

## Learning with Comics: A Case Study in Arts and Multimedia Education

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### Abstract

*The article presents the experience of teaching the Drawing IV curricular unit using evidence-based teaching as a framework for selecting pedagogical practice options. The aim of this research was to collect and map information that would enable improvements to be made to the curricular unit.*

*The creation of a comic with a free theme, made up of four pages (reference) was the project launched for the students of the Arts and Multimedia degree. The project was developed in three phases, each focussed on essential aspects of constructing a visual narrative, in an active strategy of learning by doing. In the first phase, the students dedicated themselves to writing the story (original or adapted), characterisation and character studies, as well as drawing up the storyboard and an exploratory search for graphic references. During the second phase, the focus fell on studies of environments, colour, typography and page composition. The students also delved into character design, now considering expressions and actions, as well as defining shots and framing for each vignette and a detailed script for the comic strip. In the third and final phase, the students concentrated on developing the final boards. Most of them chose to work in a digital environment, which allowed them to explore and deepen techniques and styles that resulted in a wide variety of drawing syntheses. With the aim of encouraging experimental artistic publication, a selection of 12 Comics was presented in the inaugural two-volume issue of the Fanzine ESEV.*

**Keywords:** Evidence-based teaching; Comics; Visual Narrative; Fanzine; Arts and Multimedia

### 1. Introduction

The relevance of this article is underpinned by reflection on pedagogical practice with evidence-based research that encourages informed improvement of pedagogical and methodological options for teaching in drawing, specifically Comics.

In this context, the objectives of this essay are as follows: firstly, to present the pedagogical model adopted in the Drawing IV (Comics) curricular unit; secondly, to visually document and analyse the three phases of the project defined for the creation of comics; thirdly, to reflect on the results achieved, both in terms of student learning and in terms of experimental publishing practice; and fourthly, to illustrate how the Fanzine ESEV [1,2] has served as an instrument for artistic dissemination and for increasing student motivation.

Indeed, the case study analysis methodologically frames this observation on the Comics project and Fanzine ESEV experimental publishing project, with theoretical support from the relevant literature. In relation to pedagogical approaches, of the six approaches identified by Herodotou et al. [3], as the approach with the most robust evidence and/or potential for the education of the future, we adopted *Formative Analytics* and *Teachback*. *Formative Analytics* approach involves encouraging students to reflect on their learning process by discussing and monitoring projects individually. This process provides students with feedback about possibilities for improvement, enabling each student to achieve the greatest success in the final result. This is due to the project-based nature of the curricular unit. We also adopted *Teachback*, which encourages students to justify their creative choices in the weekly project follow-up. This process involves framing the specific content of each stage of their comics development. This approach demonstrates their progress and understanding of each topic set out in the curricular unit syllabus.

The sequence of topics in this article is proposed as follows: firstly, the training context of the Drawing subjects and their progression to Drawing IV (Comics) will be presented, as part of the Degree in Arts and Multimedia at the School of Education of the Polytechnic Institute of Viseu, Portugal. This is followed by an observation on the pedagogical framework and phasing of the Comics project, accompanied here by graphic evidence of one of the projects developed in response to the brief given to the students. This paper will briefly consider the significance of fanzines as artistic graphic manifestos. It will recognise the value of this experimental publishing practice, which, due to the scarcity of available resources, summons creative intelligence and proves to be an effective means of giving visibility to the individual and collective talent of those who make them. The production process and dissemination opportunities of Fanzine ESEV #01(1)Vol.1 and Fanzine ESEV #01(1)Vol.2 are described here, and the zines are presented as tangible outputs of the Drawing IV (Comics). The quality of the students' work will be highlighted as a demonstration that the expected learning outcomes of the curricular unit have been achieved through praxis. It is also noteworthy that the Fanzine ESEV project has been met with considerable approval in both academic and non-academic contexts. This positive reception serves as a sign of the efficacy of the methodological and pedagogical approaches employed within the curricular unit. The merits of these approaches are evident not only within the confines of the semester but also beyond the classroom, signifying a broader impact that extends beyond the immediate academic environment.

