure that the interview was as natural and appropriate for the children as possible, because if children feel comfortable during an interview they are more likely to give feedback in a relaxed and easy way (Hall, 2020).

Each student drew four different concepts. The total sample of drawings comprised 224 tests, with 112 pre-tests and 112 post-tests. Semi-structured interviews were conducted with all 30 students.

Data Collection Procedure

Four workshops were designed, involving different forms and methods of work linked to many curricular areas. Since a variety of teaching methods is one of the key conditions for quality teaching (Mayer, 2005), several different methods were used. Among them was creative movement, which Donovan and Pascale (2012) mention as a means of spontaneously learning to interpret and deliver non-verbal messages, and through which, according to Kroflič (1999, p. 138), children meet “their needs for movement, personal space, touch, emotional warmth and security, for companionship and acceptance.” Group relations and the capacity for empathy were also strengthened through a storytelling.

The students first visited the exhibition *New Age is Coming! Industry – Labour – Capital*, as part of the *How Do Factories Smell?* programme at the Ljubljana City Museum. A guided interactive tour of the exhibition was followed by an experiential workshop (Geršak et al., 2018), and then by four research workshops at the students' primary school over four consecutive weeks. The workshops were designed to link several subject areas, and the use of

the creative movement method was a feature of the whole process. The interdisciplinary workshops followed a funnel approach, from very concrete concepts to abstract concepts. The students made connections between concepts and domains, which helped to facilitate the pathways through which they acquired and produced new knowledge (Bautista et al., 2016). Each workshop increased the level of thought processes and the intensity of the construction of new knowledge. To ensure a quality learning process, the workshops were piloted with preservice teachers at the Faculty of Education before implementation. The feedback obtained from the preservice teachers was used to improve the teaching preparation. In Workshop 1, the students were introduced to factories and, in terms of art, to the line. They made geometric factories on the gym floor, created constructivist poems, and moved in a controlled way. In Workshop 2, they put the line in a three-dimensional space; the factories became imaginary (figure 1). The movement eventually became free; the students no longer followed the lines but developed individual and group ways of moving (figure 2). In Workshop 3, the line dissipated into light, with the students creating their own stories on light tables, and in Workshop 4, they used transparent and translucent materials to create invisible interpersonal connections on a shared canvas.

Table 1*Art and dance content in the research workshops*

Workshop 1	Line, two-dimensional space, controlled movement
Workshop 2	Line in three-dimensional space, installation and the role of light
Workshop 3	Free movement, physical responses to sound stimuli, creativity
Workshop 4	Interpersonal relationships and their influence on movement, line/connection formation

(Geršak et al., 2018, p. 24).

Table 2*Developing the concept of the factory in the research workshops*

Workshop 1	A space to produce similar products that are not identical
Workshop 2	A space for the production of entities from which a new whole can emerge
Workshop 3	A space where entities become independent and generate ideas
Workshop 4	All that surrounds us, interpersonal bonds, freedom factory

(Geršak et al., 2018, p. 24).

The research workshops were characterised by a gradation of content according to the level of thought processes: we moved from more tangible to abstract concepts; from simple to difficult tasks; from general facts to individual perspectives. In the first workshop, the students were introduced to concepts, in the next workshop they consolidated and built on them, in the third workshop they added new concepts while consolidating the familiar ones, and in the last workshop they connected and contextualised them.

Grading the Learning Objectives in Environmental Studies

In workshop 1, students were learning about the traditional concept of the factory as a place where new products are produced in large quantities. In workshop 2, students were expanding their knowledge about mass produced products, focusing on their negative environmental impact, for example pollution.

Workshop 3 was dedicated to learning about the waste, produced in mass production and in everyday life. Students were also researching the relations between mass production and community while exploring the roles of different community members as active citizens. In workshop 4 students were realising that nowadays some waste can be reused and that the concept of factory is changing through time. They were exploring new forms of factories in modern society, and they shared their knowledge with their community – their classmates. (Geršak et al., 2018).



Figure 1. Exploring bounded/unbounded 3D space. (Gornjec, 2018)

Figure 2. Connecting in dance-character stories. (Gornjec, 2018)

Socio-emotional objectives were also focused on, as the workshops indirectly highlighted “certain social problems: loneliness, alienation, excessive individualism, etc.” These topics were first identified by the students, who identified them as problems and then looked for

different ways to solve them. “The means of establishing relationships between individuals became creative movement, which provides the primary means of expressing emotions and communication – touch” (Geršak et al., 2018, p. 32). A lot of collaborative and group work was included in the workshops, because art education offers opportunities for students to learn to work together, which is sometimes lacking in core school subjects (Corbisiero-Drakos et al., 2021). In designing the workshops, we aimed at a holistic approach and tried to provide students with an aesthetic experience with opportunities for their own creativity. Consequently, artistic products were created: dance stories, constructivist songs, dance concoctions, movement sculptures, etc., with the students as listeners, performers and creators.

After the workshops, the students prepared for their final performance at the museum through performance rehearsals.

