

Creative Experimentation and Critical Learning Based on Object Art: Identifying Trainee Teacher Concerns Regarding Students

Manuel Pérez-Valero
University of Granada, Spain

Rocío Lara-Osuna
University of Granada, Spain

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Abstract

Meaningful learning in artistic subjects leads to ethical responsibility when training teachers of the future. In this sense, research and artistic creation provide students with a channel for reflection, analysis, and communication regarding their concerns as trainee teachers. The project delivered here encouraged and motivated students in the classroom through visual discussions that exhibited trainee teachers' expectations in the future educational context. Thus, the main aim of the teaching proposal was to represent trainee teachers' concerns as future teachers and also to contribute new art-based methodologies that help students develop disruptive creation methods and processes in their classrooms. These creations (object poems) represent outcomes of the present research, which together with teaching processes provide a diversity of languages and codes that are enriched by the subjectivity of individuals. This gives rise to personal growth, subjective opinion, and personal reflection.

Introduction

Contemporary artistic education training, for both preservice teachers (identified in this paper as students) and university teachers, is fundamental to the framework of the Primary Education curriculum. It is essential to demonstrate the link between teaching and learning processes within the visual and plastic field through artistic communication and expression with social and experiential outcomes. From a contemporary art standpoint, art subjects enable us to understand the classroom as an experimental laboratory in which teachers and students collaborate on educational processes that develop creative, active, and critical thinking (Barbosa, 2019; Mesías-Lema, 2019). In this sense, contemporary art entails a large variety of agents and active participants, including teaching staff and trainee teachers. All of these individuals are responsible for raising awareness and ensuring that future generations are artistically literate (Ramírez, 1994; Vásquez Morán, 2018). The A/R/Tographic authors (artists, researchers, and teachers) of the present manuscript designed a training project that is based on object art and the sensitive/creative empowerment of design as critical communication tools (Marín Viadel & Roldán, 2021; Mesías-Lema, 2018; González-Yebra et al., 2020).

The following project was conducted within the first year Teaching and Learning of the Visual and Expressive Arts module on the double honours Primary Education and Physical Activity and Sports Sciences degree taught by the Faculty of Educational and Sports Sciences Faculty at Melilla campus of the University of Granada during the 2023/2024 academic year. Although these future teachers are specialising in sport, they must know these basic concepts of artistic aspects, given that art is a specific subject in the Primary Education curriculum. This project was intended to address the clear gap between teacher trainees' visual and cultural reality and the curricular plan of specific teaching. Educational institutions must evolve towards an education in which images and words are learnt to the same degree (Dewey, 2008). In the case of teacher training, new types of literacy linked with visual production are urgently required (Benjamin, 2004). This need encourages the exploration of new pedagogical methods in the field of artistic representation (Fernández & Johnson, 2015; Salido-López, 2017). As a result, the complex task of training must be performed through the use of new visual language, and methodologies that emphasize visual culture and all that this entails (Huerta, 2022). From this perspective, students acquire skills in multi-modal communication and engage in current social issues (McLuhan, 1964).

Focus of Research and Five Student Goals

The main aim of this action research investigation was to consider artistic practice as a form of knowledge production that helps trainee teachers to become more aware of their shortcomings and concerns as teachers of the future. This awareness also helps them to

understand the way in which the system to which they belong works, giving rise to meaningful learning through processes that are connected with their reality (Cotrina Aliaga et al., 2023). To carry out the project, artistic references were provided to help students construct visual narratives about the educational system. Together with the aforementioned main aim, other objectives for student learning were also defined: i) identify and interpret the artistic outputs of referents used in the classroom, ii) analyse and reflect on student's personal creations, iii) recognise the importance of artistic education as a means towards full development in the formal and social ambit, iv) promote critical thinking and social justice, v) produce new art-based methodologies.

