Sustainability in the Global Fashion Industry:

Insights into Experience, Learning, and the Impact of COVID-19

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Abstract

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This study examines how independent fashion designers develop, sustain, and operationalize sustainability-oriented practices over time. While existing research has extensively documented the environmental and structural challenges of the global fashion industry, less attention has been given to the lived experiences of designers who attempt to enact sustainability within these constraints. This study addresses that gap by investigating how designers come to adopt sustainability-oriented approaches, how their practices are shaped by ongoing learning, and how they navigate persistent structural tensions.

Guided by adult learning theory, and drawing primarily on experiential learning as an interpretive lens, this qualitative study explores sustainability as an emergent, practice-based learning process rather than a fixed outcome. Data were collected through a multi-phase design comprising an initial survey (N=58), Critical Incident Questionnaires (N=32), and in-depth semi-structured interviews (N=18). Two focus group sessions were subsequently conducted with a subset of interview participants to triangulate and validate emergent interpretations, followed by targeted follow-up contacts with five participants to examine adaptive responses to evolving trade and supply-chain conditions. Participants were selected through purposive sampling based on sustained engagement in sustainability-oriented fashion practice. Data were analyzed using iterative, inductive coding procedures supported by cross-case comparison.

Findings indicate that sustainability-oriented practice develops through a trajectory shaped by cumulative experiences rather than single transformative events. Designers described

two primary entry pathways: early value-aligned entry, in which sustainability was embedded in the founding logic of practice prior to professional entry, and later shifts prompted by professional or ethical dilemmas. Sustaining these commitments required ongoing negotiation with structural constraints, including supply chain limitations, cost pressures, and industry norms. Social participation within communities of practice played a critical role in reinforcing sustainability-oriented identities, while also revealing the limits of collective support in addressing systemic barriers.

The study also identifies the development of specific knowledge and skills—such as material literacy, supply chain navigation, and strategic communication—as essential to operationalizing sustainability commitments. The COVID-19 pandemic, which constituted an explicit fourth research question in the study's formal design, transformed the phenomenon under study in real time—intensifying existing structural pressures, exposing the conditionality of sustainability commitments, and ultimately functioning as a structural stress test whose effects extended well beyond the pandemic itself. Subsequent disruptions, including global supply chain instability and tariff volatility, functioned not as isolated turning points but as amplifiers of existing tensions, requiring designers to adapt while maintaining core commitments.

This study contributes to adult learning scholarship in two interconnected ways. First, it reconceptualizes sustainability in professional practice not as a body of content to be transmitted but as a practice to be developed—one that requires pedagogical designs oriented toward trade-off navigation, reflective formation, and relational infrastructure rather than knowledge transfer alone. Second, it proposes flexibility, reorganization, recalibration, and reinvention as the four constitutive capacities of complexity learning under sustained structural disruption—a framework with implications for how adult education prepares practitioners across professional

domains where stable mastery is no longer the appropriate developmental horizon. It also extends sustainability scholarship in fashion by foregrounding the experiential and developmental dimensions of practice, offering insights relevant to educators, industry stakeholders, and designers seeking to navigate and sustain ethical commitments within complex systems.

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Dedication

To my parents,
who made my becoming possible,
to Nico,
who made the journey bearable,
and to Rhea,
who made it meaningful.

Chapter 1: Introduction

Sustainable fashion is an umbrella term that encompasses products, processes, activities, and actors—including policymakers, brands, and consumers—who seek to build a fashion system grounded in carbon reduction, social justice, animal welfare, and ecological integrity (Peng, 2021). Rather than referring only to textiles or finished garments, sustainable fashion concerns the entire fashion system: the interdependent social, cultural, ecological, and financial relationships that shape how clothing is designed, produced, distributed, and consumed (Fletcher & Grose, 2012). The scope of sustainability varies among designers and may include material choices, production methods, circular strategies, or combinations thereof. Across these variations, designers who position their work as "sustainable" articulate both a philosophy of practice and a commitment to rethinking the fashion system.

In recent years, scholarship and industry reports have documented the significant environmental and social harms associated with mainstream fashion production and consumption, alongside growing consumer interest in ethical and sustainable alternatives. Much of this work has focused on fast fashion, environmental impact assessment, material innovation, and consumer behavior. Far less attention has been given to the designers who make the decisions that shape product lifecycles and determine the environmental and social consequences of the fashion system. Because an estimated 80% of a product's environmental impact is determined at the design stage (Ramani et al., 2010), understanding how designers come to think and act sustainably is central to transforming the fashion industry.

Understanding sustainable fashion as both a systemic challenge and a learning challenge requires grounding inquiry in its historical development. The following section traces the

evolution of the sustainable fashion movement, highlighting the environmental, cultural, and industry forces that have shaped contemporary understandings of sustainability.

History of Sustainable Fashion

The modern sustainable fashion movement is rooted in the environmental consciousness that emerged during the 1960s, when concerns about pollution, toxic waste, and ecological degradation gained visibility and political momentum. By the late 20th century, environmentalism expanded to address global issues such as ozone depletion, climate change, and the cumulative impacts of industrialization (Encyclopedia Britannica, 2019). The Brundtland Report (United Nations, 1987) provided a landmark definition of sustainable development, emphasizing the need to meet present needs without compromising the well-being of future generations.

The early 1990s marked a pivotal shift in the fashion sector. Following the 1992 United Nations Conference on Environment and Development, companies such as Patagonia and ESPRIT became early adopters of environmentally conscious production. Motivated by firsthand observations of environmental degradation, founders Yvon Chouinard and Doug Tompkins commissioned some of the first lifecycle assessments (LCAs) of textile fibers used in their products. LCAs provided a systematic method for evaluating environmental impacts from raw material extraction through end-of-life, influencing both internal decision-making and public communication of sustainability commitments (Environmental Protection Agency [EPA], 2010; Gettinger & Jones, 2016).

Throughout the 1990s and early 2000s, the sustainable fashion movement broadened significantly. Industry efforts emphasized improving material provenance, reducing chemical use, and increasing efficiency in fiber and fabric processing (Shalev, 2019). Simultaneously, a

growing research agenda began to take shape. Scholars such as Hethorn and Ulasewicz (2008) traced the emergence of sustainability-oriented design discourse, while others explored resource efficiency (Gardetti & Torres, 2013), design-led sustainable practice (Black, 2013), and critiques of growth-dependent fashion systems (Fletcher, 2016). Together, these strands formed the foundations of a field that is now both expansive and rapidly evolving.

Despite this growth, the role of designers—their learning, decision-making, and sustainability trajectories—remains underexamined. This gap underscores the importance of the present study and situates it within ongoing efforts to understand and reshape the fashion system toward ecological integrity and social responsibility.

Why Learning from Experience

Understanding sustainable fashion through the lens of learning is essential because sustainability is not merely a technical competency but a way of thinking, interpreting, and making decisions that develops over time. Adult learning theory provides a foundation for analyzing how designers construct sustainability-related knowledge and meaning. Knowles (1984) emphasizes that adults learn most effectively when they can draw on prior experience, exercise autonomy, solve real-world problems, and apply learning immediately—all conditions inherent to fashion design practice.

Experiential Learning Theory further clarifies how designers might make sense of their experiences. Kolb (1984) conceptualizes learning as a cyclical process of concrete experience, reflective observation, abstract conceptualization, and active experimentation. Designers routinely move through this cycle as they test materials, interpret production outcomes, respond to market demands, and refine their processes. Boud et al. (1985) argue that experience alone does not produce learning; rather, learning emerges through reflection and re-evaluation of

action. This perspective is particularly relevant in fashion, where designers navigate competing demands, such as profitability, aesthetics, ethics, supply-chain constraints, requiring continuous sensemaking and adaptive decision-making.

Viewing sustainability as a learning process expands our understanding of how designers develop sustainability-oriented competencies, practices, and identities. Designers must learn to interpret environmental and social information, evaluate material and production choices, resolve ethical and financial trade-offs, and adapt to shifting industry conditions. Yet despite the alignment between designer practice and adult/experiential learning theory, the sustainable fashion literature has rarely examined sustainability as a learning problem. Most scholarship focuses on products, impacts, or consumers, leaving a gap in understanding how designers internalize sustainability as a mindset and enact it in practice.

The present study therefore positions designers' learning trajectories—not only their outcomes—as central to understanding how sustainable fashion practice develops and is maintained and supported over time.

Context and Background

As a three-trillion-dollar global industry, fashion exerts profound environmental, social, and economic impacts across every phase of the supply chain. The industry is responsible for significant greenhouse gas emissions, intensive water and chemical use, substantial textile waste, and widespread labor exploitation (Morgan et al., 2015). Fast fashion has accelerated cycles of production and consumption, leading to increased pollution, decreased garment longevity, and unprecedented volumes of discarded textiles. Globally, consumers now purchase 80 billion new garments annually, 400% more than two decades ago, and discard clothing at a rate that overwhelms existing waste systems (Bain, 2018; Cline, 2012).

Resource-intensive raw materials, such as cotton and leather, contribute to significant environmental degradation. Cotton cultivation accounts for a disproportionate share of global pesticide and insecticide use, while leather production remains linked to hazardous chemical exposure and heightened cancer risk among tannery workers (Climate Works Foundation & Quantis, 2018). Synthetic fibers shed microplastics into waterways during laundering, contributing to marine pollution. Meanwhile, dyeing and finishing are major contributors to water toxicity in garment-producing regions.

Labor conditions within the fashion system present additional challenges. An estimated 40 million garment workers, predominantly women, labor under unsafe, underpaid, and unregulated conditions (Lanigan, 2018). Factory disasters in Bangladesh, Pakistan, and China illustrate the persistent human cost of cost-driven production models (Rissanen, 2017). As global brands pursue speed and volume, supply-chain pressures often undermine worker rights and environmental safeguards.

Despite these realities, consumer interest in sustainability has grown. Reports indicate that a majority of consumers, especially millennials, prefer to purchase from brands committed to sustainability and corporate citizenship (Nielsen, 2015). Fast fashion brands have responded with “conscious collections,” recycling initiatives, and sustainability claims, though many remain superficial or contradictory—promoting more consumption under the banner of sustainability (Von Busch, 2020). The resulting landscape is rife with tension: between profit and principle, speed and stewardship, growth and ecological limits.

Although policymakers, brands, and consumers are key actors in the sustainable fashion ecosystem, designers occupy a uniquely influential position. They decide which materials enter the supply chain, which processes are prioritized, how products are constructed, and how brands

communicate values to consumers. Designers also mediate the tensions between aesthetic vision, commercial viability, environmental responsibility, and ethical commitments. Yet despite their centrality, designers' experiences, learning pathways, and sustainability decision-making processes remain largely unexplored in scholarly literature.

This context underscores the critical need for designer-centered research that examines not only what designers do, but how they learn, adapt, and sustain sustainability-oriented practice in the face of complex systemic pressures. Hence, this set of conditions led directly to the problem this study addressed.

Problem Statement

The global fashion apparel industry—responsible for roughly 8% of global greenhouse gas emissions and projected to increase its climate impact by nearly 50% by 2030 without decisive action (Climate Works Foundation & Quantis, 2018) —remains structurally unsustainable. Much of the existing research focuses on environmental metrics, consumer behavior, or corporate sustainability strategies (Cotton, 2018; Pedersen & Andersen, 2015; Ruppert-Stroescu et al., 2015). These studies illuminate the consequences of current practices and the potential of technological or organizational innovations, but they predominantly center systems and markets rather than the individuals who initiate and shape design decisions.

Designers occupy a pivotal, yet understudied position within the fashion system. Designers select materials, influence production processes, anticipate consumer desires, and articulate brand values (Laughlin, 2017; U.S. Bureau of Labor Statistics, 2019). Despite this significant influence, very little is known about how designers learn to think sustainably—how they develop the values, competencies, and practices that underlie sustainability-focused

decision-making; how they come to maintain these commitments over time; and how they navigate pressures, trade-offs, and systemic barriers in the contemporary fashion system.

This gap persists, even as consumer expectations heighten. The Nielsen Global Corporate Sustainability Report (Nielsen, 2015) found that 66% of global consumers, and 73% of millennials, prefer to purchase from sustainable brands, with 81% expecting visible commitments to ethical and environmental responsibility. Such expectations elevate the importance of designers' judgments and learning trajectories, because sustainability goals cannot be realized at scale without designers who can think, decide, and act sustainably at every stage of the design process.

Thus, although designers are among the most consequential actors in determining sustainability outcomes in fashion, the field lacks empirical insight into the lived experiences, learning pathways, and meaning-making processes that shape their sustainability commitments and practices. This absence limits educators, industry leaders, and policymakers who aim to cultivate sustainability-oriented mindsets, support sustainable business operations, and build learning environments capable of advancing meaningful change.

Purpose of the Study

The purpose of this field-based exploratory inquiry was to understand how sustainability-focused fashion designers develop, enact, and sustain sustainability-oriented mindsets and practices. This study sought to illuminate four dimensions of designers' sustainability development. First, it examined the experiences that prompted designers to adopt sustainability-focused thinking and practice. Second, it explored the factors that facilitated or impeded their ability to maintain sustainability-oriented business practices over time. Third, it investigated the knowledge, skills, and abilities designers needed to operate as sustainability-oriented

practitioners. Finally, it examined how designers responded to major disruptions, particularly COVID-19. Findings from this work are discussed throughout Chapters 4 and 5, including a set of actionable recommendations for educators, industry professionals, and policymakers.

Research Questions

Guided by adult learning theory and experiential learning theory, and informed by the complex social, cultural, ecological, and financial dimensions of sustainable fashion, this study was shaped by the following research questions:

1. What experiences motivate or prompt designers to adopt sustainability-focused thinking and practices?
2. In what ways do designers' lived and learned experiences facilitate or impede their sustainability practices?
3. What knowledge, skills, and abilities do designers report learning in order to operate as sustainability-focused practitioners, and what challenges or supports shape this learning?
4. How do sustainability-focused designers react, respond, and adapt to COVID-19 and its ongoing impacts?

These questions operationalized the central inquiry of the study: understanding how designers develop and sustain sustainable practice through experience, reflection, and learning.

The Approach

Addressing the research questions required a qualitative design capable of capturing the depth and complexity of designers' learning experiences and sustainability reasoning. This study employed a field-based descriptive exploratory design grounded in the qualitative tradition,

integrating purposeful sampling, in-depth interviews, demographic questionnaires, and field notes to ensure rich, contextualized data.