A dancer, a choreographer and a musician were involved, and students of early childhood education also took an active part. As it was a site-specific concept, a lot of time was spent on furnishing the space and creating the visual materials. The final performance was called the Idea Factory, which comes from the multiple meanings of the word factory. In the process of creating a holistic aesthetic experience, the basic skeleton of the performance was devised (figures 3–6). This allowed for adaptations, so the frame story remained the same in each rehearsal, but its dance interpretation gradually changed. The project followed a Midway model and was based on processuality, without eliminating products. Stages of creation, performance and evaluation were included, with the children progressing through personal development and the acquisition of dance technique, as well as through a fusion of the two (Smith-Autard, 2002).



Figure 3. The opening part of the performance; a field of cotton seeds. (Gornjec, 2018)

Figure 4. Cotton flowers flutter in the wind. (Oblak, 2018)

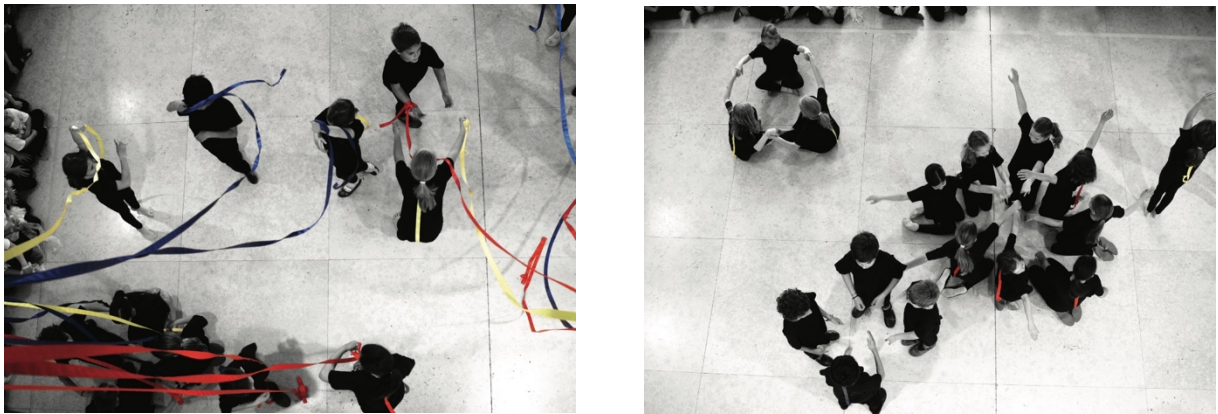


Figure 5. Creating imaginative factory processes. (Oblak, 2018)
Figure 6. Connecting into new units of friendship. (Gornjec, 2018)

The realisation of the project depended on the collaboration of many artists and institutions. The participants forged a network of relationships that contributed to the quality of the dance-character performance, which was based on the story that the students had developed in the workshops. The performance received overwhelmingly positive feedback, and the children, parents and audience members were all happy with the whole process. In addition, the dance critic Rupnik (2017) gave the performance an encouraging review. Drawing on the dance educator Griss (1998), the students, whose primary modes of expression were encouraged, impressed us with their abilities of interpretation, expressiveness and creativity.

Data Analysis Methods

The data were obtained through visual test analysis and were collected over a period of two and a half months. A pre-test was conducted prior to the start of the pedagogical process (after the visit to the museum exhibition) and a post-test was conducted in the week after the performance, followed by semi-structured interviews with the students involved in the project. The anonymity of the research participants was guaranteed. The data were analysed quantitatively and qualitatively. The visual tests were grouped according to recurring features and a comparison was made between the pre-tests and post-tests at the level of the individual student and the group according to these features. The number of different themes drawn was compared between the subjects, with a higher number of different themes indicating a broader conceptual field. Attention was also devoted to the formative aspect of the drawings.

The aim of the testing was to compare the motifs drawn by the students in the pre-test and post-test. The motifs appearing in each were extracted and then sorted into categories. It was determined which categories appeared most frequently in the pre-test and post-test, and the

comparison was plotted on a graph. The number of different motifs depicted by each student in the pre-test and post-test is also shown.