Educational methods based on art are grounded in active, collaborative, experimental, and reflective education (Barone & Eisner, 2012). Such approaches strive for artistic teaching to no longer remain absent from the experiential lives of students and the educational system (Huerta et al., 2021). To this end, teachers must imagine teaching strategies that are born out of a cultural vision that motivates and excites students (Buckingham, 2008; Scogin, 2016). The task of trainee teachers is to adapt visual and expressive communication narratives to the reality of the classroom (Munari, 2016). Art involves psychological states through tools that connect with real happenings in their lives (Pérez-Valero & Bru Serrano, 2022). This was applied in the suggested method through students' reflection on their concerns as future teachers, bestowing an emotional and intellectual quality to the creative process (Caeiro-Rodríguez, 2018; Costa-Rodríguez et al., 2021). The close collaboration between teachers and students during the process of personal analysis and object creation favours a participatory climate, in which learning and teaching together is preferred. Discussing and understanding student opinions of training with sincerity and striving to find one's place in the educational system are the building blocks of comprehensive learning (Pineda-Alfonso & Duarte-Piña, 2020). This path towards professional self-knowledge goes hand in hand with the importance of developing linguistic and visual communication skills, with the purpose that trainee teachers will be capable of decoding and constructing images in a critical and subjective way (León-Mendoza, 2019; Martín Prada, 2018). Thus, individuals participating in such arts-based educational experiences will be able to use the artistic languages they have learned in their future classrooms. They must understand the importance of managing their knowledge of visual skills and their intertwinement with their professional future (Duncum, 2015). The development of such skills, together with students' experiences and creative processes, help them to understand artistic education as a tool, not only for creation and research but, also, for self-management and action (Dondis, 2017).

Specifically, the classroom experience presented in this paper is based on object art and visual poetry. These creative practices are founded on metaphors and tools for introspection, establishing a place for emotion, expression, and reflection. By taking it into the field of

artistic education, the study and engagement in the poetic process can expand students' creative experience. All of this was facilitated by their capacity for observation and perception, and by the cultural context that is inherent to each selected object. It was important that the student body at the heart of this research, as trainee teachers, learns to communicate visually and master the cultural and social symbolism that they themselves have generated as part of an active society. By studying pieces of work, referent artists switch on their senses, converting themselves into elements that are inseparable from their own creations, managing to bridge the divide between life and art (Limorte-Menchón, 2018). The Boek Visual website was used as a source to explore pieces of work including artistic works ranging from the private to the public sphere: visual poems, sculptural objects, and artistic installations. Consequently, it provided a discourse that went beyond aesthetic contemplation. Future teachers must be able to pose new ways of thinking and acting, and therefore, new ways of teaching. For this reason, they must include creative processes in their classrooms that promote not only technical abilities but, above all, form responsible and critical citizens (Bauman, 2008). This training will likely help students to find their place in a society in which the entrepreneurship factor goes hand in hand with them achieving a successful future (Vélez et al., 2020).

Methodology

An art-based action approach was followed in which the classroom is transformed into a laboratory for experimentation and creation (Jenny, 2013). Five artistic actions were proposed prior to conducting the project addressing the concerns of trainee teachers. The five objectives listed in the introduction are linked to five artistic actions which will be presented below. Each participant had to make the aforementioned actions, inviting them to rethink everyday objects and uncover alternative meanings in accordance with their interactions with them. The chosen topic (trainee teacher concerns) is of interest as it deepens knowledge on the notions held by teachers through the use of contemporary strategies employing object art. Decontextualising and experimenting with daily objects has been shown to enable students to project their concerns and assume their own commitments to teaching and creative practice (Bustamante, 2011). Here, the object emerges as a poetic bridge that repositions relationships between artistic invention and the outside world (Guigón, 1997). In order to achieve active and engaged participation, it is crucial to approach to the context under study, namely, the educational system. Indeed, students must position themselves using visual poetry and contemporary art. Students must identify and analyse the creative spaces that develop in the classroom in order to interpret and make sense of their own teacher training. Based on constructivist and social pedagogy (Harel & Papert, 1991; Piaget & Inhelder, 1966; Vygotsky, 1995), it is interesting to observe the way in which the creative processes used in the methodology are similar to those used by artists in their studios (García-Huidobro & Schenffeldt Ulloa, 2020).

The Process of Object Poetry

When students engage in experimental processes, they can learn to value accidental or random outcomes and search for a range of possibilities in their art making (Ross, 2024). This is made possible by restructuring the classroom as a laboratory-workshop in which error is understood as a building block towards achieving “success.” This trains students not to view mistakes as failures. The context and each given object must be considered as a part of student imaginaries (a set of ideas, symbols, and social and cultural representations that are collectively accepted), constituting a part of their very makeup (Greimas, 1987). Object-based learning has grown in pedagogical importance, previously undiscovered by students. It has been used to trigger reflection on the artistic and educational landscape (Martín-Piñol & Calderón-Garrido, 2021). All elements of object poetry, whether aesthetic or conceptual, provide a clear interpretation of that which is expressed through artistic creation (Arnheim, 2005). Students have learned to observe and transform objects, bestowing them with new conceptual functions. Better informing the outlook of students has been shown to raise their awareness regarding the outside world and, in this way, enable them to pass individual judgement (Díez-Gutiérrez & Rodríguez-Fernández, 2018).