Sampling Strategy

Participants were selected through purposeful sampling to ensure information-rich cases aligned with the study's aims. Eligible designers met the following criteria: they operated sustainability-focused businesses through materials, processes, or both; had maintained at least five consecutive years of ongoing business operations sufficient to sustain continued professional practice; represented diverse design sectors including apparel, accessories, jewelry, and interiors; and were not required to hold formal education in sustainability. Eighteen designers were recruited through professional networks and design associations.

Data Collection

Data for this study were collected through three complementary qualitative instruments: a pre-interview questionnaire administered through Qualtrics, a Critical Incident Questionnaire (CIQ) conducted via recorded Zoom sessions, a semi-structured in-depth individual interview, and two supplementary focus groups conducted to deepen thematic triangulation and provide comparative context. Collectively, these multimodal data sources supported a robust exploration of designers' formative experiences, learning processes, and evolving sustainability practices.

Creswell (2013), Denzin and Lincoln (2013a, 2013b), and Marshall and Rossman (2015) emphasize that individual, in-depth interviews are foundational in qualitative inquiry because they allow researchers to understand how individuals interpret key experiences, assign meaning to events, and perceive causes and consequences. To support this depth and enhance the quality of data obtained, interviews in this study were preceded and supplemented by structured preparatory and reflective tools.

Recruitment Procedures

Participants were recruited through a study announcement distributed on professional platforms such as LinkedIn and through professional organizations, including the International Textile and Apparel Association (ITAA), AIGA: The Professional Association for Design, Fashion Group International (FGI), and the Council of Fashion Designers of America (CFDA). The call for participation outlined the purpose of the study, the anticipated time commitment, expectations for recorded conversations, and informed consent procedures. Interested individuals were directed to complete the pre-interview questionnaire.

Pre-Interview Questionnaire (Qualtrics)

The pre-interview questionnaire served two primary purposes: first, it screened participants to confirm they met inclusion criteria, particularly that they had operated a sustainability-focused design business for at least five years; and second, it sensitized participants to the study's core concepts—sustainability in fashion, sustainable thinking, sustainable practice, and sustainable growth and development.

The questionnaire included demographic items, business information, and open-ended reflections on early experiences with sustainability. Participants who met the criteria and agreed to continue were also invited to schedule both the CIQ session and the semi-structured interview.

Critical Incident Questionnaire (CIQ) via Zoom

Before the formal interview, participants completed a Critical Incident Questionnaire (CIQ) during a brief, recorded Zoom session. The CIQ prompts participants to identify a specific moment, project, or challenge that significantly influenced their sustainability thinking or transformed their design practice. Based on Brookfield's (1995) critical incident methodology, this exercise elicits a concrete, experience-based narrative that serves as a touchstone during the

in-depth interview. Conducting the CIQ via Zoom allowed for accurate capture of language, tone, and emotional nuance, including from participants who completed the CIQ but chose not to proceed to the formal interview.

Semi-Structured In-Depth Interview

Following the CIQ, each participant who agreed to be interviewed participated in a semi-structured, 60–90 minute interview conducted via Zoom. Prior to the interview, participants received the interview protocol, an expanded demographic questionnaire as needed, and the interview question guide (see Appendix D). Providing these materials in advance ensured shared definitions of sustainability-related terms, promoted thoughtful reflection, and fostered alignment between researcher and participant. Interviews explored designers' formative experiences, learning processes, challenges, facilitators, and the evolution of their sustainability practice.

Focus Groups

Two focus groups were conducted as a supplementary source of data and thematic triangulation. The purpose of these sessions was not to establish group consensus but to surface interactional dynamics, shared challenges, collective meaning-making, and contrasting perspectives among sustainability-oriented designers (Krueger & Casey, 2015). Each focus group was conducted via Zoom, audio- and video-recorded with participant consent, and facilitated using a semi-structured guide aligned with the central research questions. The researcher's role within sessions was that of an active listener and structured facilitator: participants were presented with provisional thematic summaries and invited to respond; the researcher posed prepared questions and follow-up probes but did not interject personal perspectives, share opinions, or contribute substantively to the content of discussion, in order to maintain the integrity of participant-generated dialogue.

While the individual designer remained the primary unit of analysis, the focus group discussions enriched the dataset by illuminating converging and diverging experiences across participants, reinforcing or challenging themes from individual interviews, and offering additional contextual insight into the broader sustainability landscape within the fashion industry.

Supplementary Data and Researcher Field Notes

Additional data sources—including demographic questionnaires, researcher field notes, and post-interview follow-up communications—were used to support analysis and triangulation. Field notes documented contextual information, such as participant affect, key moments of emphasis, emerging analytic memos, and researcher reflections. These supplementary sources aided in generating alternative or additional interpretations and strengthened the overall credibility and rigor of the study.

Analytic Approach

The study employed a convergent qualitative analytic strategy supported by clear decision rules. These included initial coding to identify recurring concepts, pattern coding to develop categories, thematic analysis to surface overarching themes across cases, cross-case analysis to examine similarities and differences, and integrative interpretation consistent with convergent design. Critically, the analytic approach was not solely inductive: the coding scheme was also deductively guided by the adult learning frameworks central to this study—andragogy, experiential learning theory, and transformative learning theory—ensuring that interpretive categories remained anchored in the relevant theoretical literature. These procedures were intended to ensure analytic transparency, methodological rigor, and alignment with qualitative research standards.

Theoretical Alignment

Adult learning theory—including andragogy, experiential learning theory, and transformative learning theory—guided the data collection and the interpretive lens, providing a framework for understanding how designers internalize sustainability and construct meaning through their experiences. This approach established the methodological foundation upon which the study's findings and interpretations were built.

Outcome of the Study

The study generated a nuanced understanding of how sustainability-focused fashion designers develop, enact, and sustain sustainability-oriented practices through their lived and learned experiences. Through convergent qualitative analysis, four interrelated categories of outcomes emerged.

First, the study illuminated the formative experiences, turning points, and learning moments that prompt designers to adopt sustainability-oriented mindsets, contributing to a deeper understanding of how designers make meaning from personal, professional, and environmental experiences. (See Chapter 4 for discussion of findings related to this outcome.)

Second, cross-case analysis revealed the conditions that support or impede sustainable practice, including material access, mentorship, supply-chain limitations, economic pressures, community influences, and personal values. These findings demonstrated the systemic and experiential factors that shape sustainable decision-making. (See Chapter 4 for findings related to this outcome.)

Third, the study identified the competencies designers must learn to practice sustainably—for example, material literacy, ethical sourcing, strategic problem-solving, communication, and adaptive business planning—and showed how these competencies

developed and were supported through experiential learning. (See Chapter 4 for findings related to this outcome.)

Fourth, the research examined how designers navigated disruptions such as COVID-19, revealing strategies of adaptation, resilience, and reorientation that informed long-term sustainability practice. (See the Challenges section of Chapter 4.)

An Emergent Conceptual Framework and Actionable Recommendations

By integrating experiential learning theory with empirical findings, the study produced an emergent conceptual framework that aids in explaining how sustainable designer development occurs over time. (See Chapter 5 for discussion of the emergent conceptual framework.) The results informed academics, industry leaders, and policymakers seeking to strengthen sustainability education in design programs, cultivate sustainability-oriented designers, and develop supportive organizational and systemic structures. These recommendations translate the study's insights into practical guidance for education, industry, and policy contexts. (See Chapter 5 for discussion of implications and recommendations.)

Assumptions

This study was framed by six interconnected assumptions that shaped both data collection and interpretation. These assumptions are revisited in the final chapter.

First, sustainability is understood as a learned mindset rather than an inherent disposition: designers must consciously develop sustainability-oriented awareness, values, and habits of mind. Second, learning is shaped by experience, and designers' sustainability practices arise from both formal and informal learning, including education, mentorship, lived experience, and industry challenges. Third, sustainable practice is influenced by systemic factors; designers operate within economic, organizational, and cultural structures that may enable or constrain

their choices. Fourth, sustainability is often adopted superficially in branding and institutional narratives, sometimes serving as rhetoric rather than embedded practice (Da Giau et al., 2016). Fifth, sustainability is dynamic and evolving: designers' interpretations and practices shift over time as they encounter new information, contexts, and global events. Sixth, and foundationally, this study assumed that designers are capable of accurately reflecting on and recounting their own learning trajectories and sustainability practices—that hearing directly from practitioners is both necessary and epistemically valid, and that their firsthand accounts constitute credible sources of knowledge.

The Researcher

The researcher brings more than 25 years of experience spanning the global fashion system as a designer, working artist, educator, administrator, mentor, and sustainability-focused consultant. These intertwined experiences shape the interpretive lens through which the study is approached and require continual reflexivity to ensure analytic integrity.

The researcher's earliest memories of fashion and material stewardship come from her mother, whose closet was a small but extraordinary archive of exquisitely tailored garments made from cotton, silk, wool, and other natural fibers. As a child, the researcher would sneak into this closet to try on clothing, captivated not only by their beauty but by their enduring quality. As an adult—by then taller than her mother—she was invited to "shop" in that same closet, selecting garments that had remained pristine and timeless for decades. Her mother's skill as a knitter and seamstress further nurtured a deep respect for materials: sweaters were unraveled and reknit, fabric scraps were repurposed, and nothing was discarded unnecessarily. Recycling, reducing waste, and giving materials new life were everyday practices long before the researcher encountered the language of sustainability.

These formative experiences guided the researcher toward a creative life rooted in fine arts, textile experimentation, and apparel design. Over 25 years, she has worked across multiple continents and sectors as a designer and quality controller, including during the World Trade Organization's global Apparel Quota System (1995–2005). Witnessing firsthand the transition from quota-regulated production to the rapid proliferation of cheap, disposable clothing profoundly shaped her understanding of waste, excess, and the systemic pressures driving unsustainable industry behaviors. Her own design and studio practices—built on recycled fibers, repurposed textiles, natural materials, and low-impact construction processes—emerged in response to these contradictions.

For more than a decade, the researcher served in higher education as a scholar-practitioner and later as an administrator overseeing a satellite campus within one of the largest public university systems. In her pedagogy, sustainability was central. Students explored zero-waste patternmaking, upcycling, natural dyes, and critical reflection on the environmental and ethical consequences of design decisions. Yet the persistent gap between educational ideals and industry realities raised compelling questions: How do designers develop sustainable mindsets? What experiences shape their practices? What supports or obstructs their ability to remain committed to sustainability in a commercial environment that often rewards the opposite?

The researcher's mentorship roles, including her work as a Supima Design Competition mentor guiding emerging designers—among them competition winners—reinforced these questions. Supporting students through iterative creative decision-making, technical problem-solving, and the emotional and professional pressures of high-stakes design work provided insight into how accountability, community, and structured reflection cultivate sustainable thinking.

Currently, as President and Co-Founder of ORASIS Consulting Corp., the researcher partners with clients across fashion, higher education, and finance to integrate sustainability into creative strategy, organizational learning, and operational systems. This consulting work provides a vantage point that bridges individual designer experiences with institutional and structural realities, revealing sustainability as simultaneously a personal ethic, a professional practice, and a systems-level challenge.

These personal, professional, pedagogical, and consulting experiences inevitably informed—and potentially influence—the researcher's assumptions, sensitivities, and interpretations. To ensure transparency, credibility, and trustworthiness, the researcher engaged in ongoing reflexive memoing, documentation of analytic decisions, and disciplined attention to how positionality shapes meaning-making throughout the research process.

Rationale and Significance

Sustainable fashion and its development represent an emerging and continually evolving domain within the global fashion system. Although the term "sustainable fashion" has gained widespread visibility—appearing in brand philosophies, production rhetoric, and academic discourse—its definitions remain contested and fluid. What is broadly agreed upon, however, is that sustainability is essential for the future of the industry and for global ecological well-being. Sustainable fashion is not merely a product category or trend; it is a way of thinking and a set of practices that encompass design processes, supply chain strategies, material choices, and consumption behaviors.

Since the release of the United Nations' *Our Common Future* report (1987), the environmental consequences of human activity have intensified global attention to sustainability across all industries (WTVOX, 2018). Fashion, one of the world's most resource-intensive and

waste-producing sectors, has been compelled to respond. The researcher maintains that sustainability is not only an opportunity but a necessity, and that the long-term viability of fashion depends on embedding sustainability at every level of practice, meaning-making, and decision-making.

Although absolute sustainability may be unachievable in a dynamic natural world, more sustainable systems can meaningfully engage both our egoistic and altruistic needs. They can empower consumers and makers alike by fostering more intentional choices, deeper fulfillment, and a clearer relationship between design, production, and planetary impact. Despite increasing attention to supply chains, environmental assessments, consumer behavior, and corporate responsibility, the literature consistently underexamines the individuals whose decisions shape environmental outcomes within the fashion system: designers. This study addressed this critical gap by centering designers' lived experiences, learning pathways, and sustainability practices. Its significance spans five interconnected dimensions.

First, in terms of designer-centered sustainability research, the study reframes sustainable fashion scholarship by foregrounding the designer as a central agent in shaping environmental and social outcomes. By examining how designers develop, maintain, and interpret sustainability commitments, the research illuminates an understudied but high-impact dimension of the fashion system. Second, with respect to the advancement of adult and experiential learning theory, the research extends adult learning, experiential learning, and reflective practice theories into a professional context rarely examined through these lenses. Specifically, it reconceptualizes sustainability as a practice to be developed rather than content to be transmitted, and proposes flexibility, reorganization, recalibration, and reinvention as the constitutive capacities of complexity learning under sustained structural disruption — contributions with implications

beyond sustainable fashion for any professional domain where disruption is continuous rather than episodic. Third, the findings informed recommendations for curricula, pedagogical strategies, mentorship models, and organizational interventions aimed at strengthening designers' sustainability competencies. These insights can guide educators, design schools, and professional development programs in cultivating sustainable thinking and practice. Fourth, regarding policy and systems relevance, the study highlights systemic barriers and facilitators—such as production pressures, sourcing limitations, market expectations, and regulatory gaps—that shape designers' sustainability journeys, offering insights that may support policymakers and industry leaders in developing more effective sustainability frameworks. Fifth, by examining how sustainability-oriented designers navigate a complex and often contradictory global industry, the research contributes to broader conversations about transforming fashion toward ecological integrity, ethical responsibility, and long-term resilience.

Collectively, the rationale and significance of this study underscore the value of centering designers' experiences as a site of transformative potential. Understanding how designers learn, evolve, and sustain their commitments offers a pathway toward reimagining the fashion system—one grounded in care, creativity, and responsible stewardship.

Definition of Key Terms

To ensure conceptual clarity and consistent interpretation throughout this study, the following key terms are defined as they are used in the context of sustainable fashion, adult and experiential learning, and qualitative inquiry. Definitions reflect scholarly, industry, and methodological usage relevant to the study's purpose, design, and analytic approach.

