

## **THE DESIGN SKETCHBOOK AS AN EXTENSION OF THE LEARNING PROCESS**

### **AUTHORS**

Anne Porterfield  
North Carolina State University

Janie Woodbridge  
North Carolina State University

Corresponding Author: Anne Porterfield, [japorter@ncsu.edu](mailto:japorter@ncsu.edu)

### **KEYWORDS**

Design Process, Fashion Design, Sketchbook, SoTL

### **ABSTRACT**

Fashion designers have long relied on the medium of the sketchbook to incubate, record, and communicate design processes and ideas. While students studying design are commonly asked to use a sketchbook, there is not a standard way of presenting this important practice in the design studio classroom. There is a need for greater understanding of how students approach this learning, and how instructors can guide their acquisition of the associated skills. This in-process study, grounded in the scholarship of teaching and learning (SOTL) employs content analysis, qualitative questionnaires, and interviews to understand this phenomenon from the student perspective.

The study arose from observations by the researchers in the first-year design studio they co-teach. Participants are recruited from students who have completed that course and are in either the second or the fourth year of the program to capture insights at two key levels of the learning process. Research questions are framed around the learning process and the student experience.

Currently, 33 questionnaires have been completed by participants. These early questionnaire results indicate that participants' confidence around working in a design sketchbook increased over the first year of study, and many participants continue to use a sketchbook in design projects regardless of course requirements. Participants agreed that a design sketchbook is an essential tool for processing their thoughts in design work. Additionally, participants reported strong interest in hybrid (physical and digital) formats for design documentation.

The questionnaire will be distributed to participants over the next couple of years as new students enter the program and results will be analysed as new responses are received. Additional modes of data collection are in process, including interviews planned with fourth year students, and reflective content analysis of design assignments. While data collection is ongoing, results from the first stages of the research are already informing teaching practice.

### **INTRODUCTION**

For a fashion or textile designer, a sketchbook is a portable means of collecting the images, drawings, reflective writing, fabrics, trims, and other ephemera that help them proceed from inspiration through concept development

to creation of original products. The sketchbook is a visual documentation of the design process, showing how the designer interacts with both their thoughts and their environment in a complex dance of ideas as they fill the blank pages. Though highly personalized, a design sketchbook can be an integral tool in design collaboration as it can help communicate the designer's intention to partners and team members. There is a need for greater understanding of how students adopt the practice of using a sketchbook, and how instructors can guide their acquisition of the associated skills.

This ongoing research study was designed to capture the student experience of working with a design sketchbook in the context of design studio project work. The study employs qualitative methods, including a student questionnaire, interviews, and reflective content analysis of project assignments. The following sections outline the extant literature on the topic, the methods used, preliminary results, and next steps for the study.

## **LITERATURE REVIEW**

As they represent a largely organic and personal process, it is difficult to pinpoint when they first came into use, however the design sketchbook is a widely accepted tool for ideation and communication (Şener, 2014). Research around sketchbook use in education is typically driven by questions about how the sketchbook practice contributes to students' ability to generate and synthesize ideas (Nam and Sanders, 2021, McKinney and Dong, 2022). Researchers in both art and design education have discovered that student performance in the realm of sketchbook-keeping improved with specific guided assignments for drawing and reflection (Gilbert, 1998, Mckinney and Dong, 2022). Researchers have found that challenges in assessing student performance are rooted in the deeply personal nature of sketchbook practice (Parker, 2005). Prior research has also explored how students' individual strengths are reflected in how and for what purpose they use a sketchbook. For example, Gilbert (1998) noted that students who lack confidence in their visual communication (drawing) skills might show greater competency in the reflective writing aspects of sketchbook-keeping.

A few studies have examined how designers might make use of a digital or hybrid format sketchbook (O'Neil, 2013, Şener, 2014). The nature of the traditional hands-on sketchbook makes it difficult for some to imagine an effective transition to a digital format, however this question is an important one considering the increasing reliance on digital technology for design communication. Students who are working in a digital medium have difficulty translating that experience to a physical sketchbook format, so there is clearly room for understanding how the practiced can be adapted for a more fully digital process (Şener, 2014).

The primary method of data collection in all the above-mentioned studies involved student designers themselves as subjects. This is an effective approach. As students learn how to keep a sketchbook by doing it, teacher-researchers should study this process by talking to students. Review of the existing literature identified two clear gaps. No studies examined sketchbook skills acquisition over a four-year program, and, while some studies examined the question of a digital format, none looked at a hybrid digital/physical sketchbook format. This ongoing study will capture student insights into the sketchbook process at two key levels in a four-year design program and will examine the question of format including physical, digital, and hybrid approaches.