In the present study, a group of 59 students with an average age of 18 years took part, comprised of 48 males and 11 females. Participating students analysed and interpreted images and worked with artistic referents on object poetry and visual metaphors. Given the small sample size, it was possible to work in a more personalised way, allowing more in-depth work on the issue. For the final piece of work (project on concerns as future teachers), groups made up of between four and six students were formed, producing up to 14 object poems. Throughout the entire experimentation and creation process, a large number of images were produced which were continuously uploaded to Instagram profiles (portfolios) created for the module.

Artistic Actions Pertaining to Object Experimentation

1st action. Select an object and draw the outline of the object on a piece of paper, turn the base and find new graphical solutions. Sticking to the outline, make a drawing of what it could end up being. The drawing is made within the outline of the object, using the greatest surface area possible.

2nd action. Place the same object on a piece of paper and draw (the drawing should be joined up as opposed to two independent components). This composition will give rise to a new representation. Consider what the drawing seeks to communicate.

3rd action. Take a photograph of the object from an angle that does not allow it to be

recognised. The aim is to play at deceiving the viewer.

4th action. Relate the object used previously with another object, or objects, in order to reveal associations regarding meaning, texture or concept.

5th action. Cover (using plasticine or any other similar type of material) the object introduced above in order to transform it into something else.

In Figure 1, the work completed by a female student using an umbrella as a daily object can be observed (Figure 1a). When completing the 1st action, she turned the base of the object on which she was working until an elf's head appeared. Following this, she expanded the surface area of the outline created as much as possible and coloured it in (Figure 1b). For the 2nd action, she repositioned the umbrella on a new base and drew a background made up of natural motifs. Both components (umbrella and background drawing) were perfectly integrated, producing an image that looked like a bat resting (Figure 1c). In the 3rd action she was requested to photograph the umbrella in such a way that viewers believed it to be a different object, in this case, the other object was a work tool (Figure 1d). Next, for the 4th action, she placed the umbrella on a support and related it with other objects (ties and spikes) so that it, she realized that the object acquired a new meaning. The concept that emerged from this was a circus tent (Figure 1e). For the final object experimentation action, this student completed the 5th action, with the task being to wrap or cover the object in order to transform it into something else. The new image to emerged was inspired by the work of art, Spider, conceived by Luise Bourgeois (Figure 1f).

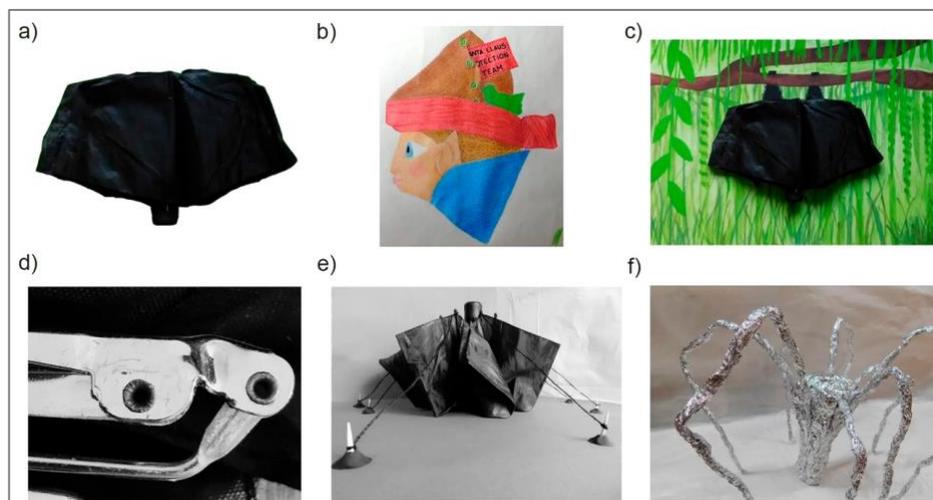


Figure 1. Visual and expressive experimentation through the proposed artistic actions. An umbrella was the chosen object for performance of the project actions.