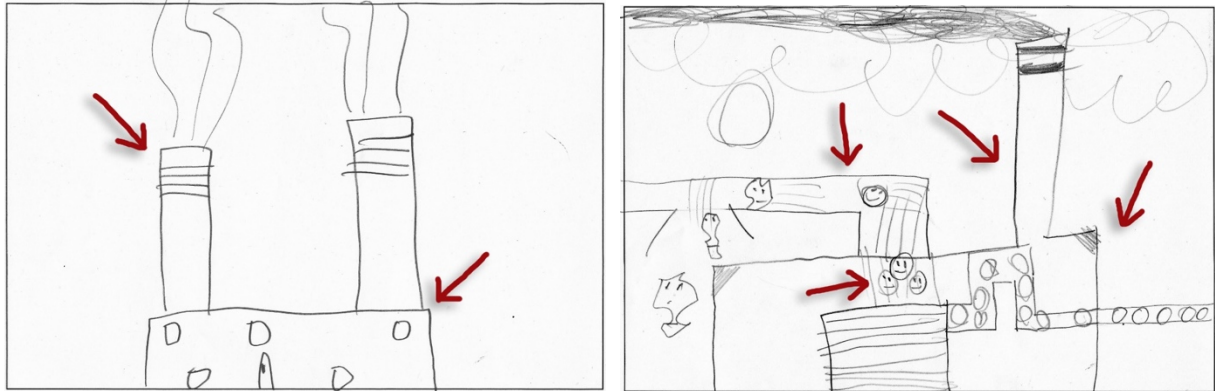


Figure 7. Pre-test of Student A; visualisation of the concept of a factory with subsequently labelled motifs.

Figure 8. Post-test of Student A; visualisation of the concept of a factory with subsequently labelled motifs.

To facilitate interpretation, one of the visual tests has been chosen in which an increase in the number of different motifs can be seen very clearly. In the pre-test, the student drew a factory with two chimneys, thus satisfying two (2) categories: building and chimney. In the drawing made by the same student after the project, we observed four (4) categories, two of which are new: building, chimney, conveyor belt and product. The student thus added two new motifs to the pre-test, increasing the number of visualised motifs by 100% (2 : 4).

This type of analysis was used to obtain data on all 224 tests, while the interesting features that appeared in each test were also extracted. The student in question drew two chimneys, even though most of the students drew only one chimney. The number of identical motifs in each test was ignored in the analysis, and the observed discrepancies allow further analysis, despite the completion of the survey. In the post-test, we noticed the unusual purpose of the factory: we were not sure whether it was a factory of joy or a factory of sorrow. Based on the question that arose, we prompted the student to provide a clarification of the drawing during the interview. The student explained that it is a factory of joy, because expressionless faces emerge from the right edge and become joyful in the factory. These faces continue on a conveyor belt to the left edge of the factory, where they are wrapped in packaging, so it looks like the faces are wrinkled. The person who receives such a bag opens it and a smiling face jumps out, making the person happy. In this way, information was obtained on whether and how the numbers of different motifs differ in the visual pre-test and post-test through test

analysis. For visual tests that could not be interpreted unambiguously, we spoke to the creators of the drawings during the interviews, thus obtaining an in-depth authorial contextual explanation of the drawing alongside the numerical data. By conducting the interviews, we gained insight into the personal content of the drawings and their meaning for the creators (Hall, 2020).

Results

Analysis of the Visual Tests in Terms of the Number of Different Motifs Depicted at Group Level

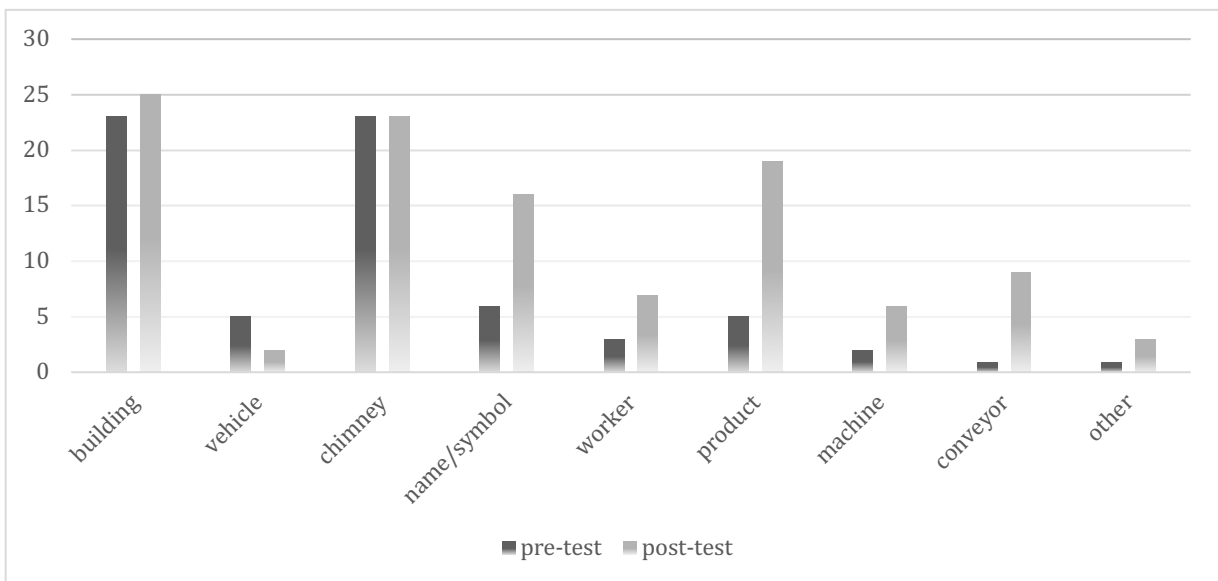


Figure 9. Number of different motifs in the pre-test and post-test for the visualisation of the concept of factory.