## **METHODOLOGY**

A qualitative approach has been selected for the study as being most appropriate for this emerging area of research (Merriam and Tisdell 2015). The research is centred in the scholarship of teaching and learning (SoTL), which enables instructors to explore research questions based on their tacit knowledge and experience in the classroom (Chick, 2018). The two researchers are co-instructors of the first-year design studio in a fashion and textile design program, and the research emerged from observations of student performance in that class. Student participants are drawn from the third and fourth years of the program, to capture insights at two key levels of the learning process. Assignments relating to documentary sketchbook-keeping are integral to courses at each level of this program. Research

questions arising from review of literature and reflective teaching observations are as follows:

RQ1. How do students understand their own progress with sketchbook-keeping from year one to their current stage?

RQ2. What factors do students identify as influencing their sketchbook-keeping progress?

RQ3. How do students currently engage in this practice?

RQ4. What benefits and challenges to students identify with respect to each sketchbook format? (physical, digital, and hybrid)

Three modes of data collection were planned to address these questions. An anonymous questionnaire was designed to capture a baseline understanding of participants views on classroom sketchbook assignments and their preferences and experience with sketchbook-keeping. To better understand student opinions and experiences, interviews will be conducted with fourth-year students. To further understand how the data relate to their teaching practice, researchers are analysing documents detailing assignments and guidelines for student sketchbooks at all program levels.

## **CURRENT PROJECT STATUS AND PRELIMINARY FINDINGS**

To date 33 students have participated in the anonymous questionnaire. The researchers plan to deploy the questionnaire over the next few years as new students move through the program to reach a goal of 60 participants. In ongoing data collection, interviews are being scheduled with 4th year students. In addition, design assignment briefs dating from 2015 to the current semester ( $n > 10$ ) are being analysed to identify how expectations regarding sketchbook use are being communicated. Questionnaire results to date are outlined below.

The anonymous questionnaire consists of 11 items that were designed to capture student perspectives on both their personal use of a design sketchbook and their evaluation of how classroom assignments in the first-year studio contributed to their understanding of the sketchbook as a tool. The questions also address format preferences (physical, digital, hybrid), and participants are asked about their experience using a design sketchbook prior to attending the university, and to specify their current year in the program.

### **Previous Sketchbook Use and Classroom Experience**

Sixteen participants reported that the first-year studio class was their first experience keeping a design sketchbook. Twelve reported that they had worked with a design sketchbook for personal projects, and ten reported that they had used a sketchbook as part of a studio class assignment.

In the First-Year design studio (FTD 104-105), students are expected to document their design project work through drawing, photos, reflective writing, sampling, and prototyping. Overall questionnaire responses showed that participants felt successful in meeting instructor expectations for how they show and document their process in a design sketchbook. Responses also indicated that participants felt their confidence in this area increased over the first year in the program (Figure 1, below). For the most part participants expressed that requirements for their use of a design sketchbook were clear and easy to understand.

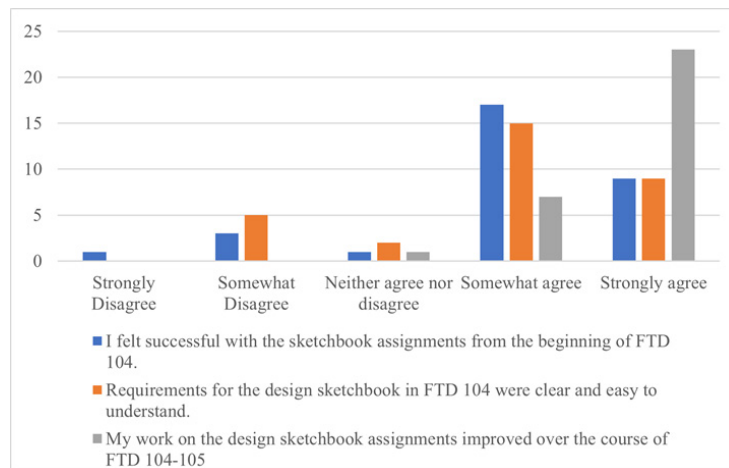


Figure 1, Participant Experience of Studio Sketchbook Assignments

### Format Preference

Participants in the study initially work in a physical sketchbook for studio assignments. As digital technology is incorporated into their projects, they transition to a hybrid format, working back and forth between a physical book and digital platforms. By the end of the first program year, what they turn in for evaluation is a digital file, which may incorporate some hybrid elements. Questionnaire responses suggested that participants felt good about moving to a partially digital format, however some indicated that the digital format presented challenges (Figure 2).