## **2. Context of Drawing in Art and Multimedia Training**

The Arts and Multimedia degree integrates traditional artistic foundations with contemporary digital and multimedia practices. As a multidisciplinary program, it cultivates transversal competencies essential for creative professionals. Drawing serves as a cornerstone skill—not merely a technical requirement, but a fundamental cognitive and creative process underpinning all visual communication. Drawing IV (Comics), positioned in the fourth semester of the curriculum, represents the culmination of a progressive pedagogical sequence that begins with Drawing I, II, and III in the first, second, and third semesters respectively [4]. This structured approach facilitates a comprehensive development of drawing skills through strategically sequenced learning objectives. Drawing I serves as an introductory approach to representational drawing, with particular emphasis on objects and spatial environments. The curriculum primarily addresses diagrammatic drawing and perspective techniques, establishing fundamental visual literacy and spatial reasoning capabilities essential for subsequent coursework. Drawing II advances this foundation by concentrating on observational drawing of human and animal anatomy. Both Drawing I and II are predominantly centered on cultivating observational competencies, exploring various materials and substrates, and investigating the expressive potential of drawing as a visual language. These initial curricular units prioritize technical proficiency and perceptual acuity as prerequisites for more conceptual applications. Drawing III marks a transition toward project-based implementation of previously developed skills, specifically in character design and illustration. This curricular unit bridges technical drawing capabilities with applied creative problem-solving in professional contexts. Drawing IV emerges as the final drawing curricular unit in the sequence, focusing on the application of previously developed competencies in the creation of sequential narratives. This curricular unit synthesizes observational accuracy, material fluency, expressive capacity, and character development within the structured framework of sequential storytelling. The curriculum thus progresses systematically from fundamental perception and representation to increasingly complex narrative and conceptual expression, culminating in the integrative approach of Drawing IV (Comics).

## **3. Drawing IV — Pedagogical Framework and Comics Project Phases**

The Drawing IV (Comics) curricular unit contributes 3.5 ECTS to the study plan of the Degree in Arts and Multimedia and has a weekly workload of 3 hours, comprising both practical and theoretical-practical components.

In the 2023/2024 academic year, 42 students were enrolled, divided into two working groups. In consideration of the designated contact hours, the prevailing class dynamic is conducive to individual monitoring, complemented by discourse pertaining to the students' projects. Theoretical content is made available throughout the project, accompanying the practice in the expected

developments at each specific stage. This is achieved by means of an active learning-by-doing strategy based on the project.

Developed over ten weeks, the Comic project responds to a brief that we recognize as ambitious, and which challenges students to create a comic with a free theme and expressive graphic technique, made up of four panels (reference). Considering the aim of creating a multi-author Comic Fanzine at the end of the project, the size of the page and the need to impose the title on the first strip of the Comic were presented as requirements. The project involves three phases of development, each focusing on essential aspects of the construction of a visual narrative and, in addition to the weekly monitoring and discussion in class, the students submit an assignment at each phase, which is subject to quantitative assessment and feedback from the teacher.

In the academic year 2023/2024, we have seen a good level of student results, demonstrating the acquisition of the essential competences of Drawing IV and its predecessors Drawing I, II and III, talent, creativity and expressiveness through Comics. The 2023/2024 edition also saw the publication of the first issue of the two-volume Fanzine ESEV, an editorial project that we hope will grow and through which we will encourage the publication and dissemination of students' artistic projects. In the 2024/2025 edition, which is currently under development, we noticed that the students benefited from the existence of Fanzine ESEV #01(1)Vol.1 and Fanzine ESEV #01(1)Vol.2, which served as a reference and initial motivation. With a focus on continuous improvement and pedagogical innovation, the Fanzine ESEV project has also served as a means for the teachers of Drawing IV (Comics) to get closer to the local Comics Library at the Viseu Municipal Public Library. A lesson is planned in this specific community space, which we are not yet able to reflect on, but which we have planned with the ambition of diversifying learning contexts, in line with the pedagogical approach of *Place-based Learning* [3].