After reviewing the drawings of factories created by the students in the pre-test and post-test, the motifs that appeared in the visualisations were organised into eight different categories: building, vehicle, chimney, factory name/symbol, worker, product, machine and conveyor belt. The ninth category of “other” included individual elements that did not belong to the eight determined categories and appeared only once. The data entered in the table reflects whether or not the motif appears in each visual test and not the number of identical motifs in a particular test. It was found that the vast majority of the students drew a building with a chimney in both tests (23 students), while other motifs varied, suggesting that students changed their understanding of the concept after the project. It can be observed that fewer names or symbols representing a factory were drawn in the pre-test (pre-test: 6, post-test: 16),

and it is particularly noticeable that the students did not emphasise the processes that take place in the factory in the first test, focusing only on the factory as a building. While 5 students drew the product in the first test, 19 students drew this motif in the second test. There was also an increase in the number of workers (3 : 7), machines (2 : 6) and conveyor belts (1 : 9), suggesting that the students were equipped with knowledge about factories when visualising the factory on the post-test. The average number of motifs drawn also increased. On average, each student drew 2.5 motifs in the pre-test and 3.9 motifs in the post-test. Considering the number of different motifs, it is clear that the pre-test and the post-test showed differences in the visualisation of the concepts, i.e., that the students changed their understanding of the concept of factory and broadened their conceptual field.

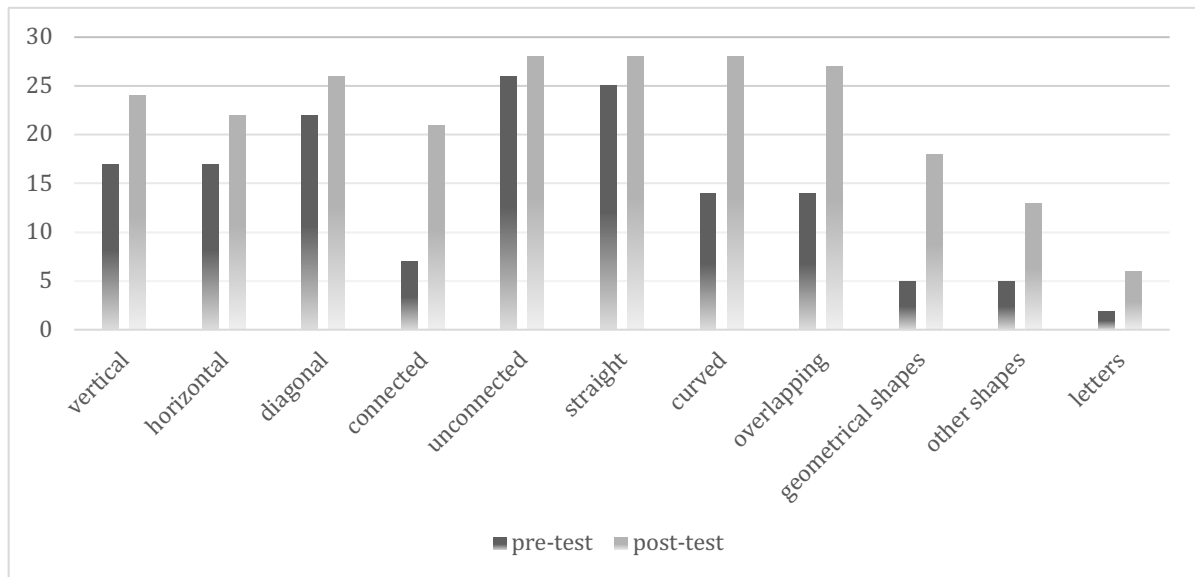


Figure 10. Number of different motifs in the pre-test and post-test for the visualisation of the concept of lines.

The lines represented a special concept, as we had the impression that what was drawn could not be considered as a set of different motifs. Whereas, in the factory visualisation, a particular student's drawing represented a set of motifs, such as building, chimney and machine, the lines were about the different properties of lines, i.e., vertical line, curved line, folded line, etc. Nevertheless, since the objective was to analyse the content, it was decided to treat the line properties as motifs: vertical line motif, horizontal line motif, overlapping line motif, etc. These motifs were grouped into the following categories: vertical, horizontal, connected, unconnected, straight, curved, overlapping (lines), geometrical shapes, other shapes, and letters (made up of lines). The term "shapes" refers to recognisable images that have been drawn with lines; for example, one student drew a winter pullover on which

geometric figures appeared. In this case, he depicted another shape motif (the jumper) and a geometric shape motif (the pattern). The number of depictions of all motifs increased noticeably in the post-test. The most noticeable difference is in the motif of connected lines, which was drawn by 7 students in the pre-test and 21 in the post-test. The average number of motifs in the first test was 5.5, while the average number of motifs in the second test was 8.6. The pre-test and post-test showed differences in the visualisation of the concept of lines, as the students drew significantly more different motifs in the post-test. In the pre-test, there were mainly vertical, horizontal and diagonal lines, whereas in the post-test there were a lot of overlapping curved lines and shapes made of lines – lines in context. It can be concluded that the students extended their understanding of the concept of line.