Adult Learning / Andragogy—A theory of learning that emphasizes adults' need for autonomy, relevance, and experiential grounding. Adults learn most effectively when they draw

upon prior experience, solve real-world problems, and apply learning immediately (Knowles, 1984).

Agency—The capacity of designers to make intentional, values-driven decisions within cultural, structural, or organizational constraints. Agency shapes how designers interpret sustainability and take action in practice.

Circular Economy—An economic and production model designed to eliminate waste and maximize resource use by keeping materials and products in circulation through reuse, repair, remanufacturing, and recycling. In fashion, circularity challenges the linear take–make–waste model.

Circularity—Design and business strategies intended to maintain materials and products at their highest value for as long as possible through closed-loop or regenerative systems.

Consumption Behavior—The patterns, motivations, and psychological processes that guide consumers' purchasing, use, and disposal of goods. In fashion, consumption behavior is shaped by identity, culture, marketing, and emotional drivers.

Corporate Social Responsibility (CSR) —A business approach integrating ethical, social, and environmental considerations into operations, reporting, and stakeholder engagement. In fashion, CSR initiatives often address sustainability, labor conditions, and transparency.

COVID-19 Disruption—the set of economic, material, logistical, and creative challenges introduced by the COVID-19 pandemic that impacted designers' sustainability practices, business operations, and adaptive strategies.

Design—The intentional conceptualization and development of objects, systems, or experiences. In fashion, design encompasses ideation, material selection, construction techniques, and lifecycle decisions.

Environmental Impact—The ecological consequences of human activities, including pollution, greenhouse gas emissions, biodiversity loss, and waste generation. In fashion, environmental impacts occur across the entire product lifecycle.

Ethical Labor—Labor practices that ensure fair wages, safe working conditions, reasonable hours, freedom of association, and the absence of forced or child labor. Ethical labor is a key dimension of sustainable fashion.

Experiential Learning—A learning theory that posits learning occurs through a cycle of concrete experience, reflection, conceptualization, and experimentation (Boud et al., 1985; Kolb, 1984).

Fashion Designer—A practitioner who conceptualizes and develops apparel, accessories, footwear, or related products and whose decisions substantially influence environmental and social outcomes across the fashion system.

Fast Fashion—A production and retail model characterized by rapid trend cycles, high-volume manufacturing, low-cost garments, and accelerated consumption. Fast fashion contributes to overproduction, waste, and labor exploitation.

Learning Trajectory—The sequence of experiences, reflections, decisions, and adaptations through which designers develop sustainability-related competencies and professional identities.

Life-Cycle Assessment (LCA) —A method for evaluating environmental impacts across all stages of a product's life—from raw material extraction to end-of-life—informing sustainable material and process decisions (EPA, 2010).

Microfibers / Microplastic Pollution—Tiny synthetic fibers, shed during garment washing, that enter waterways and contribute to marine pollution. Microfibers persist in ecosystems and pose health risks.

Natural Fibers—Fibers derived from plant or animal sources (e.g., cotton, wool, silk). While often considered environmentally preferable, natural fibers may still involve significant ecological impacts, such as pesticide use and water consumption.

Product Life Cycle—The stages of a product's life—from raw material extraction to manufacturing, distribution, use, and disposal or recycling. Understanding lifecycle stages supports sustainable design intervention.

Quota System / Quota Elimination—A former global trade structure (Multi-Fiber Arrangement) that imposed quotas on textile and apparel exports from developing to developed nations. The Agreement on Textiles and Clothing mandated its phase-out, with full elimination in 2005, reshaping global sourcing, accelerating fast fashion, and intensifying production pressures (World Trade Organization, 1996).

Reflexivity—A practice in which researchers critically examine their own assumptions, positionality, and influence on the research process to enhance credibility and transparency.

Regenerative Design—A sustainability approach aimed at restoring and replenishing ecological systems, moving beyond minimizing harm to generating net-positive environmental outcomes.

Sustainable Business Practice—Operations or strategies that integrate ecological responsibility, ethical labor practices, resource efficiency, and financial viability.

Sustainable Designer—A practitioner whose business model, creative process, or production strategies center sustainability. In this study, the interview sample was further limited to designers who had sustained ongoing professional practice over at least five consecutive years.

Sustainable Fashion / Sustainability—A holistic concept encompassing design, production, distribution, and consumption practices that promote ecological integrity, social justice, and economic viability. Treated here as a mindset, skillset, and ongoing learning process.

Sustainable Mindset—A designer's internalized beliefs, values, and orientations that guide sustainable decision-making and shape how sustainability is interpreted and enacted.

Sustainable Practice—The observable behaviors and decisions through which designers implement sustainability, including material selection, production processes, waste reduction, supply-chain relationships, and communication strategies.

Supply Chain—The network of processes, organizations, and actors involved in producing and delivering fashion products. Sustainable supply chains emphasize ethical labor, environmental responsibility, transparency, and traceability.

Upcycling—A design and production practice that transforms waste materials, discarded garments, or surplus inventory into new products of equal or greater value.

Zero-Waste Design—A design approach that minimizes or eliminates textile waste through intentional patternmaking, cutting strategies, and construction techniques.

Chapter 2: Review of Literature

Introduction

The purpose of this literature review is to build a theoretical and empirical foundation for understanding how sustainable fashion designers learn to think and act sustainably over time. Specifically, the review examines the experiential, cognitive, and structural conditions that shape designers' adoption, enactment, and maintenance of sustainability within their professional practice. This focus aligns directly with the broader purpose of the study: to understand what experiences contribute to designers coming to orient toward sustainability, what facilitates or constrains their ability to sustain such practices, and what forms of learning support their persistence under evolving market conditions.

Sustainability in the global fashion system has been widely examined through environmental, economic, and organizational lenses. At the same time, adult learning theory has developed substantial accounts of how individuals construct meaning from experience, revise assumptions, and translate reflection into action. Yet the intersection of these literatures—within the lived, reflective practice of fashion designers—remains underexplored. Few studies examine how designers internalize ecological and ethical commitments, adapt to disruption, and sustain those commitments within complex structural realities. This review therefore positions sustainability not merely as a technical or aesthetic outcome, but as a developmental process embedded in designers' daily decisions, reflections, and negotiated constraints.

The chapter engages four interrelated bodies of scholarship to construct an interpretive foundation for this inquiry. First, it situates sustainability within the structural realities of the

contemporary fashion system, clarifying the ecological, economic, and institutional conditions that shape designers' work. Second, it establishes experiential learning theory as the primary analytic lens, emphasizing how knowledge emerges through cycles of experience and reflection. Third, it engages transformative learning as a complementary framework for understanding moments of ethical disruption or perspective reorientation. Finally, it integrates scholarship on participation, professional identity, and agency to examine how sustainability commitments become stabilized and enacted within social and structural contexts.

Across these areas, the review maintains a clear center of gravity: designers and their evolving sustainability-oriented practices. Theoretical perspectives are engaged not to expand adult learning discourse, but to illuminate how individuals interpret formative experiences, negotiate systemic barriers, and translate ethical intention into sustained professional action. By clarifying these conceptual foundations, the chapter established the analytical terrain for examining designers' learning trajectories and for articulating a conceptual framework that organized the study's interpretation.

This review draws on scholarship accessed through multiple academic databases, including the Teachers College Gottesman Library online database, the Columbia University CLIO system, Google Scholar, and supplementary sources such as Academia.edu and ResearchGate. Search terms included: Experiential Learning, Transformative Learning, Communities of Practice, Self-Directed Learning, Sustainable Fashion, Sustainability and Fashion, Textile Sustainability, Sustainability and Experiential Learning, COVID-19 and Sustainable Fashion, Fashion Industry Sustainability, and Fashion Industry and COVID-19. The review incorporates foundational adult learning theory texts dating from 1938 onward, with sustainability and fashion literature drawn primarily from 2010 through 2025.

The Current State of Sustainability Scholarship in Fashion

Over the past two decades, sustainability scholarship in fashion has expanded significantly across environmental, organizational, and policy-oriented domains. Much of this research has concentrated on environmental impact assessment, resource intensity, and waste generation associated with textile production and consumption (Fletcher & Grose, 2012; Niinimäki, 2015). Studies have examined carbon reduction strategies, lifecycle analysis of fibers, circular production models, and extended producer responsibility frameworks (Ellen MacArthur Foundation, 2024; Global Fashion Agenda, 2025). Organizational research has further explored how firms integrate sustainability reporting into governance structures, respond to investor and regulatory pressure, and align environmental and social metrics with corporate performance (Da Giau et al., 2016; Rahbek & Pedersen, 2015).

Parallel scholarship in fashion education has addressed curricular reform and the cultivation of sustainability competencies among design students. Educational studies emphasize systems thinking, lifecycle awareness, and design-for-sustainability frameworks as pedagogical priorities (Aakko & Koskennurmi-Sivonen, 2013; Niinimäki, 2015). While this body of work has contributed meaningfully to institutional transformation and curricular innovation, it often centers formal instruction rather than long-term professional learning trajectories within practice.

Research has also documented persistent labor inequities and supply-chain vulnerabilities within globalized production networks (Brydges et al., 2020; Dobos, 2022). Decolonial analyses argue that sustainability discourse can reproduce asymmetrical power relations if environmental metrics are decoupled from questions of labor justice and geopolitical inequality (England, 2024). Similarly, inclusive design research demonstrates that sizing systems, representation, and production planning have material and social consequences that intersect with environmental

sustainability (Dunn, 2024). Collectively, these studies illuminate the structural and systemic conditions shaping sustainable fashion.

Yet despite the breadth of this scholarship, comparatively less attention has been given to sustainability as an evolving developmental trajectory within practicing designers' lived experience. Much of the existing literature documents sustainability adoption at the level of firm strategy, regulatory compliance, or consumer behavior (Da Giau et al., 2016; Global Fashion Agenda, 2025). Fewer studies examine how designers internalize ecological and ethical commitments, how those commitments shift across time and constraint, and how sustainability becomes stabilized within professional identity. The emphasis on policy reform, corporate governance, and technical innovation has inadvertently overshadowed the micro-level developmental processes through which sustainability is enacted and sustained in daily practice.

Moreover, sustainability scholarship frequently frames implementation as a technical or managerial challenge—addressing materials, metrics, supply-chain transparency, and reporting systems (Ellen MacArthur Foundation, 2024). While such analyses are indispensable, they do not fully illuminate how individuals navigate competing demands, reinterpret formative experiences, or reconcile ethical conviction with commercial viability. As Argyris and Schön (1974) suggest in their analysis of organizational learning, espoused commitments do not automatically translate into enacted routines. Understanding sustainability persistence therefore requires attention not only to structural reform but also to the experiential and developmental processes through which designers negotiate constraint.

This study contributes to that evolving conversation by centering the experiential trajectories of sustainable fashion designers. Rather than examining sustainability as a compliance outcome or institutional metric, it investigates how sustainability is learned, revised,

and sustained within professional practice. In doing so, it integrates structural analysis (Brydges et al., 2020; Fletcher & Grose, 2012) with adult learning theory (Dewey, 1938; Kolb, 1984; Mezirow, 1991) to examine the interplay between experience, reflection, identity formation, and agency under constraint.

Sustainability in the Fashion System: Structural Context

Sustainability within the global fashion industry now operates as a multidimensional framework encompassing ecological integrity, social equity, and economic viability (Elkington, 1997; United Nations World Commission on Environment and Development, 1987). In fashion, these dimensions intersect directly with material sourcing, labor conditions, production models, distribution systems, and consumer expectations. The structural organization of the industry therefore shapes the feasibility and depth of sustainability implementation.

Within fashion, these dimensions intersect with material selection, labor conditions, production models, distribution systems, and consumer behavior. Research documents the environmental and social impacts of textile production, including resource-intensive fiber systems and persistent labor inequities across global supply chains (Brydges et al., 2020; Fletcher & Grose, 2012; Niinimäki, 2015). Circular design frameworks emphasize lifecycle accountability, durability, and regenerative systems (Ellen MacArthur Foundation, 2024). For designers, this shift requires anticipating downstream consequences and integrating systems awareness into creative judgment rather than treating sustainability as a post-production correction. These efforts signal a shift from linear production toward systems thinking, requiring designers to consider a garment's lifecycle beyond point-of-sale aesthetics.

Designers occupy a critical position within this structural landscape. Research suggests that a substantial proportion of a garment's environmental and social impact is determined

during the design phase (Ramani et al., 2010). Decisions regarding fiber composition, construction methods, sourcing partners, and anticipated use patterns reverberate across supply chains. Aakko and Koskennurmi-Sivonen (2013) reconceptualized designers as systems thinkers, arguing that sustainable design requires anticipating downstream consequences and integrating ethical reasoning into creative judgment. Subsequent empirical studies (Da Giau et al., 2016; Karell & Niinimäki, 2020) demonstrate that while designers often express strong sustainability commitments, their influence is mediated by organizational cultures, cost structures, and managerial priorities. Implementation is therefore uneven, shaped not only by individual intention but by institutional context.

Recent scholarship further complicates sustainability by expanding its social dimensions. Inclusive design research highlights how sizing systems and body representation influence both equity and material waste. Dunn (2024), for example, demonstrates how misaligned sizing practices produce excess returns and inventory inefficiencies, revealing that inclusivity and environmental impact are interrelated rather than separate concerns. Similarly, decolonial analyses (England, 2024) argue that global sustainability discourse can reproduce asymmetrical power relations if structural inequities remain unaddressed. These perspectives underscore that sustainability extends beyond technical optimization; it is embedded in systems of representation, governance, and historical power.

Institutional initiatives reflect increasing recognition of sustainability as a systemic challenge. The United Nations Fashion and Lifestyle Network convenes stakeholders across policy, industry, and civil society to promote circular models and transparent reporting (United Nations Office for Partnerships, 2025). Regulatory shifts—such as extended producer responsibility legislation and corporate sustainability disclosure requirements—signal a

transition from voluntary commitments toward accountability structures. Industry reporting mechanisms, including the BoF Sustainability Index and the Fashion CEO Agenda (Global Fashion Agenda, 2025), highlight uneven progress across emissions reduction, labor protections, and material innovation. These frameworks function as feedback mechanisms within the broader system, making sustainability performance visible and subject to revision.