To present the phasing of the Comics project, we will describe the main challenges with a graphic demonstration, starting with the "Primeira Impressão" project by student Mariana Nunes, also known as Xilabuquita, which is part of Fazine ESEV #01(1)Vol.1.

### **3.1 Phase 1 — Exploring**

In the first phase of the project, the students focus on writing the story (original or adapted), characterisation and character studies, as well as storyboarding and an exploratory search for graphic references.

In order to create a working base, we show the students that the same story can be told from different approaches and points of view [5] and, considering the need for complementarity between text and images in a visual narrative [6] this initial moment is completed with the creation of the storyboard and the first characterisation and sketch of the characters.

The commented exchange of visual references between teachers and students is a consolidated practice in the classroom. In this first phase, it is essential to increase the visual culture of the students, opening possibilities for responding to the project brief. In recent years, we have seen a gradual change in the students' choices, from classic American and Franco-Belgian comic references to artists popular on social networks and manga and manhwa authors, a diversification of the graphic repertoire that has an impact on the drawings produced by the students.

The "First Impression" project has gaming as its main reference, specifically the game Toontown, in the version of the Corporate Clash Studio game adapted to comics by Xilabuquita. In addition to the story and the research, the student presented a very complete storyboard and, already in phase 1, character studies that included expressions, actions and a comparison sheet (only foreseen in phase 2). This example shows that the phases of the project that we propose to the students serve as a guideline but are flexible and allow some freedom at the moment of creation.





**Fig. 1.** Storyboard “Primeira Impressão”, Mariana Nunes AKA Xilabuquita, 2023/2024



**Fig. 2.** Character study (expressions, actions and comparative sheet), “Primeira Impressão”, Mariana Nunes AKA Xilabuquita, 2023/2024

### 3.2 Phase 2 — Preparing

The second phase of the project focuses on the study of environments, colour, typography and page composition. Students delve deeper into character design, now considering expression and action. It is also at this stage that students define shots and frames, thinking about essential issues such as the flow and rhythm of reading. The creation of a detailed script is essential for the guided development of the project.

It is at this intermediate stage that most of the narrative and graphic stylistic choices are made that will give coherence to the final panels. In an effort to give the students an understanding of the specific language of comics [9], they are asked to think constantly between the detail of each drawn element and its context.

For this phase, Xilabuquita developed two main environments - a city and a forest - with very different elements of representation and colour palette. A third environment was modelled using colour alone. Typographic studies were carried out and the font variation was defined with the intention of reinforcing the physical transformation and tone of voice of one of the characters. Taking into account the objective of multi-author publication through the Fanzine ESEV, in order to mark the beginning of the story more immediately, the author found it necessary to adjust the composition of the first panel, giving more prominence to the title.



Fig. 3. Ambience and colour studies, “Primeira Impressão”, Mariana Nunes AKA Xilabuquita, 2023/2024

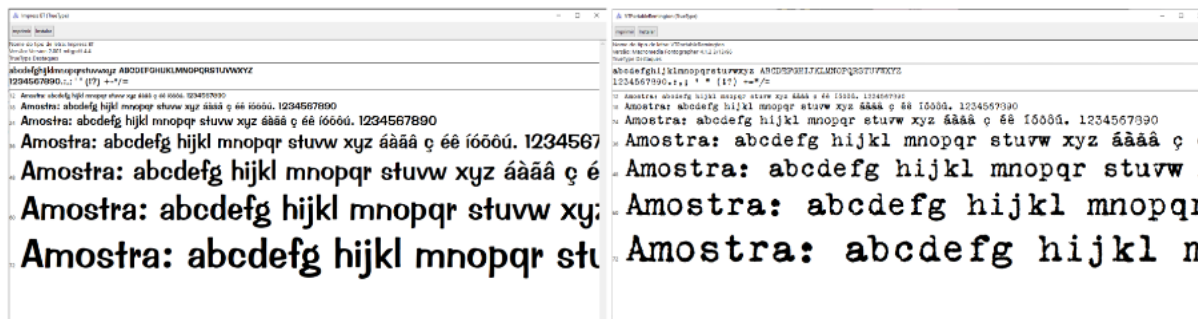


Fig. 4. Typography options, “Primeira Impressão”, Mariana Nunes AKA Xilabuquita, 2023/2024