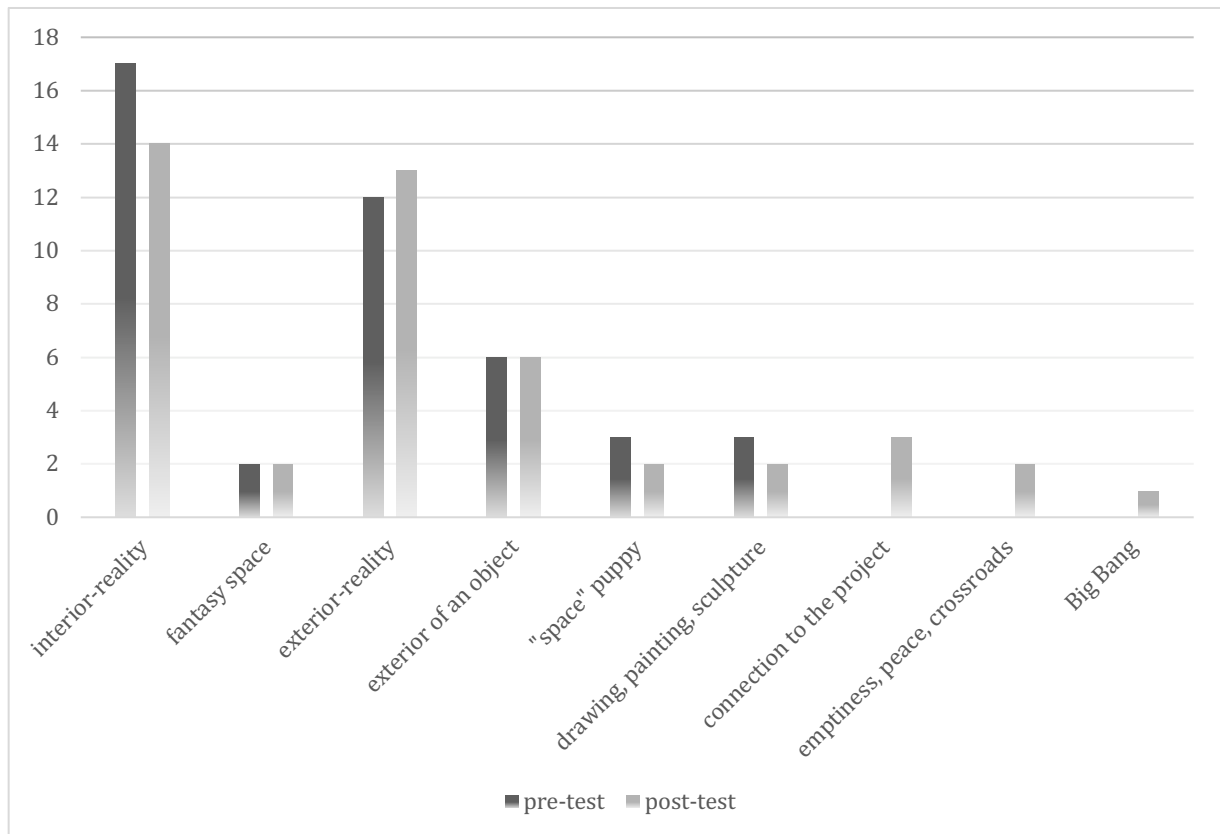


Figure 11. Number of different motifs in the pre-test and post-test for the visualisation of the concept of space.

When analysing the visualisations of space, the following categories of motifs were created: interior (real) space; imaginary space; exterior space; exterior of a building; puppy space (a phrase used by puppy owners) and painting/drawing/sculpture. In the pre-test, most of the students drew either an outdoor or an indoor space, but in the post-test new motifs appeared in

the drawings that could not be classified into the given categories. The following additional categories were therefore created: connection to the project; emptiness, peace, crossroads; and Big Bang. We decided to highlight the motif of the Big Bang, which was depicted by one of the students and whose depiction seems to us to be special: the Big Bang is understood as the emergence of time and space. When visualising the concept of space, we noticed new motifs appearing in the post-test, with the number of different motifs increasing from 5 to 8. The average number of concepts drawn by the students increased minimally. In the pre-test, the students drew 1.5 motifs on average, while they drew 1.6 in the post-test. It was observed that the students changed motifs (e.g., a student who drew a meadow in the pre-test drew an indoor space in the post-test), but the number of motifs did not increase. A comparison between the pre-test and the post-test thus shows differences in the visualisation of the concept of space. In the post-test, new motifs appeared, while no significant differences were observed in the number of different motifs. It can be concluded that this is due to the fact that space as learning content was not directly involved in the learning process and the students therefore mainly drew their own experiences of space in the drawings.

