

EXPLORING THE IMPACT OF LINEAR & NON-LINEAR PRESENTATION METHODS IN A DESIGN HISTORY COURSE

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ABSTRACT

Design students are well-versed in standard linear presentations: moving from slide A to B to C in a predefined order. However, they are unpracticed in non-linear storytelling in the classroom, a method that allows for narrative flexibility. This paper explores the impact of linear and non-linear presentation methods using linear and non-linear presentation software Canva and Figma in a Design History course. Eighteen design students from gaming, user experience, graphic, and industrial design disciplines participated in the study. Students made five class presentations, twice using Canva and twice using Figma and for a fifth collaborative presentation, they could choose either tool to present with. They were encouraged to experiment with linear and non-linear methods of presenting to the class.

Results indicate that Figma had a steeper learning curve than Canva; however, its non-linear structure more effectively engaged the audience, increased knowledge retention, and improved opinions of team presentations over Canva's linear structure. When asked which presentation tool to use in next year's course, 50% said Figma, 11.1% said Canva, and 38.9% said both. Disrupting the current linear based standards for design presentation tools, like Canva or PowerPoint-type products, with non-linear methods with tools like Figma enhances student learning experiences. Students also preferred presenting alongside a partner, enabling increased discussion of details and deeper exploration into critical aspects of the designer's lives.

Keywords: Design education, Figma & Canva presentations, product design history, dialogic teaching, studio-based pedagogy

1 INTRODUCTION

Students are well-versed in standard linear presentations: moving from slide A to B to C in a predefined order. However, they are unpracticed in non-linear storytelling in the classroom, allowing for narrative flexibility. Exploring the use of linear and non-linear presentation methods in the classroom and their impact on student learning warrants study. Pinker teaches that presentations should go beyond simply transferring data and facts and become a dynamic, world-making relationship between creators and audiences [1].

Linear presentations using software such as Canva (an online tool with ready-made templates) remain prevalent in design education settings and reflect historic industry standards. Non-linear presentations, on the other hand, reflect contemporary website technology and narrative development. Prosser argues that non-linear structures effectively foster personalized learning environments [2]. In addition, Liu indicates that non-linear digital storytelling might create collaborative learning environments [3]. Non-linear structures have also been shown to examine the subject in more detail, carefully considering different points of view [4].

Figma, a collaborative web application for interface design, has become a leading force in non-linear narrative development. Figma's motion capabilities and audience interactivity has encouraged explorations into how students might use it as a classroom presentation tool. As Figma gains popularity in professional settings, investigating how this technology could effectively support meaningful learning and presentation experiences in design education is worth exploring.

This paper researches the impact of linear and non-linear presentation methods using Canva and Figma software tools in a design history course. The course introduces students to the software and encourages them to experiment with linear and non-linear techniques of presenting the designers they study. Surveys administered to students at the middle and end of the semester assessed the impact of these tools on student learning and presenting experiences and knowledge outcomes.

2 METHOD

2.1 Participants

Participants included eighteen students from four design disciplines, graphic, user experience, gaming and industrial design. Nine females and nine males participated in the study. Participants were informed that the presentation software used to create, present, and disseminate their work would be switched for two class presentations, and their experience with the new tools would be evaluated. All participants were undergraduate students at Brigham Young University. Participants received no extra credit or compensation and could withdraw from the study at anytime.

2.2 Study One – Canva

Students are assigned to conduct research on assigned historical or contemporary designers and create a 10–15-minute class presentation that includes facts about the designer's life and training, images of their work, an explanation of their design philosophy, a video link if available, and examples of how the designer influenced contemporary design, as applicable.

Students were provided with a 10-page Canva Design template, as shown in Fig. 1, formatted for use on Instagram. Since January 2018, students have posted their presentations on the course's Instagram account, HistoryofProductDesign@BYU. The template, presentation content, and posting details are explained in a previous publication [5] and have evolved yearly to add clarity and structure.

