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# DIDACTIC OF VISUAL ARTS: EXPLORATION OF CREATIVE PROCESSES WITH AND WITHOUT AI ASSISTANCE IN ARTISTIC PROJECTS

In artistic education, the need to understand how Artificial Intelligence (AI) tools can influence creativity and educational processes in the visual arts has been detected.

This thesis project investigates how the integration of AI in the teaching of visual arts affects the creative processes of students.

## PROBLEM STATEMENT

Digital reality is exerting an indisputable influence on artistic creation processes. A new context of creation, dissemination and reception, based on the technological society and the possibilities of networking, is profoundly transforming some conceptual parameters linked to the teaching of visual arts (Marfil & Álvarez, 2017).

Although AIs dedicated to different tasks have spread, such as creating and manipulating images or videos, those that offer the option of natural language management are the ones that have had the most impact (García-Peñalvo et al., 2024).

We must aim to reflect on the importance and true usefulness of the implementation and assistance of AI in our teaching work (Padilla, 2019: p. 260).

- 1 How should the introduction of AI be implemented in university artistic teachings?
- 2 What differences do we find in creativity, perceptions and satisfaction between traditional methods and those that incorporate AI?
- 3 What recommendations to optimize visual arts teaching can we make to be at the forefront of innovation and development?

## HYPOTHESIS

The integration of AI tools in the teaching of university visual arts would significantly improve the creativity and effectiveness of the educational process compared to traditional methods and would help avoid the technological gap, similar to what happened to those people of the preceding generation who were not trained in the use of digital tools.

## OBJECTIVES

- 1 Evaluate perceptions and satisfaction.
- 2 Identify differences in creativity.
- 3 Offer recommendations for the optimisation of didactics, developing specific strategies to effectively integrate AI tools into the curriculum.

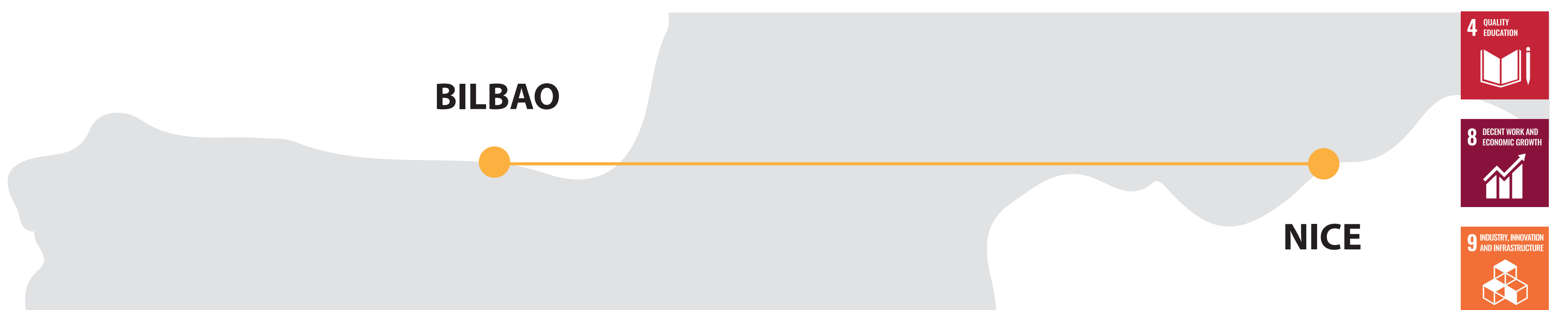
## METHODOLOGY

General approach: action research

The action research approach is a research methodology that combines research with practical interventions oriented to change and improvement in a specific context (Latorre, 2015).

The work of this doctoral thesis will be carried out in three phases: preparation (documentation), development (workshop) and definition (publications).

The core of the project will be a study with university students of artistic education from the UPV/EHU through a theoretical-practical workshop in which visual artifacts will be developed with the application of AI in the creative process for their subsequent analysis.



## PROCEDURE

24 students from the Faculty of Fine Arts of the UPV/EHU will be recruited through a selection process in which the highest ethical standards will be met in relation to the participation of individuals. The participants will be divided into two groups of twelve members each. Both groups will receive training in AI tools to create visual artifacts.

At first, both groups will work on a different topic without the help of the AI. Later they will exchange the theme and, this time, they will be able to use AI tools to create their artworks. Technical and artistic assistance will be available for both groups, with weekly follow-up sessions, during the completion of the projects.

Throughout the process, the progress, satisfaction and perception of the participants will be evaluated through surveys and thanks to an in-depth interview in the middle and at the end of the creation period.

A team of experts will carry out a qualitative analysis of the artistic works, based on criteria of creativity, innovation and technical quality.

Work on the same topic done with and without AI assistance can be compared. The performance of students with and without the help of AI working on the same type of project will also be comparable.

An exhibition of the works will be held, where the opinions of both professionals in the sector and the general public attending will be collected.

An interpretation of the interviews and feedback will be carried out, identifying patterns and recurring themes applying Grounded Theory.

## CONTRIBUTIONS

The study will provide new insights into how AI tools can influence creative processes in the visual arts, providing a theoretical and empirical basis for future research in the field of arts education and technology.

The publication of three articles in high-impact indexed academic journals in areas such as artistic education, educational technology and creativity is expected, contributing to the existing literature and serving as a reference for researchers and educators.

The research will develop and validate new teaching methodologies that integrate AI, providing a structured, evidence-based framework for application in diverse educational contexts.

## REFERENCES

- García-Peñalvo, F. J., Llorens-Largo, F. & Vidal, J. (2024). *La nueva realidad de la educación ante los avances de la inteligencia artificial generativa*. RIED-Revista Iberoamericana de Educación a Distancia, 27(1), 9-39.
- Latorre, A. (2015). *La investigación-acción: conocer y cambiar la práctica educativa*.
- Marfil Carmona, R. & Álvarez Rodríguez, M. D. (2018). *El software creativo en la educación artística: reflexiones y posibilidades en torno a The next Rembrandt*.
- Padilla, R. D. M. (2019). *La llegada de la inteligencia artificial a la educación*. Revista de Investigación en Tecnologías de la Información: RITI, 7(14), 260-270.