Note: Photographs taken by a participating student (1st year, Primary Education and Physical Activity degree, 2023/2024 academic year).

These artistic actions were performed within spaces for dialogue and reflection, in which students were requested to continuously analyse the different concerns they had faced, both creatively and as teachers over the previous few decades, and the way in which, through artistic training and study, they were able to understand and overcome them (De Juan, 2018). The actions discussed above served as an introduction to tackle the last part of the project in which students were required to develop their own artistic proposal (of object art) which reflected their concerns as trainee teachers. The project opened up a new line of research that strives to uncover new artistic strategies applied in the object world for their use in the context of education.

Final Object Poetry Project on the Concerns Held by Trainee Teachers.

As already discussed above, the five preliminary actions served as experimental preamble in order to unveil that potential of object poetry, in both a conceptual and a material sense. Once this phase of discovery was complete, two referents provided by Boeck Visual were to be used to serve as the building blocks for constructing an object poem (as a group) that communicated their concerns as future teachers. Creation and experimentation processes were shared through Instagram profiles, that acted as a portfolio, so that through instantaneous photography (Márquez Casero, 2018), so that the entire student body could get to know and review the way the other students were working (Brown, 2005; González-León, 2021). The variety of possibilities made available through three-dimensional objects is never-ending as it invites students to create and reflect. They communicated through the objects they brought with them into the classroom (piling them up, joining them to others, breaking them down into their separate parts, etc.) which revealed that all objects possess specific connotations that align to the personal experiences of participants. The methodology used was based on autonomous learning based on discovery, experimentation, problems, collaboration, projects, critical thinking, and reflection (Cánovas-Marmo, 2015; Gutiérrez & Fernández, 2018; Pegalajar-Palomino, 2020). All of these approaches are inherent to artistic teaching methodologies (Marín & Roldán, 2017), in which image creation serves, as not only a means of documentation (Whiston Spirn et al., 2022) but as a knowledge generator linked to students' most critical realities (Castillo Cuadra, 2020; Ross & Gautreaux, 2018). In this exercise, the most important thing is finding connections that produce unity and coherence. Thus, the object poems produced must have the same material and conceptual properties as the selected objects. Prior to elaboration of the final object poems, work groups were tasked with producing sketches, which could be produced manually (Figure 2b), using some type of image publishing software (Figure 2a) or through artificial intelligence (Figure 2c). This preliminary process, prior to elaborating the final piece of work, made it possible to identify aesthetic solutions before completing work on the final object.

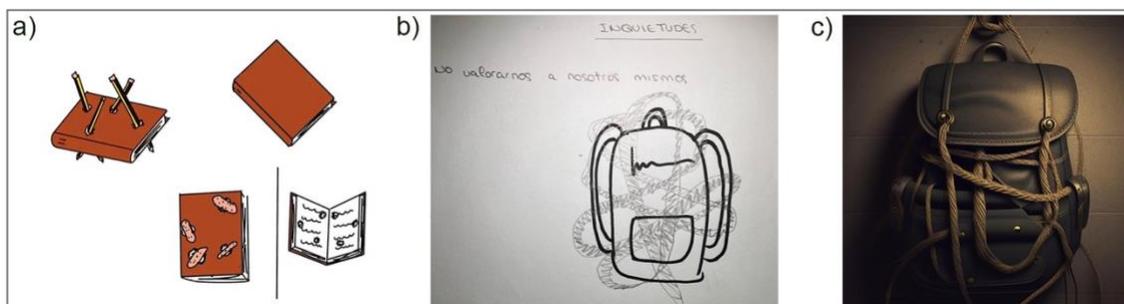


Figure 2. Completion of sketches for the final project on the concerns held by students. Note: Photographs taken by a student (1st year, Primary Education and Physical Activity degree, 2023/2024 academic year).

The present proposal was conceived from a perspective in which the personalisation and uniqueness of student discourse are important too. Mastery of the technique is relegated to the background, as the objects themselves are foregrounded with their formal and conceptual characteristics. The aim was to explore research and creation methodologies bound together by a strong social commitment to ensure that the lived experiences of students are brought to the fore. Indeed, artistic training must provide a lens for interpreting the reality lived by students through sensitive and critical language (Pérez-Valero et al., 2023).