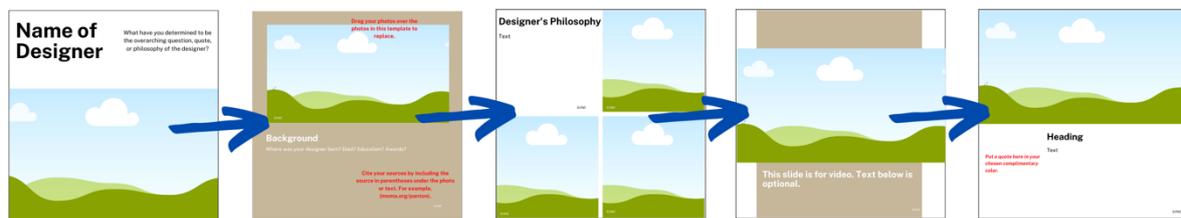


Figure 1. Linear Canva Template

The course utilizes a corporate Instagram account, allowing researchers and students access to Instagram's analytics tools which track total accounts reached, engagement, top cities and countries, quantified post engagement, and the audience's age and gender.

2.3 Study Two – Figma

The content expectations for study two were identical to those in study one. Most design students were moderately familiar with Canva as a simple-to-use presentation tool but were unaware of Figma as a presentation tool. Figma is optimized for prototyping web page interactions and allows for immersive, custom, non-linear presentations.

Two student research assistants worked for 20 hours creating a 3x3 square presentation template on Figma that students could copy and insert their designer's information in whatever order they chose. See the home grid in the centre of Figure 2.

The template structure encouraged interaction with their audience in a non-linear manner. Presenters could choose themselves or ask the class audience which content square they wanted to view on the grid, thus giving the audience power to experience the information based on their chosen interests [6]. Figma also allows greater slide customization. In contrast to Canva, Figma does not constrain students on the number of images used on a single slide through the use of carousels. Figma's ability to present multiple levels of motion also adds a non-linear element to the presentations. Incorporating Figma in the classroom as a presentation tool allowed the audience to engage personally with the presenter and the information.

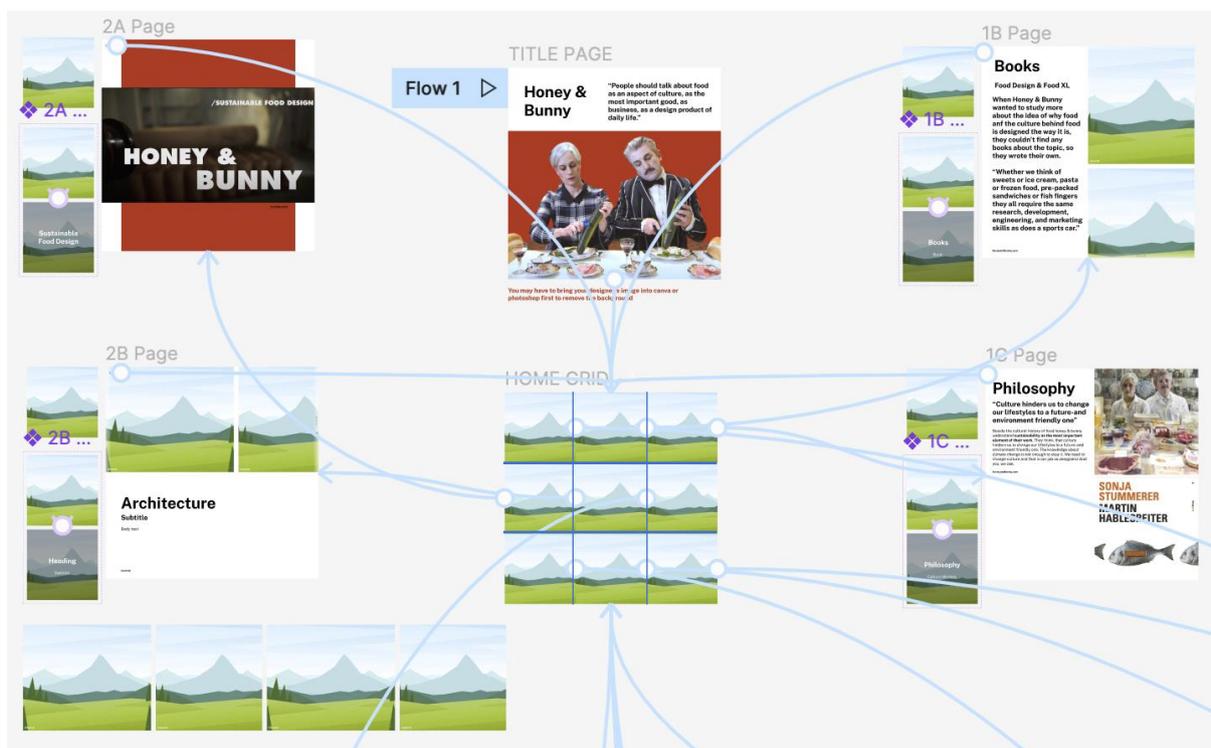


Figure 2. Non-Linear Figma Template

2.4 Procedure

Students researched, built, and presented five different presentations roughly two weeks apart over the semester. The first two presentations were created in Canva and posted on the class's Instagram (Study 1). For the second two presentations, students learned the basics of Figma and posted the results on Instagram, which unfortunately does not enable non-linear presentations. However, students were encouraged to share their Figma presentation on their LinkedIn profile, thus allowing an external audience to experience their non-linear presentation experience.