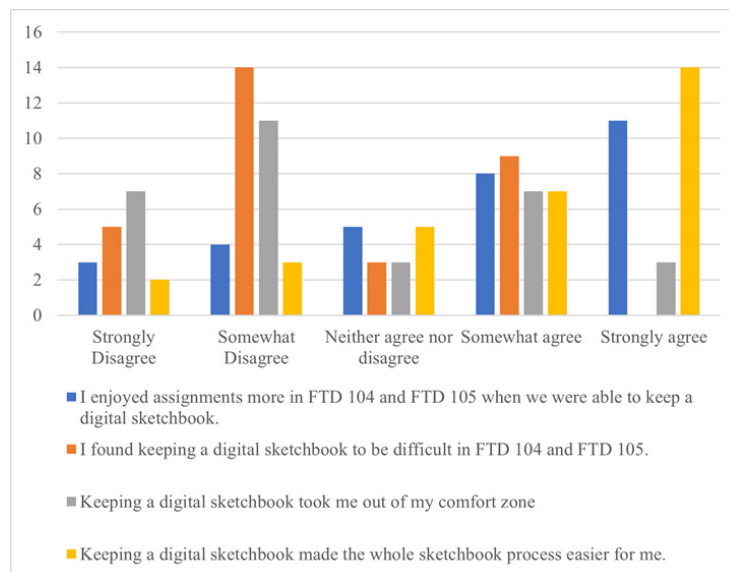


Figure 2, Participant Experience with Studio Sketchbook Format

We asked participants for their format preference when working in a sketchbook for class assignments. Participants indicated a preference for a hybrid format, incorporating both physical and digital elements (Figure 3).

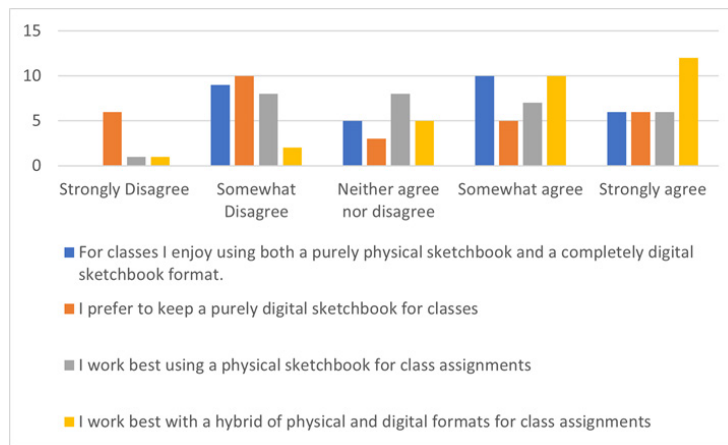


Figure 3, Studio Sketchbook Format Preference

### Personal Use

Twenty-one participants indicated that they keep a sketchbook for class projects even when it is not required, and for personal design projects. As shown in Figure 4, below, participants indicated a preference for a hybrid format in their personal sketchbook use (Figure 4).

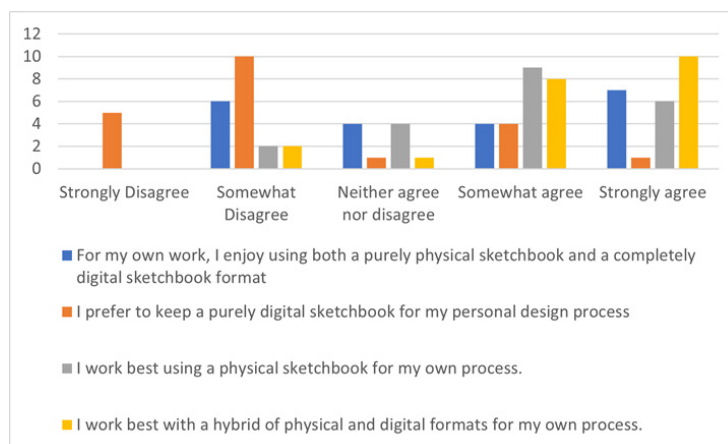


Figure 4, Personal Sketchbook Format Preference

We asked participants to select phrases that complete the phrase “to me, a sketchbook...” to understand how they use and define a sketchbook. Participants indicated that their sketchbooks include varied categories of art and artefacts related to the design process. They agreed that the sketchbook is a necessary tool for processing ideas and that it helps in the ideation and planning stages. A little over half indicated that the sketchbook is a necessary tool for communicating their ideas, but 16 agreed that the sketchbook can show other people how they come up with ideas (Figure 5).