Crisis events further reveal the structural fragility of fashion's sustainability efforts. The COVID-19 pandemic disrupted global supply chains, exposed labor precarity, and challenged corporate commitments to ethical sourcing (Brydges et al., 2020; Kim & Woo, 2021). Short-term survival strategies often conflicted with long-term sustainability goals, illuminating tensions between economic resilience and social responsibility. While some firms adopted more localized production or digital transparency initiatives, others deferred payments to suppliers or reduced environmental investments. Crisis conditions thus acted as stress tests, clarifying where sustainability principles were embedded and where they remained aspirational.

Post-pandemic recovery discourse emphasizes resilience, transparency, and circularity as guiding priorities. Reports from the Global Fashion Agenda (2025) and Sourcing Journal (2025) indicate increasing alignment between regulatory requirements, technological innovation, and sustainability reporting. Yet progress remains uneven, and structural barriers persist. Fragmented supply chains, cost pressures, and shareholder expectations continue to constrain the depth of transformation (Da Giau et al., 2016; Rahbek & Pedersen, 2015). These systemic realities form the operational environment within which designers attempt to enact sustainability commitments.

Across these structural analyses, a consistent tension emerges: sustainability is widely endorsed but unevenly operationalized. Designers must navigate aesthetic ambition, commercial viability, supply-chain complexity, and ethical responsibility simultaneously. Their decisions

unfold within interlocking constraints that include regulatory shifts, material availability, organizational culture, and market demand. Grasping sustainability-oriented practice therefore requires attention not only to systemic structures but also to how individuals interpret and respond to them in real time.

This structural context establishes the conditions of practice. Designers do not engage sustainability in abstraction; they encounter it through material choices, business pressures, collaborative relationships, and crisis disruptions. The question that follows is not merely how sustainability is defined at the system level, but how designers learn to interpret, negotiate, and persist within these constraints. To address that question, the next section turns to experiential learning theory as the primary interpretive lens for examining how lived experience becomes sustained professional practice.

Structural Barriers and the Knowing–Doing Tension

Despite widespread endorsement of sustainability principles across the fashion industry, implementation remains uneven. A persistent tension exists between articulated sustainability commitments and enacted practice. This gap is not simply a matter of information deficiency; rather, it reflects the structural, economic, and organizational conditions that mediate professional decision-making.

Argyris and Schön's (1974) distinction between espoused theory and theory-in-use provides a useful conceptual lens for understanding this dynamic. Organizations—and individuals—may publicly endorse sustainability as a guiding value while operating according to routines that prioritize speed, cost efficiency, and shareholder return. When sustainability commitments conflict with dominant performance metrics, they are often subordinated to

short-term commercial imperatives. In such contexts, the challenge is not acquiring knowledge about sustainable alternatives, but aligning values with feasible action.

Institutional inertia further complicates implementation. Global fashion production is characterized by fragmented supply chains, long-standing vendor relationships, and capital-intensive infrastructure. Designers who wish to alter material sourcing, production methods, or distribution pathways must navigate contracts, pricing structures, minimum order quantities, and logistical timelines that resist rapid change. Even when individual designers possess strong sustainability commitments, structural arrangements can limit the range of viable options.

Market logics also exert significant pressure. Fast fashion has normalized rapid trend cycles and low price points, shaping consumer expectations that reward speed and novelty (Brydges et al., 2020; Fletcher & Grose, 2012). Sustainable materials, ethical labor practices, and smaller production runs often entail higher costs and longer timelines. Designers operating independently or within small firms may face acute financial vulnerability when attempting to deviate from established production models. Sustainability, in this sense, becomes a negotiated practice rather than a fully autonomous choice.

Scholars have also identified the "knowing–doing gap" in sustainability contexts, where awareness of environmental harm does not automatically translate into behavioral change. This gap is particularly salient in fashion, where the environmental consequences of design decisions may be geographically and temporally distant from the designer's immediate context. Without direct feedback loops, the urgency of sustainability can become abstract, diluted by competing demands. Designers must therefore construct meaning across dispersed systems, linking local action to global consequence.

Power dynamics further complicate agency. Globalized supply chains often place production in regions where labor protections are limited and regulatory enforcement is uneven. Decolonial analyses (England, 2024) argue that sustainability discourse can obscure these asymmetries if it focuses narrowly on environmental metrics without interrogating labor and geopolitical inequities. Designers working within such systems confront ethical contradictions that extend beyond material selection to questions of equity and accountability. Structural transformation requires negotiation not only of materials and methods, but of power relations embedded within production networks.

Crisis conditions expose these tensions sharply. The COVID-19 pandemic revealed the fragility of global supply chains and the precarity of garment workers, while also intensifying economic pressures on designers and firms. In some cases, sustainability commitments were deferred in favor of financial survival; in others, crisis prompted re-evaluation of sourcing practices, localization strategies, or digital transparency efforts. Such disruptions illuminate the conditional nature of sustainability commitments: their durability depends on how they are embedded within business models and professional identities.

These structural barriers clarify why sustainability cannot be understood solely as a technical design decision or individual moral stance. Designers operate within layered constraints that shape what is possible, affordable, and marketable. Understanding sustainability-oriented practice therefore requires attention not only to intention, but to how individuals interpret and respond to systemic friction. The persistence of sustainable practice hinges on the capacity to navigate the knowing–doing tension, align ethical commitments with feasible action, and adapt strategies within evolving structural conditions.

Crisis as Structural Stress Test and Moral Disruption

Crisis conditions reveal the extent to which sustainability commitments are structurally embedded—or remain peripheral. The COVID-19 pandemic, in particular, functioned as a systemic stress test for the global fashion industry. Supply chain interruptions, canceled orders, delayed payments, and sudden shifts in consumer demand exposed the fragility of production networks that had been optimized for efficiency rather than resilience.

For many brands and designers, crisis conditions intensified pre-existing tensions between ethical aspiration and economic survival. Reports documented widespread order cancellations without payment to suppliers (Brydges et al., 2020; Kim & Woo, 2021), leaving garment workers in vulnerable positions. These actions underscored how quickly sustainability rhetoric could be subordinated to liquidity concerns. The pandemic did not create structural inequities; it made them visible.

At the same time, crisis generated uneven but significant experimentation. Some designers pursued localized production to reduce dependency on distant suppliers (Brydges et al., 2020; Kim & Woo, 2021). Others explored digital sampling, pre-order models, or smaller production runs to minimize waste and inventory risk (Teodoro & Rodriguez, 2020). These shifts were not uniformly driven by environmental commitment; often they were pragmatic responses to constrained capital and uncertain demand. Yet in some cases, such adaptations aligned with sustainability principles, suggesting that structural disruption can open space for reconfiguration.

Crisis also altered temporal horizons. Under stable conditions, sustainability initiatives may unfold gradually, integrated incrementally into design and sourcing processes. Under crisis, decision cycles compress. Designers must make rapid judgments regarding production volumes, staffing, partnerships, and material procurement. This acceleration can either reinforce

short-term survival strategies or catalyze reevaluation of business models. Whether sustainability commitments persist under such compression becomes a key indicator of their depth.

Beyond economic pressures, crisis conditions can function as moral disruption. Exposure to labor precarity, public scrutiny of supply-chain ethics, and heightened awareness of global interdependence may prompt reassessment of professional responsibility—including ethical questions regarding accountability and care within production networks (Brydges et al., 2020; Kim & Woo, 2021). For some, crisis sharpened commitment; for others, it revealed the limits of individual agency within entrenched systems (Da Giau et al., 2016; Fletcher & Grose, 2012).

Importantly, crisis does not operate uniformly across actors. Designers with diversified revenue streams, strong supplier relationships, or smaller production scales may have greater flexibility to maintain sustainability commitments. Others operating with thin margins or high fixed costs may face stark trade-offs. Thus, crisis highlights the relational and structural conditions that shape whether sustainability functions as resilient practice or discretionary ideal.

In this sense, crisis is not inherently transformative. It can produce retrenchment as readily as reform. Its significance lies in the exposure of systemic fault lines and in the acceleration of decision-making under constraint. For sustainability-oriented designers, the pandemic and subsequent market volatility tested whether ethical commitments were peripheral strategies or integrated dimensions of professional identity .

Understanding how designers navigated such disruptions is therefore central to examining sustainability persistence. Crisis clarifies the interaction between structural constraint, adaptive experimentation, and moral orientation. It reveals the conditions under which sustainability commitments are revised, reinforced, or deferred—and it underscores the

importance of examining sustainability not merely as policy adoption, but as enacted practice under pressure.

Experiential Learning as the Primary Interpretive Lens

To interpret how designers develop and sustain sustainability-oriented practice, this study drew primarily on experiential learning theory (ELT). Experiential learning provided a framework for understanding how individuals construct meaning from lived events, revise their interpretations through reflection, and translate insight into subsequent action. Rather than treating sustainability as a static body of knowledge to be acquired, ELT conceptualizes learning as an ongoing process through which experience becomes reorganized into evolving professional judgment. This orientation made it particularly suited to examining sustainability within creative practice, where ethical commitments are tested repeatedly against material and market realities.

John Dewey's (1938) pragmatism established the foundational premise that experience becomes educative when it is subjected to reflective inquiry. For Dewey, continuity and interaction define learning: past experiences shape present interpretation, and present actions influence future conditions. Learning is therefore developmental rather than episodic, cumulative rather than isolated. In professional contexts, this continuity underscores how designers' early encounters with materials, clients, mentors, or ethical tensions reverberate across subsequent decisions.

Building on these foundations, David Kolb (1984) articulated experiential learning as a cyclical process through which knowledge is created by transforming experience. The model identifies four interrelated modes—concrete experience, reflective observation, abstract conceptualization, and active experimentation. Learning occurs not through any single stage, but through movement across the cycle: individuals engage in experience, reflect upon it, formulate

interpretations or principles, and test those interpretations through renewed action. Kolb's later revisions (2014) emphasized that effective learning requires integration of perception and action rather than reliance on preferred modes. Within sustainability-oriented design practice, this cyclical logic clarifies how designers test material choices, evaluate consequences, revise assumptions, and implement new strategies across iterative collections or projects.

Subsequent scholars have expanded ELT beyond its structural representation to incorporate affective, relational, and contextual dimensions. Boud et al. (1985) argued that reflection involves not only cognitive processing but attention to emotions, values, and social context. Experience alone does not generate learning; it must be re-examined, including the feelings associated with it, in order to produce reoriented action. In sustainability practice, where decisions frequently carry moral weight, the affective dimension of reflection becomes central. Designers may confront frustration, urgency, doubt, or conviction as they reconcile ecological commitments with business constraints. Such emotional responses are not peripheral; they shape how experiences are interpreted and whether insights are translated into sustained behavior.

Beyond cognitive processing, reflection in professional contexts frequently involves ethical evaluation. Dewey's conception of reflective inquiry emphasized the examination of consequences, not merely for technical efficiency but for responsible action. In sustainability-oriented practice, reflection becomes a site of moral deliberation in which designers assess not only whether a decision "works," but whether it aligns with their developing commitments to environmental stewardship, labor equity, and long-term accountability. This evaluative dimension distinguishes routine problem-solving from reflective learning. When designers revisit sourcing decisions, material experimentation, or production partnerships, they are often engaging in judgments that intertwine aesthetic, commercial, and ethical criteria. Reflection thus functions

as a mechanism through which sustainability becomes integrated into professional reasoning rather than appended as an external constraint.

Donald Schön's (1983) notion of the reflective practitioner further situates learning within professional action. Schön distinguishes between reflection-on-action—retrospective analysis—and reflection-in-action, the capacity to adjust judgment while practice is unfolding. Creative professionals routinely operate in conditions of uncertainty, where rules are incomplete and consequences are emergent. Reflection-in-action captures how designers respond to unexpected material limitations, supplier negotiations, or production challenges without suspending practice. This immediacy is critical for understanding sustainability as embedded in ongoing work rather than confined to deliberate planning moments.

Illeris (2018) critiques overly linear representations of experiential learning and emphasizes its non-linear, socially situated character. Learning, in his view, involves the integration of cognitive, emotional, and social dimensions within specific contexts, unfolding across overlapping and recursive processes rather than predictable stages. In complex professional environments such as fashion, designers rarely move cleanly from experience to reflection to action in sequential order. Instead, insights emerge unevenly, are interrupted by market demands, and are revisited as new information becomes available. Sustainability learning therefore operates within dynamic systems characterized by feedback, constraint, and evolving norms. Experiential learning in this context is iterative but not mechanically cyclical; it reflects adaptive engagement with shifting structural realities.

Taken together, these perspectives support an understanding of sustainability not as a discrete competency but as praxis—an ongoing integration of reflection and action within lived professional contexts. Designers engaged in sustainability-oriented work do not merely apply

preexisting principles; they interpret experience, experiment with alternatives, and revise commitments through repeated engagement with materials, collaborators, and constraints. Over time, sustainability becomes embedded within the habits of judgment that guide design decisions. Experiential learning therefore provided the primary analytic lens for this study because it captures how sustainability is enacted, recalibrated, and sustained as a mode of professional practice rather than a singular intervention.

While ELT provided the central interpretive structure, certain designer narratives also reflected moments of more pronounced value reorientation or perspective shift. The following section introduces transformative learning as a complementary framework for examining those moments.

Transformative Learning as a Complementary Frame

While experiential learning provided the primary interpretive lens for this study, transformative learning theory offered a complementary perspective for examining moments of significant value reorientation within professional practice. Originally articulated by Mezirow (1991), transformative learning describes adult development as catalyzed by experiences that destabilize previously held assumptions. These disorienting dilemmas interrupt habitual ways of interpreting experience and prompt critical examination of underlying beliefs. Through reflective reassessment, individuals may revise meaning perspectives and reorganize their understanding of themselves and their work.

Mezirow's (1991) theory centers on the notion that adults operate through structured frames of reference—composed of assumptions, expectations, and values shaped by culture and prior experience. When events expose the inadequacy of those frames, individuals may engage in critical reflection, evaluating the validity of their assumptions and considering alternative

interpretations. In professional contexts, such dilemmas need not be dramatic; they may accumulate gradually as tensions between practice and principle intensify. For designers engaged in sustainability-oriented work, potential disorienting experiences may include exposure to exploitative labor conditions, recognition of environmental degradation linked to material choices, confrontation with supply-chain opacity, or acute financial pressures that challenge ethical commitments. These experiences may destabilize previously unexamined norms about speed, profitability, or responsibility.

Critical reflection, in transformative learning, extends beyond problem-solving. It involves questioning the premises that guide action. Cranton (2006) emphasizes that transformative learning often unfolds within relational contexts where dialogue and trust support reassessment. Taylor's (2007) synthesis of empirical research demonstrates that transformative processes vary considerably; they may involve emotional struggle, identity uncertainty, and prolonged negotiation rather than sudden clarity. More recent scholarship suggests that transformation may be less episodic than early formulations implied. Hoggan and Finnegan (2023) argue that adult transformation can occur incrementally within complex moral environments, where individuals repeatedly revisit commitments rather than experience singular turning points.