Fig. 5. Panel layout adjustments, “Primeira Impressão”, Mariana Nunes AKA Xilabuquita, 2023/2024

### 3.3 Phase 3 — Making

In the third and final phase, students focus on the development of their final panels. Most choose to work in a digital environment, exploring and refining techniques and styles that result in a wide variety of visual narratives and design syntheses, revealing the expressive graphic identity of each author.

The sizing of the panels and the preparation of the document for double-sided folio printing will be confirmed at this stage to ensure that the requirements of the project brief are met.

Given the consistency of the students throughout the development of the First Impression project, this stage was carried out with the usual dedication and focus, demonstrating control over the timing of



tasks. The pre-delivery lesson provided an opportunity to review the finished panels, allowing small improvements to be made to strengthen the narrative, such as intensifying expressions, lines of movement, sound signals and adjustments to the ballooning.



**Fig. 6.** Final Panels, “Primeira Impressão”, Mariana Nunes AKA Xilabuquita, 2023/2024

## 4. Fanzines and Experimental Publishing

The intersection of fanzines, DIY ethos, and punk culture offers a valuable framework for understanding and encouraging experimental publishing practices. Originating in science fiction communities in the 1930s, the term “fanzine” was coined by Louis Russell Chauvenet in 1940 as a portmanteau of “fan magazine” [7]. However, it was during the punk movement of the 1970s that fanzines achieved unprecedented cultural significance, becoming vital communication tools that embodied the movement’s anti-establishment philosophy.

The DIY (Do-It-Yourself) approach central to punk ideology transformed publishing by democratizing content creation and distribution. Punk fanzines exemplify this ethos through their raw aesthetic, handmade production techniques, and distribution networks that circumvented established channels [8]. These publications were characterized by collage-based design, handwritten or typewritten text, photocopied reproduction, limited print runs, and person-to-person distribution. This approach rejected conventional production values, instead privileging authenticity, immediacy, and creative freedom. The resulting aesthetic of “deliberate amateurism” became a political statement against commercial media [9].

The fanzine-DIY-punk nexus offers valuable insights for contemporary experimental publishing initiatives through five key principles. First, accessibility: utilizing readily available tools and materials makes publishing accessible to individuals with limited resources. Second, autonomy: self-publishing creates spaces for voices marginalized by mainstream channels. Third, community formation: DIY publishing creates networks of producers and consumers that function as communities of practice. Fourth, materiality: the physical aspects of production — paper choice, binding methods, reproduction techniques — become significant components of the experimental text. Fifth, process visibility: unlike commercial publishing that obscures production processes, experimental publishing in the DIY tradition often makes these processes visible as part of the work.

Educational institutions can leverage this framework by encouraging students to engage with experimental publishing practices that embrace these principles. By providing access to basic production tools (photocopiers, binding equipment, digital publishing platforms), institutions can foster creative environments where experimental publishing thrives.

The legacy of punk fanzines demonstrates that valuable cultural production occurs outside traditional publishing frameworks. By embracing the DIY ethos of punk fanzines, contemporary experimental publishing initiatives can challenge conventional norms while creating innovative approaches to knowledge production and dissemination. The framework established by these historical practices continues to inspire new generations of publishers to experiment with form, content, and distribution in ways that expand our understanding of what publishing can be.

#### **4.1 Fanzine ESEV — Production**

In the DIY spirit and with the aim of encouraging experimental artistic publication by Arts and Multimedia students, a selection of comics developed in the Drawing IV curricular unit is part of the first two-volume issue of the Fanzine ESEV, which we hope to see grow as a means of disseminating the creativity and talent of our students.