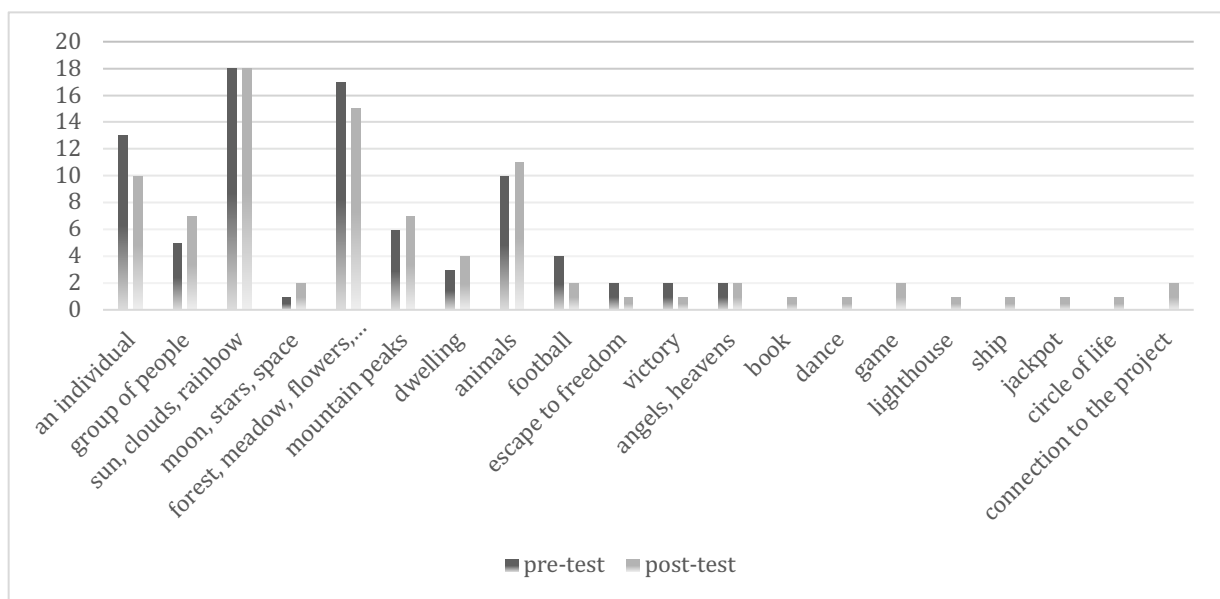


Figure 12. Number of different motifs on the pre-test and post-test for the visualisation of the concept of freedom

After the pre-test, we formed the following categories: an individual; group of people; sun, clouds, rainbow; moon, stars, space; forest, meadow, flowers, trees; mountain peaks; dwelling; animals; football; escape to freedom; victory; and angels, heaven. The students most often drew an individual surrounded by nature, with a perfect sky with the sun and/or clouds and/or a rainbow. From what was drawn, it was inferred that the students found freedom in

such an environment, but it seemed even more likely that they already had a constructed idea of freedom acquired from various media. New categories were observed in the post-test, with the number of occurrences increasing significantly (from 12 to 20). The following categories were therefore added: book; dance; game; lighthouse; ship; jackpot; circle of life; and connection to the project. Although some of these categories appear only once, we felt it made sense to include them to show the range of new themes. Similarly, to the notion of space, it was found that the number of depictions of the initial motifs did not significantly increase in the post-test, although there was a noticeable increase in the number of different motifs at the group level. The drawings were diverse, with more drawings representing activities such as reading, dancing, playing (in addition to football, which had already been drawn by many students in the pre-test). Although the average number of motifs drawn by each student increased marginally (from 2.9 in the pre-test to 3.2 in the post-test), a greater variability of motifs was observed in the post-test. The increase in variability of motifs is (partly) due to the learning process, within which we discussed the idea that the concept of freedom depends on each individual.

Comparison of the Number of Motifs Drawn by the Students According to the Visualised Concept

Depending on the number of motifs that individuals drew for each concept, pie charts were created showing how many students progressed (drew more different motifs in the post-test than the pre-test), stayed at the same level (drew the same number of motifs in the pre-test and post-test), or regressed (drew fewer different motifs in the post-test than the pre-test) for each concept. If an increase in the number of motifs is regarded as progress, it was found that the greatest progress was in the visualisation of the concept of line, with 93% of the students drawing more different motifs in the post-test than the pre-test. This is followed by factory (71% : 25%). For the visualisation of the concepts of space and freedom, the differences are smaller. This result is also related to the fact that the students changed their perceptions of the concept under consideration.

At the group level, the students made progress in terms of the number of concepts, especially regarding the concepts of factory and lines, while there was less progress in terms of the number of concepts for the concepts of space and freedom.