These refinements are particularly relevant in sustainability contexts. Designers in this study rarely described a single moment that permanently resolved ethical tension. Instead, many recounted navigating recurring conflicts between ecological responsibility and commercial viability. The question, then, is not simply whether designers experience disorienting dilemmas, but how those dilemmas are interpreted and integrated over time. Some described decisive

moments that alter their professional trajectory; others may recount gradual shifts in values reinforced through repeated practice.

Transformative learning has also been critiqued for privileging rational-critical reflection and for emphasizing individual cognition over social and contextual dynamics. Dirkx (1998) argues that transformation involves affective and imaginative dimensions that exceed purely rational deliberation. Sustainability dilemmas are frequently emotionally charged, marked by frustration, urgency, grief, or moral conviction. Illeris (2018) further contends that learning processes cannot be isolated from the social and structural conditions in which they occur. These critiques caution against interpreting all meaningful professional change as fully self-authored perspective transformation detached from context.

Within this study, transformative learning was therefore positioned carefully and proportionately. It provided conceptual vocabulary for analyzing instances in which designers articulate ethical rupture, reassessment of professional priorities, or redefinition of success. At the same time, the study did not assume that sustainability-oriented development necessarily reflects wholesale perspective transformation. Many sustainability trajectories appear less as singular conversions and more as iterative recalibrations shaped by ongoing engagement with constraints.

While transformative learning theory provides insight into value reorientation, this study examined whether sustainability-oriented development reflects episodic transformation or iterative recalibration within professional practice. By situating transformative learning alongside experiential learning, the analysis preserved its primary emphasis on cyclical engagement while remaining attentive to moments of deeper moral and professional reconfiguration.

From Literature to Inquiry: Conceptual Gaps and Analytic Directions

Taken collectively, the literatures reviewed illuminate critical dimensions of sustainability-oriented practice, yet important gaps remain. Sustainability scholarship clarifies environmental degradation, labor vulnerability, regulatory reform, and institutional inertia embedded in the fashion system (Brydges et al., 2020; Fletcher & Grose, 2012; Global Fashion Agenda, 2025). It documents the structural pressures that constrain ethical production and the uneven integration of sustainability across firms (Da Giau et al., 2016). However, these analyses frequently operate at macro and organizational levels, offering limited insight into how individual designers interpret and respond to such conditions over time.

Experiential learning theory explains how individuals construct meaning from lived experience through reflection and iterative engagement (Dewey, 1938; Kolb, 1984). It provides a framework for understanding how professional judgment evolves through repeated cycles of action and evaluation. Yet ELT alone does not fully account for the moral intensity and identity destabilization that sustainability dilemmas may provoke, particularly in contexts where ethical commitments conflict with economic imperatives.

Transformative learning theory contributes a vocabulary for examining disorienting dilemmas and perspective revision (Cranton, 2006; Mezirow, 1991; Taylor, 2007). It clarifies how individuals reassess assumptions and reorient professional priorities. However, critiques of transformative learning caution against overemphasizing episodic conversion narratives and underestimating incremental developmental processes (Dirkx, 1998; Hoggan & Finnegan, 2023; Illeris, 2018). Sustainability trajectories may involve gradual recalibration rather than singular transformation.

Similarly, scholarship on situated learning, identity, and agency explains how commitments become stabilized within communities of practice and enacted within structural constraint (Biesta & Tedder, 2007; Emirbayer & Mische, 1998; Ibarra, 1999; Lave & Wenger, 1991; Wenger, 1998). These perspectives illuminate persistence and professional becoming, yet they do not independently explain the experiential origins of sustainability orientation.

Across these bodies of work, what remains insufficiently addressed is the longitudinal interplay between structural constraint and experiential development. How did designers come to orient toward sustainability in the first place? What experiences catalyzed that orientation? How did structural pressures reshape, reinforce, or threaten it? What forms of learning supported persistence when sustainability commitments conflict with dominant market logics?

This study addresses these questions by integrating structural analysis with developmental learning frameworks. Rather than privileging a single theoretical account, it draws from complementary lenses to examine how sustainability commitments emerge, evolve, and endure within professional practice. The aim is not to advance sustainability as policy prescription nor to extend adult learning theory abstractly, but to articulate patterns through which designers negotiate tension, recalibrate practice, and sustain ethical engagement over time.

Learning in Practice: Participation, Identity, and Agency

Experiential and transformative learning theories illuminate how individuals interpret experience and revise understanding over time. Yet professional sustainability practice unfolds not in isolation but within social, organizational, and material contexts. To understand how sustainability commitments persist, it is necessary to consider how learning becomes embedded in participation, identity formation, and agency enacted under constraint.

Lave and Wenger's (1991) theory of situated learning shifts the focus from learning as acquisition of knowledge to learning as participation in practice. Through what they term "legitimate peripheral participation," newcomers gradually move toward fuller engagement within a community of practice by participating in shared activities, negotiating meaning, and observing established norms. Knowledge is not transmitted abstractly but constructed through involvement in collective work. For designers operating within sustainability-oriented networks—whether through supply-chain partnerships, mentorship, collaborative initiatives, or professional associations—learning occurs through participation in shared problem-solving and iterative exchange. Engagement in such communities reinforces particular standards of responsibility, material literacy, and ethical discourse, shaping what counts as legitimate practice.

Situated learning also foregrounds identity as central to participation. Wenger (1998) argues that identity is formed through engagement in practice; individuals come to see themselves as certain kinds of professionals through repeated involvement in particular communities and activities. Learning, in this sense, is inseparable from becoming. Sustainability-oriented designers may therefore develop not only new competencies but also revised understandings of who they are as practitioners. Through sustained participation in ethical sourcing, circular experimentation, or transparency initiatives, sustainability can move from peripheral concern to integrated professional identity.

Research on professional identity development further clarifies this process. Ibarra (1999) describes how professionals experiment with "provisional selves," testing new behaviors and commitments before consolidating them into more stable identities. In entrepreneurial and creative fields, identity stabilization often follows iterative cycles of experimentation and

feedback. Designers who initially adopt sustainable practices as exploratory or values-driven initiatives may, over time, integrate these practices into a coherent professional self-concept. Identity consolidation contributes to persistence: when sustainability becomes part of "who one is" as a designer, it is less likely to be abandoned under pressure.

However, identity alone does not ensure action. Designers operate within structural constraints that include cost pressures, regulatory demands, supplier limitations, and market volatility. Agency in such contexts cannot be understood as unconstrained autonomy. Emirbayer and Mische (1998) conceptualize agency as temporally embedded—simultaneously informed by past habits, oriented toward future possibilities, and responsive to present contingencies. This dynamic view aligns with sustainability practice, where designers draw on prior experience, imagine alternative production pathways, and respond to immediate constraints in real time.

Biesta and Tedder (2007) extend this argument through the notion of ecological agency, emphasizing that agency emerges through the interplay between individuals and their environments. Agency is not a personal trait but an achievement enacted within specific conditions. For sustainability-oriented designers, this means that ethical intention must be translated into feasible decisions within material, economic, and organizational realities. Persistence is therefore shaped not only by conviction but by the capacity to navigate constraint creatively.

When participation, identity formation, and ecological agency are considered together, sustainability-oriented practice can be understood as learning stabilized within social and structural contexts. Designers engage in communities that shape norms, experiment with provisional professional selves, and enact agency within overlapping structural conditions. Over

time, these processes reinforce patterns of practice that enable sustainability commitments to endure despite systemic pressures.

This integrated perspective complements the experiential lens established earlier. Experiences are interpreted through reflection; participation situates those interpretations within shared practice; identity consolidates recurring commitments; and agency translates conviction into action under constraint. Together, these dimensions clarify how sustainability-oriented fashion practice may persist not merely as intention, but as enacted and sustained professional trajectory.

Integrative Synthesis and Conceptual Framing

The literatures reviewed in this chapter converge around a central concern: how sustainability-oriented fashion practice develops and persists within structurally constrained environments. Structural scholarship clarifies the ecological, economic, and geopolitical conditions shaping fashion production (Brydges et al., 2020; England, 2024; Fletcher & Grose, 2012). Experiential learning theory explains how individuals reorganize lived experience through reflection and iterative engagement (Dewey, 1938; Illeris, 2018; Kolb, 1984). Transformative learning provides language for examining moments of ethical destabilization and perspective revision (Cranton, 2006; Hoggan & Finnegan, 2023; Mezirow, 1991). Scholarship on situated learning, identity, and agency further illuminates how commitments become stabilized through participation and enacted within structural constraint (Biesta & Tedder, 2007; Emirbayer & Mische, 1998; Ibarra, 1999; Lave & Wenger, 1991).

Taken individually, each body of work explains a dimension of sustainability-oriented practice. Taken together, they suggest that sustainability is neither solely a technical strategy nor a singular moral conversion. Rather, it develops through ongoing cycles of reflective

engagement, participatory learning, and negotiated practice — shaped by both individual experience and structural constraint.

Experiential learning positions sustainability as an ongoing process of meaning-making through lived engagement. Designers encounter material constraints, supplier negotiations, aesthetic dilemmas, and market pressures; through reflection, they reorganize these experiences into evolving professional judgment (Dewey, 1938; Kolb, 1984). Transformative learning introduces the possibility that certain experiences—particularly those involving ethical contradiction or systemic inequity—may provoke deeper reassessment of assumptions (Mezirow, 1991). Yet critiques of episodic transformation caution against assuming that sustainability trajectories follow singular rupture narratives (Dirkx, 1998; Illeris, 2018). Many designers instead appear to recalibrate commitments iteratively as tensions recur.

Structural scholarship underscores that such recalibration does not occur in a vacuum. Designers operate within global supply chains, regulatory regimes, and market logics that constrain feasible action (Da Giau et al., 2016; Global Fashion Agenda, 2025). Argyris and Schön's (1974) distinction between espoused theory and theory-in-use clarifies why sustainability commitments may falter under pressure. Agency therefore must be understood ecologically—as emerging through interaction between individuals and their environments rather than as unconstrained autonomy (Biesta & Tedder, 2007).

Participation and identity formation further stabilize sustainability commitments over time. Through engagement in communities of practice, designers negotiate meaning and develop shared standards of responsibility (Lave & Wenger, 1991; Wenger, 1998). Repeated experimentation with provisional professional selves can consolidate sustainability into an integrated identity (Ibarra, 1999). Persistence thus becomes less a matter of isolated decision-

making and more a function of how sustainability is embedded in professional self-concept and social networks.

Across these strands, four interrelated dimensions consistently emerge. First, sustainability practice is rooted in reflective engagement with lived experience, where ethical evaluation and iterative experimentation reorganize professional judgment (Boud et al., 1985; Dewey, 1938). Second, sustainability development involves adaptive recalibration—and in some cases perspective revision—in response to tension, disruption, or moral contradiction (Hoggan & Finnegan, 2023; Mezirow, 1991). Third, sustainability practice unfolds within structural systems characterized by power asymmetries, supply-chain complexity, and economic constraint (England, 2024; Fletcher & Grose, 2012). Fourth, persistence requires resilience—an ability to sustain commitments through crisis, uncertainty, and evolving market conditions (Brydges et al., 2020; Emirbayer & Mische, 1998).

For analytic clarity, these interrelated dimensions are described in this study as foundational, adaptive, structural, and resilience domains. They are not sequential stages, nor are they independent variables. Rather, they function as sensitizing concepts (Blumer, 1954) that organize attention to recurring patterns within designers' narratives. The foundational domain captures reflective and experiential engagement. The adaptive domain attends to recalibration and, where present, transformation. The structural domain situates practice within systemic constraint. The resilience domain highlights the capacity to sustain commitments under pressure.

These domains are dynamically interdependent. Structural pressures may generate disorienting experiences; reflective engagement may reinforce identity; identity consolidation may strengthen resilience; and resilience may enable continued experimentation within constraint.

Sustainability-oriented fashion practice may thus be understood as a developmental trajectory shaped by experiential disruption, participatory reinforcement, and agency enacted within structural constraint. This conceptual framing guided the interpretive work that followed by orienting examination of designers' narratives — not as isolated anecdotes, but as expressions of learning, adaptation, and persistence that the framework helped render interpretable within complex systems.

Theoretical Translation to Analytic Approach

The conceptual framing articulated here informed, but did not predetermine, the analytic strategy of this study. The four interrelated domains—foundational, adaptive, structural, and resilience—did not operate as fixed coding categories imposed a priori. Rather, they provided an interpretive scaffold through which recurring patterns of reflection, adaptation, constraint, and persistence could be examined. Consistent with interpretive qualitative methodology (Charmaz, 2014), initial coding remained open and inductive, allowing themes to emerge from participants' accounts. As analysis progressed, theoretical constructs drawn from experiential learning (Dewey, 1938; Kolb, 1984), transformative learning (Mezirow, 1991), and ecological agency (Biesta & Tedder, 2007) informed comparative interpretation across cases. In this way, the literature reviewed in this chapter operated not as a prescriptive template, but as a set of analytic lenses that sharpened attention to how sustainability commitments were narrated, enacted, challenged, and sustained. Chapter 3 details the methodological procedures through which these theoretical sensibilities were translated into systematic coding and cross-case analysis.

Cross-Sectional Theoretical Integration and Alignment with Research Questions

The integration of sustainability scholarship and adult learning theory directly informed the research questions guiding this study. The first research question addressed what experiences

contribute to designers coming to orient toward sustainability. Experiential learning theory provided the primary lens for examining how formative encounters—whether material, relational, or ethical—become reorganized through reflection into evolving professional commitments (Dewey, 1938; Kolb, 1984). Transformative learning further clarified how disorienting dilemmas may catalyze deeper reassessment of assumptions and priorities (Cranton, 2006; Mezirow, 1991). Together, these frameworks grounded the analytic orientation toward how sustainability commitments might emerge through lived experience rather than through abstract principle alone—a question that required participant accounts to address directly.

The second research question addressed what facilitates or impedes designers' ability to maintain sustainability-focused practices. Structural analyses of the fashion system illuminate the economic pressures, supply-chain complexities, and power asymmetries that constrain ethical action (Brydges et al., 2020; England, 2024; Fletcher & Grose, 2012). Argyris and Schön's (1974) distinction between espoused theory and theory-in-use clarifies why sustainability commitments may encounter friction within institutional routines. At the same time, scholarship on participation and communities of practice suggests that relational networks can reinforce and stabilize emerging commitments (Lave & Wenger, 1991; Wenger, 1998). The literature therefore framed the examination of whether sustainability persistence operated as a negotiated process shaped by both structural barriers and social reinforcement—a dynamic the literature could identify in theory, but not trace within individual careers.