Results

This section presents some of the images resulting from the final project. All creations were displayed, in poster format, in the teaching building of the Faculty of Education and Sports Sciences in Melilla. Visual and object outcomes revealed that students held a number of concerns regarding different aspects of their professional training (Table 1). For example, concerns emerged regarding school bullying, losing hope, lacking motivation, not knowing how to monitor different profiles belonging to students, and not having enough freedom for creation. In addition, it was revealed that understanding and producing artistic creations as forms of visual communication helps give voice to more unique ideas and feelings. In other words, besides simply working with visual shapes from the object universe, critical thinking and personal expression was developed. It serves to highlight that the materials and techniques employed throughout the project provided students with creative freedom, enabling them to choose the object that best explained and communicated their concerns. In this way, students learned to observe and analyse their own objective context, in order to be able to work with their chosen objects in their primary classrooms and move beyond the simple use of traditional materials. Recontextualising codes pertaining to the object universe and bestowing them with an educational purpose produces visual discourse that reflects the educational system on whose shoulders it rests (Maggio, 2018). The object acted as a source

of information and social transformation, filled with a strong cultural meaning through the language and codes that are used in contemporary art as tools for promoting thinking and learning.

Table 1

Main conceptual and material outcomes

Main concerns presented by trainee teachers	Artistic media worked with	Object material used
Failure (Figure 3a)	Installation	Chair
Uncertainty and the unknown (Figure 3b)	Photography	Backpack
Losing the motivation and desire to teach (Figures 3c and 3d)	Sculpture	Book
Lack of support and poor working relationship with colleagues (Figures 4a and 4d)	Object poem	School resource
Not being a good teacher (Figures 4b and 4c)	Visual poem	Ropes, chains and padlocks
		Notes and OSB

Note: Table elaborated by the authors

The mediums and materials used enabled students to gain more in depth understanding and reflect on symbolic aspects, confirming that each given object possessed connotations that could be retained or transformed during the creation process (Heller, 2004; López-Martínez & Moreno, 2019). Thus, discourse and visual communication becomes more effective and accurate. Outcomes demonstrated the suitability and appropriateness of the different artistic mediums employed to address the educational system and future teachers' integration into the system, highlighting installations and visual and object poetry as mediums with great pedagogical potential (Soto & Ferriz, 2014; Álvarez-Uria et al., 2022). Visual outcomes reflect a critical society in which students, from the standpoint of learning based on object creation, cement their values of social justice in the educational system. The object was converted into a personal discourse loaded with reflection and transgression, as a means to overcoming prejudice with regards to artistic pedagogical attitudes (Julius, 2002; McLaren, 2005). The results obtained have characteristics typical of advertising and entertainment, aspects with which the students are familiar.

The experience presented in this paper produced relatively positive outcomes, in terms of both individual artistic actions and final group work. In Figures 3a, 3b and 4d, it can be seen that

books are the main element, with this later being manipulated and customised using other elements (pens, plasters, brain, chain, and lock) in order to communicate the concern expressed by the group. The key to discourse lies in the confrontation between that which is visual and meaning, giving rise to a conceptual contrast that manages to alter the original function of the object. Another element that is repeated in group creations is the backpack or work suitcase (Figures 3c, 3d, 4a and 4c), focusing on disciplines such as sculpture and artistic installation. This element was also manipulated by work groups to be a more potent way of reflecting, in critical discourse, concerns as future teachers. Elements such as ropes (Figures 3c and 4a), bandages (Figure 3b) and deterioration of the object in question (Figures 3c, 3d and 4a) can be observed. In another image the main element is a chair (Figure 4b). For this installation, a school chair and a chair created by the work group was used, which was also manipulated by adding several elements that referred to the school environment.



Figure 3. Development of object poems about student concerns.

Note: Photographs taken by the present research team. Photographs belong to work groups 1, 5, 11 and 12.

In the present findings, students bestowed new meaning to the usefulness of their selected object. They created a new artefact loaded with knowledge (Art + Education), which served as a critical tool for the collision of meanings (Puelles-Romero, 2002; Ramírez, 2009). Students were able to produce aesthetically good images that demonstrated what they had learned throughout the creation process. Based on a didactic approach, artistic research produced artistic knowledge and critical thinking in relation to the object poems developed for the present proposal (Calderón-García & Hernández-Hernández, 2019). Visual outcomes demonstrate the way in which the object encouraged greater reflection on the educational landscape but, also, on the political, artistic, social and cultural landscape, turning the research process into a creation process in itself. Findings verify that it is not necessary to master complex techniques, but, rather, identify the role played by the foundations laid by the conceptual and material properties held by objects. In some examples, the task set for students was to reveal these qualities and demonstrate them to viewers (Figure 4c), transforming viewers into a subject who not only contemplates but, also, completes work. Thus, students embark upon processes in which their creativity and innovation is never diminished. Projection onto viewers means that the concerns held by students as a student group are also given a voice, encouraging reflection through visual arts from a critical standpoint (Baroud & Dharamshi, 2020).