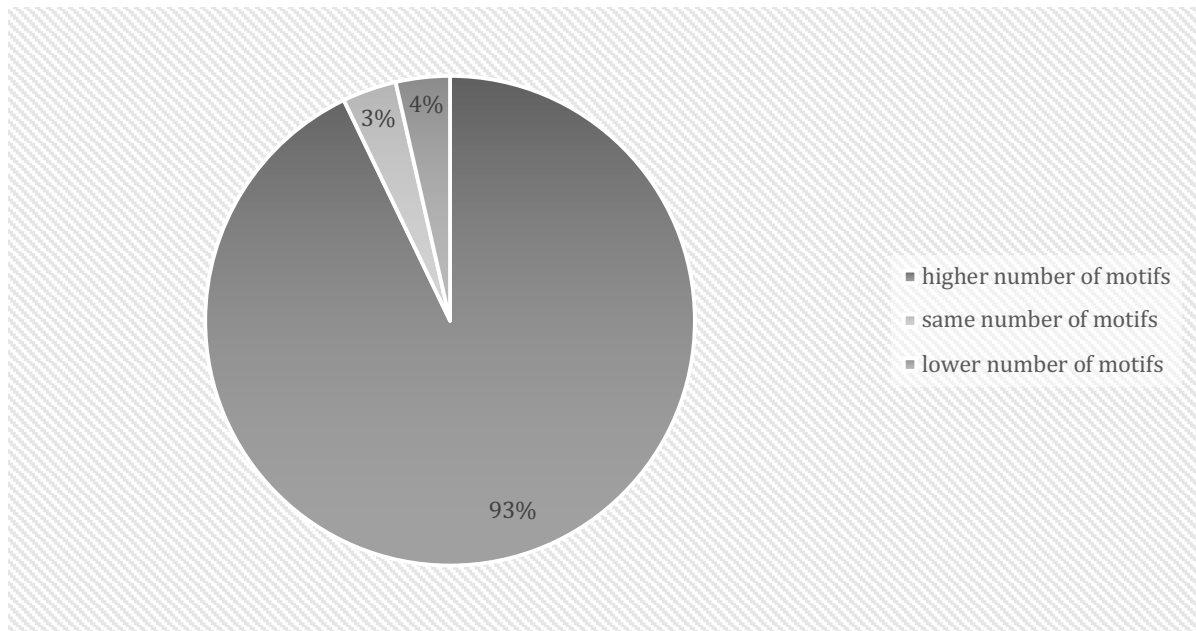


Figure 13. Pie chart showing the percentage of students who drew a higher number, the same number or a lower number of different motifs in the post-test than the pre-test (when visualising the concept of lines).

Form-Forming Analysis

The form-forming analysis was based on the changes that occurred in the visual field. The factories drawn in the first test were rigid, with most of the drawings representing a building with a chimney and windows in the middle of the lower edge of the format. In the post-test, there was much more variety, with drawings showing the action in the factory, fewer drawings with a central composition, and shapes distributed more freely around the format. In the post-test, free and scattered compositions were observed in addition to the central composition, and there was a greater density of visual elements. The drawings in the pre-test were less filled and a lower level of detail was observed. Moreover, the drawings created in the post-test were more expressive stylistically.

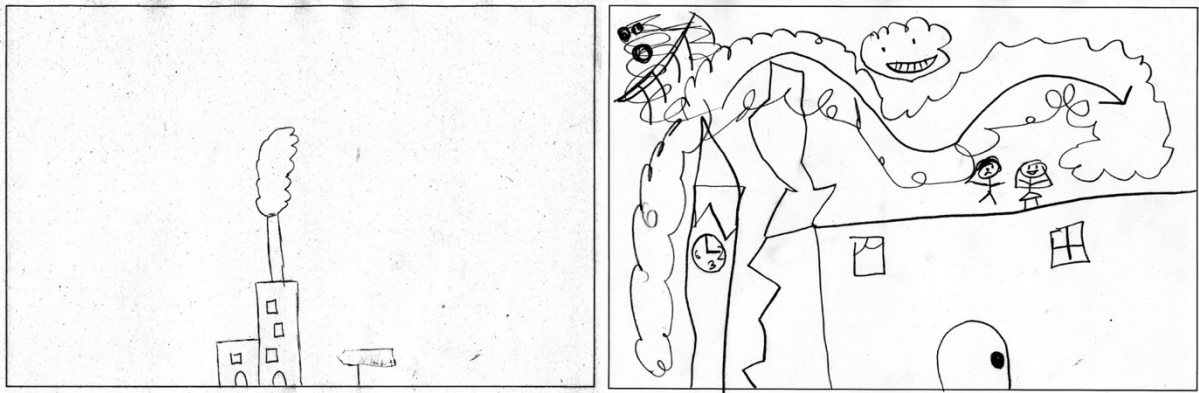


Figure 14. Pre-test of Student B; visualisation of the concept of factory (compositionally and stylistically less interesting drawing).

Figure 15. Post-test of Student B; visualisation of the concept of factory (compositionally and stylistically more interesting drawing).