The third research question examined what designers needed to learn in order to sustain sustainability-oriented practice over time. Experiential learning emphasizes iterative experimentation and reflective judgment (Illeris, 2018; Kolb, 1984), while identity scholarship highlights the gradual consolidation of professional selves through practice (Ibarra, 1999).

Agency theory further situates action within temporal and ecological dimensions, recognizing that capacity to act emerges in relation to structural conditions (Biesta & Tedder, 2007; Emirbayer & Mische, 1998). Taken together, these perspectives framed sustainability as a developmental process requiring ongoing learning, identity work, and ethical navigation of structural constraint.

The fourth research question examined how sustainability-focused designers reacted, responded, and adapted to COVID-19 and its ongoing impacts. Scholarship on crisis as structural disruption provided the primary lens for examining how pandemic conditions intensified pre-existing tensions between ethical aspiration and economic survival (Brydges et al., 2020; Kim & Woo, 2021). The literature clarified how crisis events function simultaneously as structural stress tests—exposing the fragility of global supply chains and the conditionality of sustainability commitments—and as potential catalysts for adaptive experimentation, including localized production, digital sampling, and pre-order models (Teodoro & Rodriguez, 2020). Argyris and Schön's (1974) distinction between espoused theory and theory-in-use further framed the examination of whether sustainability commitments held under acute pressure or were subordinated to short-term survival imperatives. Together, these frameworks oriented the analysis toward how crisis conditions revealed the depth to which sustainability had been integrated into designers' professional identities and business models—a question the literature could theorize but only participant accounts could trace within lived experience.

Across all four research questions, the literature converges on a central proposition: sustainability-oriented fashion practice may not be reducible to technical innovation, policy adoption, or isolated moral conviction. It may instead emerge through the interplay of experiential engagement, ethical evaluation, structural negotiation, and participatory

reinforcement—a process that is potentially developmental, relational, and iterative. By articulating this integrated theoretical foundation, Chapter 2 guided the analysis that follows. Designers' narratives are examined as patterned expressions of learning and persistence within complex systems, illuminating how sustainability commitments emerge, evolve, and endure in practice.

The theoretical frameworks reviewed in this chapter illuminate the structural conditions, experiential processes, and identity dynamics that shape sustainability-oriented practice in fashion—yet they cannot, on their own, answer the study's core questions. The existing literature establishes what sustainability demands of designers conceptually; it does not reveal how individual designers actually narrate, negotiate, and live those demands across their careers. To access those experiential trajectories, this study engaged 18 participants—including independent designers, firm-based designers, and fashion educators—through a combination of a survey, Critical Incident Questionnaire (CIQ), in-depth interviews, and focus groups. These methods were designed to surface the particular, the contextual, and the contradictory: the specific moments of disruption, the personal negotiations with structural constraint, and the forms of learning that enabled or undermined persistence. The voices of participants, in other words, were not supplementary to the literature—they were the necessary means of grounding theoretical constructs in lived professional experience.

With this theoretical foundation established, Chapter 3 details the methodological design through which these developmental processes were examined. Grounded in the understanding that sustainability-oriented fashion practice emerged through experiential engagement, adaptive recalibration, navigation of structural constraint, and resilience under pressure, the research approach traced these dynamics within lived professional narratives. Chapter 3 outlines the

qualitative methodology employed to investigate how designers articulated, enacted, and maintained sustainability commitments over time, detailing the data collection and analytic procedures aligned with the conceptual framing presented here.

Chapter 3: Methodology

Research Design and Rationale

This study employed a qualitative, interpretive research design to examine how independent fashion designers develop and sustain sustainability-oriented practice over time. The purpose of the inquiry was to understand the lived experiences through which designers come to adopt sustainability commitments, the challenges and supports that shape persistence, the knowledge and skills developed through practice, and the ways designers adapt their commitments under shifting structural conditions. Because these phenomena concern meaning-making, identity formation, and professional learning within complex commercial environments, an interpretive qualitative approach was most appropriate.

Qualitative inquiry is particularly suited to research questions that seek to understand how individuals interpret experience and construct meaning within context (Creswell, 2013; Denzin & Lincoln, 2013b). Rather than measuring sustainability adoption through predefined indicators or quantifiable metrics, the study sought to understand how designers interpret sustainability, narrate its development within their professional trajectories, and negotiate its enactment under conditions of structural pressure. Such inquiry requires access to participants' interpretive frameworks, reflective accounts, and situated judgments—forms of knowledge not fully accessible through survey instruments. A qualitative design therefore enabled in-depth exploration of process, complexity, and contextual nuance (Marshall & Rossman, 2015).

The inquiry was grounded in an interpretive paradigm, which assumes that social reality is constructed through experience and interaction rather than existing as an objective,

independently measurable entity (Denzin & Lincoln, 2013a). Within this orientation, sustainability-oriented practice is understood not as a static attribute but as an evolving professional orientation shaped by lived encounters, relational participation, and structural negotiation. The goal of the research was not to test a predetermined model of sustainability adoption, but to generate a rich account of how sustainability commitments emerge, stabilize, and develop within independent fashion entrepreneurship.

Alternative methodological approaches were considered but determined to be insufficient for addressing the research questions. A quantitative design would have required operationalizing sustainability commitment into standardized variables, thereby constraining participants' meanings within predefined categories. Such an approach would not have captured the developmental, identity-inflected, and contextually mediated processes central to the study. Similarly, a purely cross-sectional survey design would have provided breadth but limited depth, obscuring the temporal and experiential dimensions of sustainability development.

A mixed-methods approach was also considered; however, the primary research objectives centered on interpretive understanding rather than statistical generalization. While an initial survey phase was incorporated to gather demographic and contextual information and to broaden participant access, the core analytic work depended on narrative interviews, critical incident elicitation, and focus group dialogue. These methods facilitated layered exploration of experiential disruption, skill development, relational reinforcement, and agency within constraint.

The research design was structured as a multi-phase qualitative inquiry. Data collection proceeded sequentially across five stages. The first phase comprised an initial survey to identify eligible participants and document demographic and professional background characteristics.

The second phase involved a Critical Incident Questionnaire (CIQ) designed to elicit pivotal sustainability-related experiences prior to in-depth interviewing. The third phase consisted of in-depth semi-structured interviews with a purposive subset of participants. The fourth phase comprised two focus group sessions conducted following preliminary analysis to assess convergence, divergence, and collective sense-making. The fifth phase involved targeted follow-up contacts with a subset of participants to explore adaptive responses to evolving policy and market conditions encountered during the data collection period (see the Data Collection Procedures section). This sequenced design allowed for progressive deepening of inquiry, analytic refinement, and triangulation across data sources.

The decision to incorporate critical incident elicitation was aligned with the study's interest in learning trajectories. By inviting participants to describe moments of ethical tension, dissonance, or professional disruption, the design sought to surface experiential catalysts without presupposing singular transformative events. The subsequent interview phase enabled exploration of how such moments were integrated into professional identity and practice over time. The focus group phase functioned not as a separate data stream but as a triangulation mechanism, permitting participants to confirm, complicate, or extend emergent analytic patterns identified in earlier phases.

The interpretive orientation of the study was further informed by adult learning theory and sustainability scholarship, which conceptualize professional development as socially situated, contextually mediated, and dynamically negotiated (Boud et al., 1985; Kolb, 1984; Wenger, 1998). While theoretical frameworks guided the formulation of research questions and informed interpretive analysis in Chapter 5, they did not predetermine coding categories or

constrain emergent themes. The analytic strategy prioritized inductive development of patterns grounded in participants' accounts before engaging in theoretical integration.

Researcher Positionality and Reflexivity

Qualitative research acknowledges that the researcher is not a neutral or fully objective instrument but an interpretive participant in the construction of knowledge (Creswell, 2013; Denzin & Lincoln, 2013a). Within interpretive inquiry, the researcher's background, professional experience, and intellectual commitments shape the framing of research questions, the conduct of interviews, and the interpretation of findings. Accordingly, reflexive transparency is essential to methodological rigor.

The researcher conducting this study brings over two decades of professional experience in fashion design and higher education, as well as leadership experience within sustainability-focused consulting. Prior to undertaking doctoral study, the researcher worked as a fashion designer and later served in academic administrative and faculty roles within fashion design programs. At the time of this study, the researcher was also engaged in sustainability consulting across fashion, higher education, and finance sectors. This professional background provided both access to the field and deep contextual familiarity with the structural and cultural dynamics shaping independent fashion entrepreneurship.

This embedded industry experience functioned as an analytic asset. Participants often referenced technical processes, supply-chain challenges, certification complexities, production scaling, and pricing negotiations using industry-specific language. The researcher's familiarity with these operational realities enabled nuanced follow-up questioning, clarification of material processes, and recognition of implicit trade-offs embedded in participants' narratives. This

shared fluency allowed interviews to move directly to reflective and interpretive dimensions of sustainability practice, deepening the richness of data collected.

At the same time, insider status introduces potential interpretive risks. Shared professional background may generate assumptions of common understanding, potentially obscuring divergent meanings or unexamined biases. Participants might also perceive the researcher as an evaluator, consultant, or peer rather than solely as an academic investigator. To address these dynamics, several reflexive strategies were employed throughout the research process.

Interview framing was the first reflexive strategy employed. The researcher explicitly positioned each session as exploratory rather than evaluative, informing participants that the study's purpose was to understand lived experience rather than to assess sustainability performance or compliance. This framing aimed to reduce the normative pressure that sustainability discourse can carry within professional communities. A parallel strategy involved systematic reflective journaling — writing down assumptions, expectations, and initial impressions before and after each interview session, then revisiting those entries during analysis to assess whether interpretive patterns reflected participant accounts or prior professional experience. This bracketing practice made the researcher's positionality visible as an ongoing analytic object rather than a one-time disclosure. The second strategy involved systematic analytic memoing throughout data analysis. When participants' accounts aligned closely with the researcher's own professional observations, memos were written to interrogate whether convergence reflected genuine pattern recurrence or interpretive familiarity. When participants described perspectives that diverged from the researcher's expectations, these instances were examined carefully rather than treated as anomalies.

The multi-phase design of the study itself functioned as a third reflexive safeguard. The inclusion of a survey phase, critical incident elicitation, in-depth interviews, and focus group dialogue allowed patterns to be examined across different communicative contexts and data sources. Focus group sessions provided opportunities for participants to respond collectively to emerging analytic summaries, with instances of confirmation, complication, or disagreement incorporated into subsequent analytic development. A fourth strategy involved member validation through the preparation and return of individual executive summaries. Following each CIQ session and each in-depth interview, the researcher prepared a concise written summary synthesizing the participant's key experiences, themes, and interpretive highlights. These summaries were returned to participants individually for confirmation, clarification, or elaboration (see Appendix K for a sample CIQ executive summary; Appendix L for a sample interview executive summary).

It is important to note that the researcher's professional alignment with sustainability did not predetermine analytic outcomes. The study did not assume that sustainability commitment is universally positive, nor that persistence reflects moral superiority. Rather, the inquiry sought to understand how designers themselves interpret and negotiate sustainability under real operational conditions. Instances of compromise, ambivalence, and strategic flexibility were treated as analytically significant rather than as deviations from an idealized standard.

The researcher's positionality also appeared to facilitate participant openness. Shared industry experience reduced the need for defensive explanation and enabled candid discussion of trade-offs, failures, and ethical tension. Several participants expressed relief in speaking with someone familiar with the material and commercial complexities of fashion practice. While such rapport deepens narrative disclosure, it equally requires disciplined attention to analytic rigor—a

balance maintained throughout through systematic coding, cross-case comparison, and transparent documentation of analytic decisions.

Together, these reflexive strategies—interview framing, analytic memoing, multi-phase triangulation, and member validation—positioned the researcher's professional embeddedness as an interpretive resource while maintaining the methodological accountability that interpretive inquiry requires.

Participant Selection and Sampling Strategy

This study employed purposive sampling to identify independent fashion designers engaged in sustained sustainability-oriented practice (Marshall & Rossman, 2015). The aim of sampling was not statistical representation but analytic depth. Participants were selected based on their capacity to provide rich, reflective accounts of sustainability development over time within independent entrepreneurial contexts.

To ensure relevance to the research questions, participants were required to meet three inclusion criteria: they had to be at least 18 years of age, identify their practice as sustainability-oriented in environmental and/or social dimensions, and have sustained independent fashion practice over a minimum of five years. This criterion was used to identify designers with durable engagement under real operating conditions; it was not intended to imply that sustainability is valid only when supported by affluent markets or robust profit margins. The five-year threshold was established to distinguish sustained engagement from early-stage experimentation, focusing the study on individuals who had navigated multiple production cycles, supplier negotiations, financial pressures, and evolving market conditions over time.

Survey Sample: Demographic Profile

Overview

The initial survey was distributed between October 2023 and March 2025 as the first phase of a multi-stage qualitative study. A total of 58 individuals submitted responses, of whom 56 provided substantive demographic data across most categories (2 respondents consented but provided minimal responses). The survey was administered in both English (n = 52, 89.7%) and Spanish (n = 6, 10.3%), reflecting the researcher's deliberate effort to reach sustainability-focused fashion professionals across Latin American markets where Spanish is the primary language of the industry. The figures reported below reflect the total responding subsample for each variable, which varies slightly across items due to non-response on individual questions.

Age

Respondents ranged in age from 18 to 84, with the largest concentration in the 35–44 age bracket (n = 22, 39.3%), followed by the 25–34 group (n = 13, 23.2%). Taken together, participants in their twenties through forties accounted for approximately 63% of the sample, suggesting that the sustainable fashion field is predominantly led by mid-career professionals. Notably, no respondents selected "Prefer not to disclose" for this item, indicating a high degree of comfort with sharing age-related information within this population.

Gender

The sample was predominantly female (n = 49, 86.0%), with male respondents comprising 10.5% (n = 6) and one respondent identifying as non-binary (1.8%). Two participants (3.5%) preferred not to disclose. This gender distribution is consistent with broader patterns in the global fashion industry, where women hold a disproportionate share of design,

entrepreneurial, and sustainability-focused roles. The high female representation was anticipated and is acknowledged as a characteristic of the sample rather than a limitation.