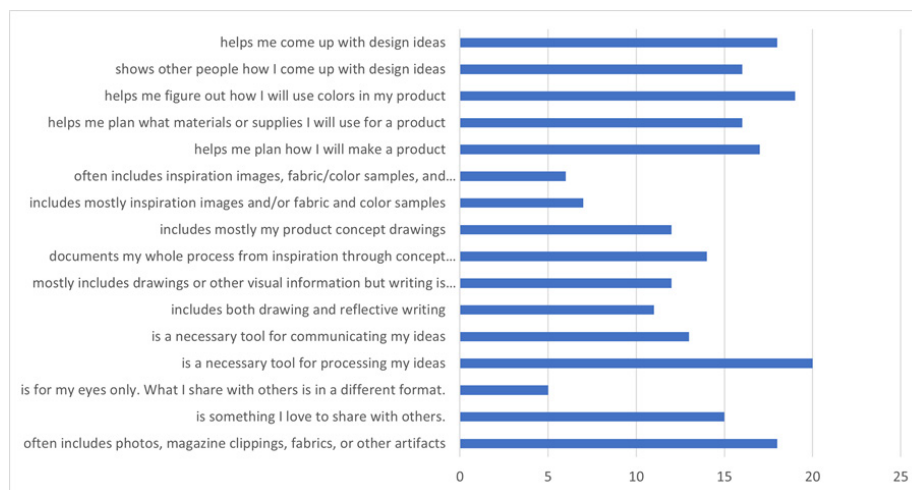


Figure 5, How Participants Define a Sketchbook

## DISCUSSION

In this section we discuss observations based on the data captured to date with implications for our future research direction. The data described above represents about half of our intended sample, so we will continue collecting questionnaire responses as new students move through the program. As we have not reached what we feel is a saturation level with this research, we are not able to generalize based on these results, however we can view participant responses through the lens of our own reflective teaching practice and make plans for future classroom implementation and ongoing research.

### Previous use and classroom experience

The number of students who reported they had not previously used a sketchbook (n=16) made us reflect on how we introduce this topic in the studio classroom. While we do ask students if they use a sketchbook, we reflected that we do not spend a lot of time talking about what their prior experience looks like. We are looking at building activities that can enable students to show us how they organize their ideas before we try to get them to do that in a prescribed way.

We were pleased to note that for the most part, students feel our instructions are clear and easy to follow, but we would like those numbers to be higher, and more definitive (with more “strongly agree” responses). This insight is guiding our analysis of past and current project assignments to find opportunities for clarification.

### Format preference

We were not surprised to note participant preference for showing their design process in a digital format, however, it was interesting to note the number of participants who expressed a preference for working in hybrid format over one that is purely digital. Based on responses shown in Figure 2 to the statements I found keeping a digital sketchbook to be difficult (nine somewhat agree) and Keeping a digital sketchbook took me out of my comfort zone (seven somewhat agree), we would like to explore the contexts in which students are more comfortable working in a physical book over a digital platform so that we can incorporate flexibility in our expectations as well as opportunities to practice new tools (digital and hands-on) in guided exercises.

### Personal use

Finally, we were excited to see the complexity of participants’ definition of what a sketchbook is and what they can do with one, particularly in the context of their personal design practice. We want to initiate a more active dialog with

students about what they discover as they dive into their inspiration and document their design process, how the sketchbook helps, and more importantly, how they can take advantage of different formats and tools to make the best use of the sketchbook as a tool.

## CONCLUSION

Our next steps will include interviewing fourth-year students to obtain more in-depth insights, analysing project briefs, reflecting on our teaching practice, and collecting additional questionnaire responses. The responses we have received so far have helped us to centre our reflective teaching practice on the students and their experience rather than focusing solely on outcomes, prompting us to make space for discussion and dialog around some of the more abstract concepts that sketchbook-keeping represents. This re-framing is an expected outcome of the SoTL practice, and we look forward to refining our perspective even further as we continue the research.

## REFERENCES

- Chick, Nancy L. (2018). *SoTL in Action: Illuminating Critical Moments of Practice*. Sterling, Virginia: Routledge (New Pedagogies and Practices for Teaching in Higher Education Series).
- Gilbert, J. (1998). Legitimising sketchbooks as a research tool in an academic setting. *Journal of art and design education*, 17 (3), pp. 255-266. [Link](#)
- McKinney, E., and Dong, H. (2022). Fashion design students' self-evaluation of usage, benefits, and attitudes toward using design research sketchbook skills: A scaffolded pedagogical approach. *International journal of fashion design, technology and education*. 15 (3), pp.407-417. <https://doi.org/10.1080/17543266.2022.2078893>[Link](#)
- Merriam, S. B., and Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation*. Fourth Edition. San Francisco, CA: Jossey-Bass.
- Nam, C. and Sanders, E. A. (2021). Pedagogical guidance to educators in teaching sneaker design: The effectiveness of sketchbook practice. *International journal of fashion design, technology and education*, 14(2), pp.194-204. <https://doi.org/10.1080/17543266.2021.1909661>[Link](#)
- Parker, J. (2005). A Consideration of the Relationship Between Creativity and Approaches to Learning in Art and Design. *The international journal of art and design education*, 24(2) pp. 186-198.
- Şener, B. (2014). Investigating the feasibility of digitally created industrial design sketchbooks. *Mimarlık Fakültesi dergisi*, 31(1), 139-156. <https://doi.org/10.4305/METU.JFA.2014.1.7>[Link](#)