For the fifth presentation, students presented in pairs and chose to present using Canva or Figma. Most students decided to use Figma instead of Canva for their final presentation.

Researchers administered a digital survey via Google Forms in the middle and at the end of the semester, which took about 15 minutes to complete.

2.4.1 Study One - Canva as an Educational Tool

Survey one reviewed the use of Canva as a presentation tool. Students were asked about their presentation creation experience, how familiar they were with the tool, the learning curve for Canva, the advantages and disadvantages of Canva over other linear software tools, and the effectiveness of the course template. It also explored how well the Canva based presentations helped them understand the design philosophies of the individuals studied.

2.4.2 Study Two - Figma as an Educational Tool

Survey two reviewed the use of Figma as a presentation tool. Students were asked about their previous experience with Figma and how easy it was to use as a presentation tool. Students were asked about the advantages and disadvantages Figma has over Canva or other presentation software and collaborative presentation creation with a peer. Students were asked for software and joint presentation recommendations for future classes.

2.5 Data Analysis

The results of the two surveys were assessed to understand the impact of the changes made and the overall influence of the course and its structure on the student learning experience.

3 RESULTS

The sections below will discuss the quantifiable data and shared comments on class presentation tools and material dissemination from the two surveys. Numeric responses are given based on either percentages or a 10-point scale.

3.1 Study One

When asked about learning how to use Canva, 87.5% of students said it was very easy, with 70% claiming ease of use as Canva's most significant advantage as a presentation tool. Students qualified that by saying Canva had readily available tools and accessories to design their presentations easily. Although students enjoyed how intuitive Canva was, most felt the tool restrained their creativity. One student stated, "Canva doesn't seem to have quite as much depth as could be useful once a basic understanding is acquired. I felt a possible discouragement from digging too deep for fear of finding the bottom of its capacity." Despite feeling creatively restrained, nearly 75% of students said they would use Canva as a presentation tool in the future, with 43.8% of students saying they would use it as their primary presentation tool.

Students were provided with a template to use for their Canva presentations. When asked what changes students would like to make to the template, the vast majority claimed that no changes needed to be made, with only 25% wishing they could have more creative liberty within the template guidelines. When asked whether or not the content instructions were helpful in framing and building their presentations, 68.8% of students believed the provided instructions were helpful.

The second portion of the survey addressed students' understanding and retention of the information from the presentations. When asked how well the linear (Canva) presentations helped students understand the design philosophy of the presented designers, students replied with an average of 7.9. When asked how much historical designer knowledge was retained, students answered with an average of 6.3. When students were asked what would improve the quality of the presentations so they would retain more knowledge, the majority said the presentations lacked classroom engagement. Some students claimed that linear storytelling deprived the class of engaging with the material and presenter. One student stated, "It feels like we are presenting the Instagram posts rather than using the slides to help tell a story. Engaging stories need pacing, and our presentations feel a little one-speed and usually only invite us to think when the discussion opens afterwards." Other minor improvements students suggested were two-person presentations, building diagrams connecting the designers, and a less strict presentation format.

3.2 Study Two

In contrast to Survey 1, when asked about learning how to use Figma, 50% of students said it was difficult, with 61% claiming the steep learning curve as Figma's most significant disadvantage as a presentation tool. Students qualified this by saying that if they were not given a presentation template, they would have been lost when trying to use Figma's different tools. Although some students struggled with learning Figma, 93% said they would use Figma as a presentation tool in the future, with 16.7% claiming they would use it as their primary tool. When asked about the advantages of Figma, several students noted that they enjoyed the motion abilities. One student claimed they liked the idea that one slide is not stagnant, which causes the presentation to be viewed as a never-ending story. Students claimed the interactive elements made each presentation more lively and engaging. One student stated that Figma allows for more diversity in what you can do, which makes it stand out as a platform in comparison to linear presentation methods such as PowerPoint.

