

Reframing Catalog Design as Transmedia Brand Storytelling: A Curriculum Intervention and Mixed-Methods Evaluation

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Abstract: *Traditional catalog design courses often remain print-centered and struggle to cultivate cross-platform brand storytelling and narrative-system thinking. This study integrated transmedia storytelling into a senior undergraduate Catalog Design course through four stages: cognitive restructuring, systematic practice, value creation, and multiple evaluations. Using a quasi-experimental nonequivalent-groups design, 64 students (experimental n = 32; control n = 32) completed rubric-based pre/post assessments across Narrativity, Innovation, Synergy, Technicity, and Completion. Baseline equivalence was confirmed (all $p > 0.05$). The experimental group showed significant gains on all dimensions (all $p < 0.001$), with the largest increases in Narrativity (+70.20%) and Synergy (+71.90%). Post-test comparisons showed that the experimental group outperformed the control group across all dimensions (all $p < 0.05$). Interviews and observations further suggested a shift from “technical operator” to “brand narrative architect,” while also revealing difficulties in maintaining executional consistency across media. Despite the reduced analytic sample, the findings provide preliminary evidence for the value of transmedia pedagogy in catalog design education.*

Keywords: transmedia storytelling, catalog design, curriculum intervention, mixed methods, design education

1. Introduction

Under media convergence, design practice has moved beyond single-medium visual communication toward cross-platform brand narrative ecosystems (Jenkins, 2006; Scolari, 2015). Yet many catalog design courses remain anchored in print-based layout training and do not adequately address narrative construction, media coordination, or brand-world thinking. Although transmedia storytelling has been widely discussed in media and education research, its systematic translation into concrete design pedagogy remains underdeveloped (Jenkins, 2003, 2006; Rodrigues & Bidarra, 2014). This study therefore proposes and evaluates a four-stage transmedia-integrated curriculum model for a senior undergraduate Catalog Design course.

2. Course Intervention and Research Design

The study was conducted in a 32-hour Catalog Design course for fourth-year Visual Communication Design majors at Hebei University of Engineering Science. The intervention reframed the catalog as a narrative interface within a brand communication ecosystem. The experimental condition emphasized brand storytelling, cross-platform planning, and narrative continuity, whereas the control condition followed a conventional layout-focused model. A quasi-experimental nonequivalent-groups design was adopted using intact classes. Four classes constituted the instructional population ($N = 144$), with two assigned to each condition under pre-existing arrangements. Both conditions had the same contact hours, comparable workload, and the same instructional team. Of the 144 students, 64 (experimental $n = 32$; control $n = 32$) provided complete paired submissions for analysis; excluded cases involved missing or non-comparable submissions, so selection bias cannot be ruled out. Quantitative evidence was generated through a five-dimensional rubric scored by two course instructors and one industry mentor. After rubric calibration, inter-rater reliability was acceptable ($ICC = .79$). Independent-samples t-tests were used for baseline and post-test comparisons, and paired-samples t-tests examined within-group change. Qualitative evidence came from classroom observations and semi-structured interviews with 10 experimental-group students. The intervention was designed not only to improve project outcomes but also to promote a

shift in students' professional self-understanding, from technical executors of print layouts toward designers capable of constructing coherent brand narratives across multiple media touchpoints in practice.

3. Results and Discussion

The two groups were comparable at baseline, with no statistically significant differences on any rubric dimension (all $p > 0.05$). Within the experimental group, paired-samples t-tests showed significant gains across all five dimensions (all $p < 0.001$). The largest increases were found in Narrativity (2.42 $\rightarrow$ 4.12; +70.20%) and Synergy (2.24 $\rightarrow$ 3.85; +71.90%), suggesting that the intervention was especially effective in strengthening story construction and cross-media integration.

Post-test comparisons showed that the experimental group outperformed the control group on all five dimensions. The largest between-group advantages appeared in Synergy ($\Delta M = 1.32$, $p < 0.001$) and Narrativity ($\Delta M = 1.10$, $p < 0.001$), followed by Innovation ($\Delta M = 0.74$, $p = 0.002$). Differences in Technicity ($\Delta M = 0.40$, $p = 0.036$) and Completion ($\Delta M = 0.31$, $p = 0.048$) were smaller but still significant, suggesting that the model adds more value in narrative-system thinking and cross-platform orchestration than in foundational execution.

Qualitative findings supported these patterns. Students reported a shift from treating the catalog as an "information container" to viewing it as a "narrative interface," and from layout-first execution to research-driven narrative planning. Several students also articulated a stronger sense of themselves as "brand narrative architects." At the same time, some students struggled to maintain visual continuity and executional consistency across media, helping explain why gains in Technicity and Completion were more modest.

4. Conclusion

This study provides preliminary evidence that integrating transmedia storytelling into catalog design education can strengthen narrative competence, cross-media coordination, and professional identity formation. The strongest effects appeared in Narrativity and Synergy. However, the findings should be interpreted cautiously because the study used intact classes, relied on an analytic sample of 64 students, and focused on one institutional setting. Although inter-rater reliability was acceptable, rubric-based assessment still involves human judgment. Future research should employ larger samples, more detailed attrition analyses, and longer-term follow-up to examine the transferability and sustainability of transmedia pedagogy in design education.

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