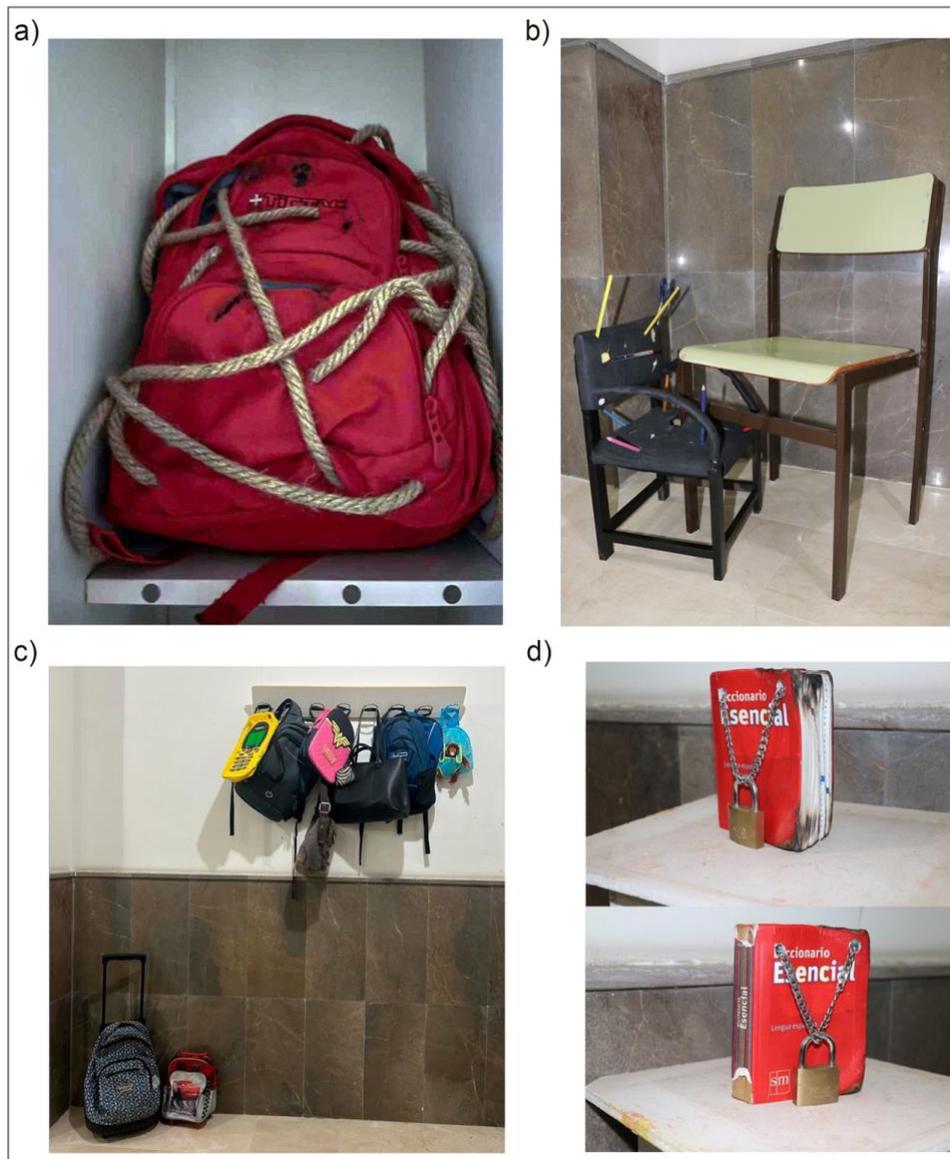


Figure 4. Elaboration of object poems about students concerns.

Note: Photographs taken by the present authors. Photographs belong to work groups 3, 9, 13 and 14.