Ethnicity

Participants were invited to select all applicable ethnic or racial identities. The most frequently selected category was American Indian or Alaska Native (n = 18, 32.1%), followed by Caucasian or White (n = 15, 26.8%) and Hispanic or Latino (n = 10, 17.9%). Asian respondents comprised 8.9% of the sample (n = 5), with Black or African American and Native Hawaiian or Pacific Islander each representing 3.6% (n = 2). It should be noted that the higher-than-expected frequency of the American Indian or Alaska Native category may reflect a limitation of the survey instrument: in earlier iterations of the survey, response options were fewer, and this category appeared first in the list, potentially influencing selection among Spanish-language respondents or those unfamiliar with U.S.-specific racial classification terminology. The underrepresentation of Asian respondents is acknowledged as a significant limitation, particularly given Asia's central role as the world's primary garment manufacturing region. This gap did not reflect a deliberate design exclusion—the study imposed no geographic restrictions, and outreach was conducted through international professional networks including LinkedIn groups, industry associations, and direct Instagram outreach to designers across multiple regions. Rather, it reflects the structural reality that the study's recruitment channels, language requirements, and professional network infrastructure were more accessible to North American and European designers than to those operating in Asian markets. The practical and methodological consequences of this limitation, including its implications for what the study's findings can and cannot claim, are addressed in the geographic scope discussion and the limitations section of Chapter 5.

Relationship Status

More than half of respondents reported being married (n = 29, 51.8%), with single participants comprising the second largest group (n = 19, 33.9%). Seven participants (12.5%) identified as being in a partnership, and two (3.6%) preferred not to disclose. No respondents indicated being separated, divorced, or widowed. The majority of participants were therefore in committed partnerships of some kind, which provides relevant context for understanding how relational and domestic circumstances may intersect with professional sustainability practice.

Children

Approximately half of respondents (n = 29, 51.8%) reported having no children, while 22 participants (39.3%) reported having one or two children. Three or more children were reported by two participants (3.6%), and four participants (7.1%) preferred not to disclose. The near-even split between those with and without children reflects a diverse domestic profile within the sample and was explored in the context of how family responsibilities intersected with participants' sustainability journeys during the interview phase of the study.

Education

The sample was highly educated: 94.6% of respondents had completed at least a bachelor's degree. Bachelor's degrees were held by 34 participants (60.7%), master's degrees by 18 (32.1%), and doctoral or professional degrees by 2 (3.6%). Two participants reported some college without a degree (3.6%), and one held an associate degree (1.8%). This educational profile is notable in the context of the study's use of experiential learning theory, as most participants possessed substantial formal educational foundations alongside the experiential and informal learning that characterized their sustainability development.

Company Size

The overwhelming majority of participants operated within micro- or small-scale enterprises: 64.3% (n = 36) worked in companies of 1–4 employees, and an additional 7.1% (n = 4) in companies of 5–9 employees. Together, approximately 71% of the sample worked in organizations with fewer than 10 people. Larger organizations (20+ employees) accounted for 23.2% (n = 13), with mid-size companies (10–19 employees) minimally represented. This distribution reflects the independent, entrepreneurial character of the sustainable fashion sector and was a defining feature of the purposive sampling strategy, which intentionally centered independent designers rather than corporate sustainability officers.

Professional Experience

Participants demonstrated a wide range of experience within the sustainable fashion field specifically, as well as within the broader fashion industry. Regarding sustainable fashion experience, the sample was evenly distributed across career stages: approximately 31% had been working in sustainable fashion for fewer than three years, while 46% reported seven or more years of experience and 25% reported fifteen or more years. This breadth was intentional, enabling the study to capture both early-career learning trajectories and long-established sustainability practices.

With respect to total fashion industry experience, the sample skewed toward greater seniority: 59% of respondents had been working in fashion for ten or more years, with 21% reporting twenty or more years and 10.5% reporting thirty or more. Early-career professionals (fewer than five years total) comprised approximately 19% of the sample. This distribution underscores that sustainable fashion practice, for many in this sample, emerged from substantial prior experience in the broader industry rather than as an initial career entry point.

Geographic Distribution

Respondents represented companies based across four global regions. The United States accounted for the largest share (n = 36, 62.1%), with particularly strong representation from New York (n = 13) and California (n = 6), reflecting the concentration of sustainable fashion entrepreneurship in these established fashion hubs. Europe contributed 17.2% of responses (n = 10), consistent with the region's recent regulatory emphasis on fashion sustainability. Latin America was represented primarily by Venezuela (n = 6), Colombia, and Mexico, accounting for 15.5% of the sample. Asia contributed 5.2% (n = 3, from Pakistan and Indonesia). No responses were received from Africa, Oceania, or Antarctica. The predominantly U.S.-based perspective is acknowledged as a geographic limitation, though the presence of international participants provides meaningful cross-regional comparison. A full demographic summary table is provided in Appendix C.

No restrictions were imposed based on gender, race, educational background, prior employment trajectory, or geographic origin, and the sample reflects variation across these characteristics. Deliberate attention was also given to representation across distinct sectors within fashion design, including apparel, accessories, jewelry, home goods, and textile design. Sectoral variation was analytically important because sustainability challenges differ meaningfully by material type, supply-chain configuration, and manufacturing infrastructure. Cross-case analysis ultimately did not reveal that sustainability persistence clustered within any particular product category, reinforcing the interpretation that developmental processes—experiential learning, relational reinforcement, and identity formation—are distributed across sectors rather than sector-specific.

Participants were recruited through a multi-channel outreach strategy drawing on the researcher's professional networks and formal organizational affiliations. A study announcement was distributed across approximately ten sustainability-, fashion-, and textile-focused LinkedIn groups as well as the researcher's personal LinkedIn profile. Professional organizations served as additional recruitment channels, including the International Textile and Apparel Association (ITAA), AIGA: The Professional Association for Design, Fashion Group International (FGI), and the Council of Fashion Designers of America (CFDA), the latter of which distributed the announcement via its membership listserv. Recruitment also extended to fashion and design programs at institutions where the researcher holds professional relationships through Supima, with announcements shared through faculty and program chairs at the Fashion Institute of Technology (FIT), the Fashion Institute of Design and Merchandising (FIDM), the Academy of Art University, California College of the Arts, Parsons School of Design, Pratt Institute, Rhode Island School of Design (RISD), the School of the Art Institute of Chicago (SAIC), and Drexel University. Approximately 300 additional designers were contacted through direct personal outreach via Instagram, identified through hashtag search and platform recommendation, with a small number of additional contacts added through participant referral. In total, the recruitment announcement reached an estimated 400 individuals through a combination of listserv distribution, platform posting, institutional outreach, and direct personal contact. Of this pool, 58 individuals completed the initial survey (see Appendix A for the full survey instrument).

The survey, administered via Qualtrics in both English and Spanish to broaden accessibility, collected demographic and professional background information including years in practice, educational background, enterprise scale, sourcing orientation, and self-described sustainability focus. In addition to serving as a screening mechanism to confirm eligibility, the

survey provided contextual data used to inform subsequent cross-case comparison. Participants who completed the survey were invited to indicate willingness to participate in a Critical Incident Questionnaire session; those who consented were scheduled via Calendly.

From the initial pool of 58 respondents, 32 participants completed a Critical Incident Questionnaire (CIQ) (see Appendix B; thematic analysis of all 32 CIQ participants is provided in Appendix E). All 32 CIQ sessions were conducted synchronously via Zoom, recorded with participant consent, and transcribed using Zoom's transcription feature with subsequent verification through Otter.ai. The CIQ invited participants to describe pivotal moments related to sustainability practice, including experiences of ethical tension, professional disruption, or significant reconsideration of practice. Rather than serving as a standalone analytic phase, the CIQ functioned as a bridging instrument (Keefer, 2009)—familiarizing the researcher with each participant's sustainability trajectory, guiding the development of interview probes, and supporting continuity across subsequent qualitative phases.

Following review of survey responses and CIQ submissions, a purposive subset of 18 designers was selected for in-depth semi-structured interviews. Of the 18 interview participants, 17 had previously completed the CIQ. One participant was selected directly from the survey pool based on the particular relevance of her professional profile to the study's analytic aims; in her case, CIQ elicitation was integrated into the opening phase of the interview session prior to proceeding with the semi-structured protocol, ensuring methodological consistency across all 18 participants. Selection aimed to capture variation in enterprise scale, years of experience, sourcing orientation, sector, and business model configuration.

All participants were offered confidentiality and anonymity prior to participation. Each participant chose to be identified by their initials in this table and throughout the chapter. Full

names and business names have been withheld to protect participant privacy. The composition of the interview sample is presented in Table 3.1, which summarizes participant initials, sectors, roles, years in practice, enterprise scale, primary sustainability focus, and geographic location.

Table 3.1

Interview Participant Characteristics (N = 18)

Initials	Sector	Role	Years in Practice	Scale	Sustainability Focus	Location
TP	Apparel	Director of Sustainability	7–10 yrs	Medium (20+)	End-to-end lifecycle	US Northeast
AI*	Apparel	Founder / CEO	1–3 yrs*	Micro (1–4)	Design-centered sustainability	US West Coast
SU	Consulting / Education	Founder / Professor	5–7 yrs	Micro (1–4)	Systems-level integration	US Northeast
AS	Apparel / Education	Assistant Professor	5–7 yrs	Large (20+)	Institutional sustainability	US Northeast
MD	Apparel / Education	Designer / Educator	7–10 yrs	Micro (1–4)	Ethical + inclusive design	US Northeast
RP	Jewelry	Founder / Designer	15+ yrs	Micro (1–4)	Full lifecycle sustainability	US Midwest
SBa	Apparel	Founder / CEO	5–7 yrs	Micro (1–4)	Production process innovation	US West Coast
CB	Apparel	Creative Director / Owner	5–7 yrs	Micro (1–4)	Design + material sourcing	US West Coast
YB**	Accessories	Founder / Designer	1–3 yrs**	Micro (1–4)	Materials + production	Europe

Table 3.1 (continued)

Initials	Sector	Role	Years in Practice	Scale	Sustainability Focus	Location
SS	Apparel / Textile	Designer	3–5 yrs	Micro (1–4)	Material-focused sustainability	Europe
SM	Education / Accessories	Associate Professor	5–7 yrs	Large (20+)	Sustainability pedagogy	US Northeast
HH	Apparel / Consulting	Consultant / Designer	10+ yrs	Small (5–10)	Ethical sourcing + systems	US / Global
SBr	Fashion Education	Educator	10+ yrs	Medium (20+)	Curriculum + sustainability	Bermuda
AK	Apparel	Designer / Founder	5–10 yrs	Micro (1–4)	Circular design practices	US Northeast
VO	Apparel	Designer / Entrepreneur	5–10 yrs	Small (5–10)	Craft-based + ethical production	US Midwest
AR	Apparel / Textile	Designer / Consultant	10+ yrs	Small (5–10)	Material innovation	US Midwest
CR	Home / Textile Goods	Founder	7–10 yrs	Micro (1–4)	Circular design + reuse	Europe
RD	Apparel	Designer / Educator	10+ yrs	Medium (20+)	Design + sustainability education	US West Coast

* AI's current independent venture was founded in 2021; however, her sustainability-oriented practice spans over a decade of prior industry experience in technical design, sustainable production systems, and 3D digital product development across multiple apparel enterprises.

** YB's current accessories enterprise was founded in 2022; however, her sustainability-oriented practice draws on over a decade of prior experience in aquaculture science, sustainable fish farming development, and ecological systems consulting.

Enterprise scale: Micro = 1–4 employees; Small = 5–10; Medium = 11–20; Large = 20+.

After preliminary coding of interview data, two focus group sessions were convened to examine convergence and divergence across emergent themes. Seven interview participants engaged in focus group dialogue across the two sessions, with one participant attending both. The focus groups functioned not as independent primary data sources but as triangulation mechanisms: participants were invited to respond to provisional analytic summaries developed from preliminary coding, confirming, complicating, or challenging emergent patterns. This design strengthened analytic credibility by situating interpretation within collective reflection among participants already represented in the interview dataset.

The final analytic sample comprised 58 initial survey respondents, 32 CIQ participants, 18 in-depth interview participants, and 7 focus group participants across two sessions (with one participant attending both sessions, yielding 8 total participations). All interview participants met the study's inclusion criterion of at least five years of sustained sustainability-oriented professional practice within ongoing operating enterprises. While demographic variables were not used as primary analytic categories, they were documented and examined during cross-case comparison to assess whether sustainability persistence clustered around particular characteristics. No significant clustering patterns were observed, reinforcing the study's emphasis on experiential and relational processes as the primary drivers of sustainability development.

Purposive sampling was selected because the study sought insight from designers who had maintained sustainability practice over time rather than from a broad cross-section of fashion professionals (Creswell, 2013). Random sampling would not have ensured inclusion of participants meeting the five-year threshold, nor access to individuals able to articulate the experiential and developmental dimensions central to the inquiry. Purposive selection therefore

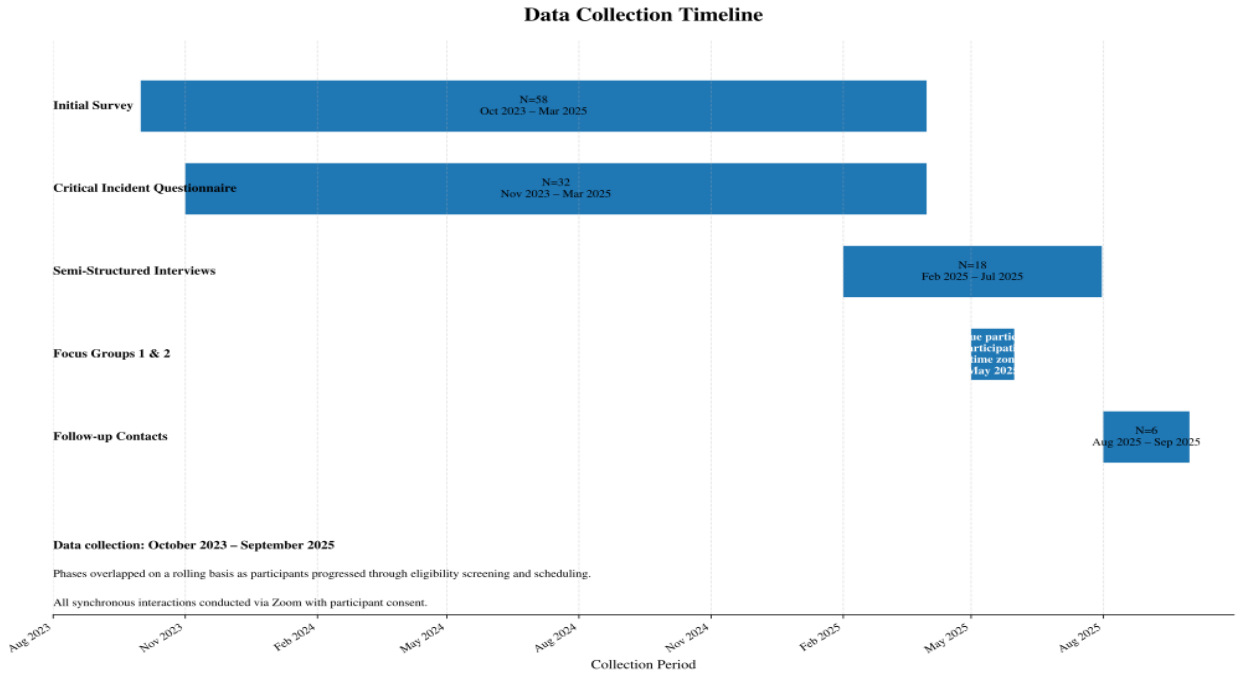
aligned with the study's interpretive aims, prioritizing analytic richness over numerical generalizability.

