

# Chapter 10

## Innovating in the Teaching of Perspective Drawing: From the Physical Model to the Virtual Environment

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### **ABSTRACT**

*The main objective of the project is to develop an application that helps students to work on the perception and analysis of space for its subsequent representation, focusing initially on the gradual understanding of the basic concepts of conic perspective. The idea is to develop a didactic tool that allows to visualize those lines and points not visible in reality, but necessary to establish and assimilate, for a correct spatial representation and that are so difficult for the student of artistic education. It is a support tool for the teacher to work on the drawing process, the education of the gaze, the perception of volumetry, the simplification of forms, and the understanding of depth.*

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## **INTRODUCTION**

When a student begins his or her training in the discipline of drawing, both technical and artistic in middle or higher education, he or she needs a solid foundation to understand and process the principles and systems of representation.

In this chapter we will address the difficulties underlying the representation of conic perspective of both spaces and objects.

The education of the gaze, the perception of volumetry, the simplification of forms and the understanding of depth are concepts that are complicated to explain and assimilate for students of artistic education (Ruiz, Perandones, & Rodríguez, 2021).

Concepts such as horizon line (LH) or lines and vanishing points have the intrinsic difficulty of being elements that are not seen when a student is drawing a scene from life. The student must imagine these concepts, visualize them in his mind and articulate them correctly on paper in order to make a correct representation subject to the laws of conic perspective. Inconsistencies and misrepresentations are common. Therefore, support tools are necessary to help the teacher in his exposition and explanation, allowing the student to visualize the LH or the vanishing points and lines in the scene to clarify his understanding.

The resource of the physical model as a valid and effective resource to understand concepts linked to perception and visual and spatial analysis, is reformulated, from the work of the authors of this research, materializing in a technological tool designed and developed specifically for the occasion. The main objective of this PC application is to help teachers and students to work on the perception and analysis of objects and spaces.

The following have been defined as secondary objectives:

- To value the use of this application as a support and study resource in technical drawing and artistic drawing classes.
- To value the usefulness of the application to understand concepts such as horizon line, vanishing points, point of view, etc.
- To value the functionality and usability of the application.

## **BACKGROUND**

Following the study carried out in the U-Innova 2020-21 project “Adaptation of artistic teachings to telepresential, pure and hybrid delivery modalities forced by the Covid-19 health crisis”, Ruiz, V., Perandones, E. and Rodríguez, J. A. (2021) detected the need to reinforce the study of perception and analysis in the area of technical and artistic drawing in university artistic education. This need arises

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