The project brief guided students to individually present their comics in a four-page (or multiple) folio, with the final format being a printed multi-author Fanzine. As a requirement, it was suggested that the panel should be sized (195mm x 275mm) to allow the four pages to be printed in the conventional A3 format, double-sided (taking into account non-industrial printing media).

Students and teachers were involved in the process of selecting the comic strips for the Fanzine. The final presentation of the project included a moment of reading for the group to get to know everyone's work, followed by a silent vote by peers who stuck three small post-its on the projects of their preference. The teachers analyzed the students' votes and made the final selection. The editorial coordination of the project was the responsibility of the Drawing IV and Drawing III teachers in the 2023/2024 academic year.

Considering the quality of the projects, the first issue of Fanzine ESEV justified its presentation in two volumes (Fanzine ESEV #01(1)Vol.1 and Fanzine ESEV #01(1)Vol.2) with six comics each.

Digital printing was used to produce the two volumes of the Fanzine ESEV. The folios were folded and two metal stitches attach the sheets by the fold. Finally, the booklet was trimmed on three sides [10].

#### **4.2 Fanzine ESEV — Dissemination**

The production of the Fanzine ESEV has allowed the project to be disseminated through exhibitions, professional and academic events at local, national and international levels, thus fulfilling the institutional strategy of implementing artistic projects and transferring knowledge with a direct impact on society [11].

Among the actions to disseminate this project, we highlight the exhibition at the 2024 and 2025 editions of the *Solstício Festival de Artes* (Solstice Arts Festival), organised by the Viseu School of Education. At the national level, the project was one of the three selected to represent the Polytechnic Institute of Viseu in the *Design Labs* exhibition at the Funchal Biennial of Art and Design, which brings together projects from 27 higher education institutions in Portugal [12]. Still at the national level, the project was presented as an oral communication at the *Encontro Nacional de Bedetecas* (National Meeting of Comics Libraries) in 2025 [13]. This moment of sharing with professionals led to copies of Fanzine ESEV #01(1)Vol.1 and Fanzine ESEV#01(1)Vol.2 being offered to the fanzine collections of *Bedeteca (Porto)*, the oldest comics library in Portugal [14], and *Bedeteca Luiz Beira*, part of the Municipal Public Library in the city of Viseu, thus opening up the project to new publics outside academia.

Finally, in the international dimension, the communication "Learning with Comics: a case study in Arts and Multimedia education" at the 15th International Conference The Future of Education is an opportunity to reflect on pedagogical practice based on the evidence gathered in the first edition of the Fanzine ESEV project.

### **5. Conclusion**

The Comics project, which was developed as part of the Drawing IV (Comics) curricular unit, demonstrated the relevance of a pedagogical approach centred on active learning, reflective practice, and multi-author artistic publication.

While the project was a significant success, there were several challenges that deserve acknowledgement. The requirement to develop four pages of comics over a ten-week period proved challenging for some students, particularly those with weaker basic drawing skills from Drawing I, II and III and their pre-university studies. Another difficulty was the project's holistic nature, as students had to develop all the verbal and visual elements required to create a visual narrative in accordance with the specific language of comics, and many had no relevant previous experience as authors or readers.

Recognizing this context and aiming to continuously improve the students' experience and learning in the Drawing IV (Comics), we attempted to align the pedagogical approach with the demands of the Comics project. Applying the *Formative Analytics* approach promoted individual student reflection on their progress throughout the project's three phases. Weekly monitoring enabled continuous feedback loops, allowing students to iterate and refine their work and demonstrating the value of process-oriented assessment in creative disciplines. Similarly, the *Teachback* approach, implemented through justifying creative choices weekly, enhanced students' critical thinking and metacognitive awareness of their artistic decisions. In the current edition, we explored the *Place-based Learning* pedagogical strategy by offering a class at the Viseu Comic Library.