Conclusions and Discussion

The following conclusions have been drawn, based on the objectives established for the research. The starting point is the premise of working on artistic practice as a generator of knowledge that helps future teachers to understand their weaknesses and concerns. Trainee teachers must be capable of empathising with the society around them. Not only must they feel that they themselves are awakened to that which is purely artistic but to social injustice

and personal concern for others as well. For this reason, they were tasked with teaching and equipping the children in their classroom and those in their family and social sphere with engaging artistic strategies. According to Fontal Merillas and colleagues (2015) and Marín Viadel and co-authors (2020), the arts offer a perfect tool for educating, both academically and ethically, at any given educational stage. This recognises the importance of arts education as a means of formal and social development (objective iii). Art, through observation, exploration and discovery, acts as a form of training to those who participate in its creative processes. It is therefore important to know and analyse the references used in the classroom (objective i). It serves to communicate sensations, lived experiences and concerns (unique or shared), whilst also enabling immersion into the essence of human beings. Students understood, as stated by Munari (2016) and Dondis (2017), the importance of analysis and reflection when using teaching strategies inherent to syntax and visual communication. The experience developed in the present study emphasised the value of education as much as lived experience, and was based on committed and critical artistic education (Caeiro-Rodríguez, 2018; Castillo Cuadra, 2020; Roldán, 2012; Saura-Pérez, 2015). Through the present project, students managed to construct object discourses that were tied to their visual culture and used an artistic way of thinking that bred intellectual knowledge linked to moral and ethical values regarding the educational and social system (Ross & Gautreaux, 2018). It will now be necessary to highlight the importance of the work using artistic creation and research methods. Students have previously been able to generate new methodologies from the arts to connect the project with their real experience within the education system (objective v).

Students understood the importance of possessing an education based on real life experiences, emotions and their cultural imaginary, when it comes to understanding and handling different ethical and moral values which they can later carry with them into a reflective space. The methodology employed, therefore, was well accepted and broadened the pedagogical potential of contemporary art in trainee teachers. In this way, the project managed to stir motivation, awaken the imagination and evoke fantasy, curiosity, and creativity, linked to the development of critical and reflective thinking (objective iv). The research presents an educational experience in which the object universe served to give students a voice and produce discourses targeted towards their social reality. In this way, the value of creative experimentation and the intellectual dimension of critical learning emerge as the common axis on which the research rests (Kalin, 2018), reflecting the endeavor for visual narration that is more in keeping with a critical outlook. In this sense, teachers of the future demonstrated the huge potential of the object universe, at a pedagogical level as much as an investigative one, promoting critical capacity and motivation in the classroom. Experimentation and creation processes based on the dialogue taking place in class were used to awaken curiosity for the object (Marrero, 2019). Both individual and collective discourses were produced by analysing and reflecting on their own artistic productions with didactic purposes linked to teaching and

learning with contemporary codes and languages (objective ii). Object poetry, as a tool for communicating the concerns of students, soon to be teachers, awoke a desire for the intellectual in participants. In conclusion, research is presented that has contributed to generating debate in the academic community (students and teachers), given that it managed to effectively address real world problems faced by trainee teachers.

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About the Authors

Manuel Pérez-Valero is Plastic Artist and Assistant Professor at the Melilla Campus from the University of Granada (Spain). He has developed a formative, professional and research profile in the contexts of Fine Arts and Art Education. He is specialist in the field of the found object, visual/objectual poetry, sculpture and installation art as a narrative-plastic construction and its implementation in the educational and social context, the subject of his doctoral thesis and subsequent contributions and studies. With regard to artistic research, a fundamental activity that has a direct impact on his teaching quality and his area of knowledge, his work is extensive, with a total of eleven solo exhibitions and hundreds of group exhibitions (national and international). These exhibitions offer contributions with diverse lines of interest, including artistic research and creation, as well as management and curatorship.

Rocío Lara-Osuna is assistant professor at the Melilla Campus of the University of Granada (Spain). She holds a degree in Fine Arts and a PhD in Arts and Education. Her artistic and research production focuses on the use of Projection-Based Augmented Reality for the development of arts-based teaching methods, following the didactic proposals of experimental filmmaker José Val-del-Omar (Granada, 1904 - Madrid, 1982). Since 2018, she has been developing interactive projection mapping installations, whose peculiarity is that they turn the

spectator into the creator of the projected images. She also started to encourage her students to learn about the artistic possibilities of projected images in teaching, transforming classroom into a laboratory of audiovisual experimentation to go beyond slide presentations and developing artistic interventions.