For the concept of lines, the students drew many different types of lines in the second experiment, while in the pre-test they drew straight, single-pointed, repeating lines. The density of the lines changed significantly, being lower in the pre-test and higher in the post-test. Changes were also observed in the composition. In the pre-test, the composition was free and the lines did not form other shapes, whereas the drawings in the post-test were also based on a diagonal composition, a central composition, a triangular composition, etc. Furthermore, the lines in the post-test mostly formed other shapes and acquired a direction and function. Stylistically, the students were more expressive in the post-test and did not try to approach lines that would be drawn with a geometric tool.

When visualising the concept of space in the pre-test, although the students drew different motifs, in terms of innovation in their artistic approach they remained at the level of drawings with a drawn ground on which objects were placed. Most of the students drew in one spatial plan and objects and people were drawn frontally, two-dimensionally. In the post-test, however, different artistic approaches were observed and the drawings were more varied, including central, diffuse, diagonal, triangular and other compositions.

The notion of freedom changed the least in artistic terms. The shapes were arranged classically according to the format, unlike the products in the research workshops, some of which were artistically expressive, with elements arranged innovatively according to the format. Based on both types of analysis of the visual tests, we had the impression that the students were thinking about how and what they were going to draw, but that they fell into stereotypical notions of freedom. We believe that they took the commercial pictures and

images they see daily as inspiration and reinterpreted them in the pictorial space (Brooks, 2005; Knight, 2009, in Hall, 2020).

It can be concluded that the children visibly changed their visual expression in the visualisation of factory and space, while they remained mostly at the same level in the visualisation of the concept of freedom. Interestingly, the students who visibly progressed in the visual domain also showed significant progress in the content of their drawings.

Discussion and Conclusion

Based on the content analysis of the visual tests, it can be concluded that the students' conceptual field changed during the project *Movement and Its Trace*. They drew more motifs in the post-test than the pre-test, with the increase most pronounced for the concepts of line and factory: 93% of the students drew more motifs in the post-test than the pre-test when visualising the concept of line. For all four concepts, the average number of motifs observed increased in the post-test, while the analysis also showed that the students changed their motifs. The shape analysis showed that the students were more expressive in the post-test, the range of different compositions widened, and the density of visual elements increased. It was also observed that the students used different motifs in the post-test. For the concepts of factory and lines, the students drew fewer "typical motifs" in the post-test (e.g., a building with a chimney) and there was an increase in more complex motifs (production, working in a factory; folded lines; shapes made of lines). The key change regarding the concepts of space and freedom was that additional categories were added in the post-test. The visualisations of freedom, for which 12 categories were defined in the pre-test, resulted in 8 new categories in the post-test, representing an increase of 67%.

Prior to conducting the research, it was expected that the use of integrated teaching with and through the arts would result in positive changes in the students' understanding of the concepts implicitly addressed during the series of research workshops and performance preparation. A universal instrumentarium was developed to assess the actual changes of the participating students and their work, and their progress was monitored in a variety of ways. Based on analysis of the visual tests, observation and semi-structured interviews, it was found that the students expanded their conceptual field of the concepts addressed (factory, lines, space and freedom) during the integrative teaching. They were able to place the concepts in different contexts and responded positively to the integrated teaching with dance and art. Their participation resulted in a multitude of high-quality creative products, they solved challenging problem situations during project work, and they were productive and happy to participate in group and collaborative work, thus deepening and strengthening interpersonal relationships in the classroom community. The students were also happy to participate in the interviews and "enjoyed talking about what they had drawn" (Hall, 2020). Given that (cf.

Donovan & Pascale, 2012) creativity, teamwork, problem-solving and critical thinking are among the most important twenty-first century skills, we believe that the goal of the research was achieved. The students broadened their conceptual field of the concepts discussed, and during the workshops and the performance individuals developed areas of interest that would have been difficult to discover in traditional schoolwork.

The research was based on the integration of visual arts and dance. We believe that both disciplines retained their characteristics and that their interplay enriched the learning process. The students were able to express themselves freely through the language of dance and art, and had an opportunity to embody the chosen themes, thus deepening and internalising their knowledge. At the same time, they actively participated in the whole creative process, from the museum visit to the research workshops and the dance and art performance according to the Midway model by Smith Autard (2002).

During the creative work, interaction developed between the students themselves, as well as between the other research participants. Positive attitudes towards the project were developed by both the teachers and the artists involved, with parallels to other research emerging; the teachers valued the in-depth treatment of the concept and the artists emphasised the teachers' involvement in the planning and implementation of the integrative activities (Corbisiero-Drakos et al., 2021). As a result, the general classroom atmosphere was creative, playful and collaborative. The students were curious and their need for independent exploration was satisfied during the activities. At the same time, the objectives of cultural and arts education were met, taking place in the authentic environment of a cultural institution.

We would like as many people as possible, starting with primary school children, to be aware of a holistic view of art. Consequently, we believe that projects involving a team of students, professionals, artists and educators are important for the holistic development of children. In the school context, such projects offer a rare opportunity to prepare students to face a world in which they will have to solve problems, work in groups, construct ideas, and nurture and defend their individual expression.

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