During the 2023/24 academic year, the introduction of the multi-author edition of Fanzine ESEV as an output of Drawing IV (Comics) increased visibility of the work produced in the course. The students who participated in the first edition of Fanzine ESEV feel that their work has been recognised, and many have chosen the Comics project for their end-of-course portfolio. Building on the success of the previous year, the second edition of Fanzine ESEV seeks to continue this pedagogical and editorial project, providing motivation for students of the current edition who aspire to be part of the second issue of Fanzine ESEV, which is still in preparation.

This editorial initiative has also catalysed partnerships with local institutions such as the Bedeteca Luiz Beira (Comic Library Luiz Beira), which is integrated into the Viseu Municipal Library, thereby expanding the project's reach beyond academia.

The Fanzine ESEV project paves the way for future editions, strengthening the link between teaching, the community, and contemporary artistic practice.

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## REFERENCES

- [1] Rojo, Á., Marques, B., Silva, D., Pão, J., Nunes, M., & Costa, R. (2024). Fanzine ESEV#01(1) (M. Ribeiro, S. Figueiredo, & C. C. de Sousa, Eds.; Vol. 1). Escola Superior de Educação de Viseu [Not Published].
- [2] Garcias, A., Figueiredo, C., Gomes, I., Garcia, I., Nascimento, I., & Silva, R. (2024). Fanzine ESEV#01(1) (M. Ribeiro, S. Figueiredo, & C. C. de Sousa, Eds.; Vol. 2). Escola Superior de Educação de Viseu [Not Published].
- [3] Herodotou, C., Sharples, M., Gaved, M., Kukulska-Hulme, A., Rienties, B., Scanlon, E., & Whitelock, D. (2019). Innovative Pedagogies of the Future: An Evidence-Based Selection. In *Frontiers in Education* (Vol. 4). Frontiers Media S.A. <https://doi.org/10.3389/feduc.2019.00113>
- [4] School of Education Polytechnic Institute of Viseu. (2025). Art and Multimedia Study Plan. <https://esev.ipv.pt/en/study/bachelors-courses/art-and-multimedia/>
- [5] Madden, M. (2006). 99 Ways to tell a story: exercises in style. Jonathan Cape.
- [6] Mccloud, S. (2006). *Making Comics: Storytelling Secrets of Comics, Manga and Graphic Novels*. HarperCollins Publishers.
- [7] Atton, C. (2002). *Alternative Media*. SAGE Publications Ltd. <https://doi.org/10.4135/9781446220153>
- [8] Triggs, T. (2010). *Fanzines - The DIY Revolution*. Chronicle Books. <https://www.abebooks.com/Fanzines-Diy-Revolution-Triggs-Teal-San/31307439931/bd>
- [9] Duncombe, S. (2008). *Notes from Underground : Zines and the Politics of Alternative Culture*. Microcosm Publishing.
- [10] Dias, R., Oliveira, R., Martins, F., & Dantas, R. (2020). *Making a Book: The Book Block*. 0. itemzero.





- [11] Polytechnic Institute of Viseu. (2025). Plano Estratégico 20|30 IPV.  
<https://planoestrategico2030.ipv.pt/index.html>
- [12] Bienal Arte & Design Funchal. (2025). LABORATÓRIOS DE DESIGN - Bienal Arte & Design Funchal. [https://bienalartedesign.funchal.pt/laboratorios\\_de\\_design/#next](https://bienalartedesign.funchal.pt/laboratorios_de_design/#next)
- [13] Bedeteca. (2025). Encontro Nacional de Bedetecas – de 7 a 9 de Maio em Viseu – Bedeteca.  
<https://bedeteca.com/2025/04/16/encontro-nacional-de-bedetecas-de-7-a-9-de-maio-em-viseu/>
- [14] Bedeteca. (2025). Apresentação de Uma Bedeteca – Bedeteca.  
<https://bedeteca.com/apresentacao-de-uma-bedeteca/>