The second portion of the survey addressed students' understanding and retention of the information from the presentations and working alongside a partner. When asked how well the Figma presentations helped students understand the design philosophy of the presented designers, students replied with an average of 8.3.

When asked how students would rate working alongside a partner when presenting, students answered with an average of 6.8. Most students preferred working with a partner because it took less time, was fun to work with someone, helped mitigate procrastination, and could dive deeper into specific topics because they were delegated between the two students. Some adverse effects of group presentations included disagreements on presenting, lack of proper communication and coordination, and unbalanced delegation of tasks.

3.3 Canva vs Figma Preference

When asked what presentation method students would recommend for next year's group, 50% said Figma, 11.2% said Canva, and 38.9% said both. Many students believe Figma should be the main presentation software next year because they believe it is a more valuable tool to learn for future design careers. Several students claimed they would also like Figma to be the sole presentation method because they would understand it better if it were solely used during the semester. Students also argued that Canva has an easy learning curve, making it unnecessary to learn in a classroom setting when it could be learned quickly outside the classroom. The students who believe Canva should be the primary presentation tool argued that Figma is not nearly as compatible with social platforms. While Figma is an excellent tool for design, it is not the best for presentations. Some students also preferred Canva because it is an easy tool to use so that they could focus on the content of the presentations over the design. The students who liked both presentation methods argued that comparing and contrasting the programs is valuable and helpful for the future.

4 DISCUSSION

4.1 Canva

Canva was an easy but limiting platform for students to use as a presentation method. Most design students were familiar with Canva and found its capabilities limiting. While the ease of use appealed to students, they felt restricted creatively with the provided template and believed the capabilities weren't as engaging when presenting to the class. These results affirmed a need for more customization and engaging features for the students to tell their stories. Students yearned to tell a story based on their research and use their existing design skills to design their story further. Although students felt the template was sometimes limiting, they enjoyed the ease of transferring content from Canva to Instagram. The linear storytelling of Canva proved to be more compatible with current social media layouts.

4.2 Figma

Transferring the class to Figma as a presentation tool proved to be a steeper learning curve. Most participants responded that learning the new software was very challenging as a presentation tool (study 2); however, Figma served them in crafting more engaging stories. While both Canva and Figma had pre-made templates designed for the students, Figma allowed students to be more creative in crafting presentations due to its personalization capabilities and moving parts which assisted in the storytelling process. Figma became the class's preferred method because they valued learning new software with moving features. Figma's non-linear style also proved to help students retain information better. Figma rated higher than Canva in understanding the designer and the designer's philosophies. One criticism of the Figma presentations was that there was a lost opportunity by not having students use their phones to interact with the presentation as it was being presented.

4.3 Future Class Use

The survey responses led to a deeper understanding of improvements that could be made in a future course. A point brought up on numerous occasions was that the software used should depend on the desired outcome of the course. If the class is structured in hopes that students will learn useful software for their careers, Figma may be the better option. However, if the presentations are focused on the content as opposed to the presentation method, Canva may be the better option due to its ease of use. One criticism of this course is that while students valued the templates for design purposes, they believed the content instructions needed alterations. An alteration could include providing a list of potential topics to cover in the presentations but allowing students to determine which topics best suit the narrative for their designer.

Lastly, most students preferred working alongside a partner and mentioned that it allowed them to focus on specific aspects of designers in depth. Collaborative presentations also encouraged students to speak with another individual about their designer, resulting in greater knowledge retention from that particular presentation. This outcome informs that the future class structure should consider more collaborative opportunities.

5 CONCLUSION

Overall, the outcome of the course can be expressed through two student survey results:

"Figma offers much more control over movement and presentation flow; the presentation can adapt as it's given, where linear presenting must be presented in the planned order."

"If you want 'presentations' and posts on Instagram, they will turn out much nicer when made in Canva. The things that make Figma great for engagement make them horrible Instagram posts (no scrolling or interactions makes the information inaccessible in jpeg form), and the things that make good Instagram posts make for boring Figma prototypes (no scrolling/interactions - you might as well use Canva)."

Based on our analysis of the classroom surveys, disrupting the current linear based standards for design presentation tools, like Canva, Adobe, or PowerPoint-type products, with non-linear methods using tools like Figma enhances student learning experiences. This replicates Maleki's findings that class attention, growth, motivation and participation were greater using non-linear storytelling over linear methods when teaching English for medicine [7]. As content dissemination methods continue to evolve within the design world, the culture and methods of classroom presentations will eventually reflect those changes.

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