Data Collection Procedures

Data collection proceeded in sequential phases designed to progressively deepen inquiry while allowing for analytic refinement across stages. The multi-phase structure encompassed five phases: an initial survey, a Critical Incident Questionnaire phase, in-depth semi-structured interviews, two focus group sessions, and targeted follow-up contacts with a subset of participants responding to evolving policy and market conditions. All synchronous interactions were conducted via Zoom and recorded with participant consent.

Figure 3.1

Data Collection Timeline: October 2023–September 2025



Note. Phases overlapped on a rolling basis as participants progressed through eligibility screening and scheduling. All synchronous interactions were conducted via Zoom with participant consent.

As noted in the Participant Selection and Sampling Strategy section, data collection spanned October 2023 through September 2025. Phases were conducted on a rolling basis as participants progressed through eligibility screening and scheduling. This extended duration allowed examination of sustainability practice across shifting market conditions, including post-pandemic supply-chain volatility and evolving regulatory contexts affecting fashion production.

The initial survey was administered in both English and Spanish to broaden accessibility. Of the 58 total respondents, 52 completed the survey in English and 6 in Spanish. All subsequent interviews and focus group sessions were conducted in English based on participant preference and scheduling feasibility. The bilingual survey design supported inclusivity at the recruitment stage while maintaining analytic coherence across subsequent qualitative phases.

Phase One: Initial Survey

An electronic survey was distributed to designers responding to the call for participation, and 58 individuals completed it. The survey served two primary purposes: confirmation of eligibility according to inclusion criteria and collection of demographic and contextual data to inform cross-case comparison. Items addressed years of ongoing business operation, educational background, enterprise scale, sourcing orientation, and self-described sustainability focus. The survey was not treated as a standalone instrument but as contextual scaffolding for qualitative inquiry. The full survey instrument is provided in Appendix A.

Phase Two: Critical Incident Questionnaire (CIQ)

Following survey completion, 32 participants completed a Critical Incident Questionnaire (CIQ) (Appendix B). All 32 CIQ sessions were conducted synchronously via Zoom, recorded with participant consent, and transcribed using Zoom's transcription feature with subsequent verification through Otter.ai. Of the 32 CIQ participants, 17 were among the 18 subsequently

selected for in-depth interviews; the remaining 14 participated in the CIQ phase only. The CIQ invited designers to describe specific sustainability-related experiences, including moments of ethical tension, professional disruption, or significant reconsideration of practice (Keefer, 2009). The CIQ functioned as a bridging instrument: it familiarized the researcher with each participant's sustainability trajectory, surfaced events warranting deeper exploration in subsequent interviews, and supported continuity across qualitative phases.

Phase Three: In-Depth Semi-Structured Interviews

Eighteen participants were selected for in-depth semi-structured interviews. All 18 had completed CIQ-equivalent elicitation—17 through the formal CIQ phase, and one through an integrated CIQ elicitation conducted at the opening of her interview session. Interviews were conducted via Zoom at mutually agreed times, ranged from approximately 60 to 90 minutes in duration, and were audio recorded and transcribed with participant consent. Transcripts were generated using Zoom's transcription feature and verified through Otter.ai.

The interview protocol explored sustainability trajectories across several domains: pathways into sustainability-oriented practice, challenges and supports encountered over time, skill development, responses to market and policy shifts, and evolving professional identity. While the protocol provided structured thematic areas, interviews remained flexible to allow participants to elaborate on emergent dimensions of their experience. The semi-structured interview guide is included in Appendix D.

Phase Four: Focus Group Sessions

Following preliminary coding of interview data, two focus group sessions were convened to examine convergence and divergence across emerging analytic patterns. Seven interview participants engaged in focus group dialogue across the two sessions, with one participant

attending both. Both sessions were conducted via Zoom, audio recorded, and transcribed with participant consent using the same procedures applied to individual interviews. Each session presented provisional analytic themes and invited participants to confirm, complicate, challenge, or extend these interpretations (Krueger & Casey, 2015). The focus group facilitation guide is included in Appendix F.

Phase Five: Follow-Up Contacts

Following the completion of individual interviews and preliminary analysis, 5 of the 18 interview participants volunteered follow-up sessions; the remaining 13 did not participate in this phase. These follow-ups were initiated in response to significant contextual shifts occurring during the data collection period, including changes in U.S. trade policy, tariff developments, and ongoing supply-chain volatility, all of which had direct implications for participants' sustainability practices. Four follow-up sessions were conducted via Zoom and audio recorded and transcribed with participant consent; one participant responded in writing via email. The follow-up protocol is included in Appendix G.

Recording and Transcription Procedures

All synchronous interactions—CIQ sessions, individual interviews, focus group sessions, and Zoom-based follow-up contacts—were audio recorded with explicit participant consent. Recordings were automatically transcribed using Zoom's transcription feature and subsequently reviewed using Otter.ai to confirm accuracy and correct transcription errors. The researcher reviewed all transcripts while listening to corresponding audio recordings to verify fidelity and clarify technical terminology specific to fashion production processes. The one follow-up conducted via email was incorporated directly into the analytic corpus as written text.

Participants were offered the opportunity to review their transcripts or executive summaries, as described in the Researcher Positionality and Reflexivity section.

Data Management and Storage

All digital recordings and transcripts were stored on password-protected devices and in secure cloud storage accessible only to the researcher, in accordance with IRB data security requirements (Protocol #23-077). Identifying information was removed during transcription review, and participant initials were assigned for analytic and reporting purposes, as documented in Table 3.1. Focus group participants were informed that while the researcher would maintain confidentiality in all reporting, confidentiality among group members could not be guaranteed, and participants were reminded of this at the opening of each session.

Data Analysis Procedures

Data analysis proceeded concurrently with data collection and followed an iterative, inductive process supported by NVivo qualitative data analysis software (Nowell et al., 2017). The analytic objective was to identify patterned meaning structures across participants' accounts while preserving contextual nuance. NVivo served as a data management and organizational platform—enabling systematic coding, hierarchical node development, query-based comparison, and documentation of analytic decisions. Interpretive judgment, however, remained grounded in close reading of transcripts, analytic memoing, and recursive engagement with participants' narratives rather than in software-generated outputs.

Data Preparation and Management

All 18 interview transcripts, 32 CIQ transcripts, and 2 focus group transcripts—generated via Zoom and verified through Otter.ai—were imported into NVivo as a unified dataset. Each participant's transcript was assigned case classifications within NVivo, linking demographic and

enterprise variables (years in practice, enterprise scale, gender, business model, educational background, sector, and geographic location) to coded data segments. This structure enabled cross-case comparisons throughout analysis, with the demographics documented in Table 3.1 serving as the organizational backbone for matrix queries conducted in later analytic stages.

Following import, the researcher engaged in sustained immersive reading of all transcripts prior to any formal coding. This initial pass allowed recurrent concepts, critical incidents, and descriptive patterns to surface organically. Particular attention was given to participants' descriptions of pivotal professional moments, sourcing decisions, value trade-offs, and accounts of learning through practice—themes that had emerged in CIQ sessions and now warranted deeper exploration across the full interview dataset (Keefer, 2009).

First-Cycle Coding and Peer Review

Analysis began with first-cycle open coding of all interview and focus group transcripts (Miles et al., 2014). Provisional codes were created to reflect participants' own language (in vivo codes) as well as descriptive representations of actions, tensions, identity articulations, and operational conditions. Coding during this phase was intentionally expansive: segments were coded in small meaning units to capture the full range of participant experience, including experiential disruption, skill acquisition, relational learning, evaluative judgment, and responses to material and economic constraint. Approximately 120 provisional codes were generated across the dataset, reflecting the granularity and diversity of participant accounts. A sample of first-cycle coded transcript segments is provided in Appendix O; a full listing of the 120 provisional codes is provided in Appendix N.

Analytic memos were written alongside coding throughout this phase to document interpretive observations, emerging questions, and preliminary linkages between codes. These

memos formed part of the study's audit trail and supported reflexive awareness during subsequent consolidation. A sample analytic memo is provided in Appendix P.

To strengthen the dependability of the coding process and mitigate the potential influence of the researcher's professional embeddedness in the fashion industry, a research peer was engaged as an independent coder during the open coding phase. The peer coder—a Clinical Associate Professor and experienced research methodologist in medical sciences and education—applied the emerging codebook to excerpts drawn from three interview transcripts, selected to represent variation in participant role, sustainability entry pathway, and thematic range. Her disciplinary distance from fashion and sustainability was intentional: engaging a coder without prior investment in the subject matter reduced the risk of insider assumptions shaping code application (Creswell, 2013). Discrepancies were reviewed systematically and resolved through real-time consensus discussions conducted via phone, with disagreements prompting refinement of provisional node boundaries. For example, a segment in which CR described absorbing costs the market refused to validate was initially coded by the peer coder as 'economic constraint' and by the primary researcher as 'values-practice tension'; consensus discussion resulted in dual-coding the segment under both nodes."

Focused Coding and Hierarchical Node Development

As first-cycle coding progressed, provisional codes were examined for conceptual overlap and recurrence across participants. Through iterative comparison and consolidation, the approximately 120 open codes were refined into approximately 30 focused categories; the complete hierarchical coding pathway is provided in Appendix M. For example, discrete codes such as small-batch sourcing barrier, supplier inaccessibility, and MOQ challenges were grouped into a focused category of supply chain constraints. Codes reflecting values vs. survival trade-

off, ethical compromise, and pricing pressure were consolidated into economic and ethical tension. This consolidation process was guided by conceptual coherence and recurrence across cases rather than by frequency alone. The 30 focused categories are listed in Appendix T.

The 30 focused categories were subsequently organized into a final hierarchical structure consisting of three primary thematic domains and 15 subthemes. Each domain contained between four and six subthemes representing recurring dimensions of participant experience across the dataset. Context-specific conditions—most notably the COVID-19 pandemic—were initially coded as discrete disruptions but were analytically integrated as cross-cutting amplifiers of existing structural constraints rather than constituting an independent thematic category. This decision is documented in Table 3.2 and discussed further in the Thematic Stabilization section below.

The final hierarchical coding structure is summarized in Table 3.2 below. The full expanded codebook, including node definitions and representative transcript segments, is provided in Appendix R.

Table 3.2

Final Hierarchical Coding Structure: Three Thematic Domains, Fifteen Subthemes, Analytic Dimensions, and Theoretical Mapping (N = 18)

Thematic Domain & Subtheme	Analytic Dimension (Challenges / Supports)	Representative Codes	Theoretical Authors (Inductive → Deductive)	Analytic Note
Domain 1: Experiential Learning and Meaning-Making				
1.1 Disorienting experiences and ethical tension	Challenge: Value-practice misalignment; ethical friction	values conflict; sustainability realization moments; ethical discomfort	Hoggan & Finnegan (2023); Brookfield (1995)	Entry point to sustainability trajectory; catalytic disruption
1.2 Reflective meaning-making	Support: Reflective capacity as adaptive resource	reframing design purpose; critical reflection; meaning construction	Boud et al. (1985); Schön (1983); Dewey (1938)	Transforms disruption into learning; identity bridge
1.3 Iterative recalibration of practice	Challenge: Ongoing instability; no resolution point	ongoing adjustment; redesign cycles; practice revision	Kolb (1984); Argyris & Schön (1974)	Non-linear learning cycle; recurrent throughout practice
1.4 Ongoing learning trajectories	Support: Cumulative experience as professional capital	learning through doing; cumulative adaptation; experiential accumulation	Fenwick (2003); Kolb (1984); Tennant (2019)	Long-arc developmental learning; deepens over time
Domain 2: Structural Constraints and Adaptive Practice				
2.1 Supply chain and material constraints	Challenge: Sourcing barriers; MOQ inaccessibility	sourcing barriers; MOQ limitations; supplier inaccessibility	Karell & Niinimäki (2020); Niinimäki & Czajkowski (2024)	Most frequently cited constraint; cross-sector pattern
2.2 Economic and cost pressures	Challenge: Margin compression; pricing-sustainability tension	pricing constraints; margin compression; cost-benefit tension	Rahbek & Pedersen (2015); England (2024)	Intersects with values vs. survival trade-off (D1/ST1.1)

Table 3.2 (continued)

Thematic Domain & Subtheme	Analytic Dimension (Challenges / Supports)	Representative Codes	Theoretical Authors (Inductive → Deductive)	Analytic Note
2.3 Iterative adaptation and workarounds	Support/Challenge: Pragmatic solutions within limits	workaround strategies; compromise solutions; adaptive responses	Argyris & Schön (1974); Hondzel & Hansen (2015)	Adaptive practice under constraint; partial sustainability
2.4 Bounded experimentation	Challenge: Risk aversion; resource scarcity limits innovation	limited innovation scope; risk management; constrained creativity	Biesta & Tedder (2007); Fenwick (2003)	Small-scale testing within structural limits
2.5 Network and community support	Support: Peer collaboration; knowledge sharing	peer collaboration; knowledge exchange; community-supported practice	Wenger (1998); Biesta & Tedder (2007)	Critical persistence mechanism; reduces isolation
2.6 COVID-19 as structural amplifier*	Challenge: Pandemic as cross-cutting disruptor	pandemic supply disruption; market instability; production delays	Brydges et al. (2020); Kim & Woo (2021); Teodoro & Rodriguez (2020)	Integrated into ST 2.1 and 2.2; not standalone theme
Domain 3: Identity Development, Skill Acquisition, and Agency				
3.1 Identity formation	Support: Sustainability as core professional identity	sustainability identity; designer self-concept; professional identity integration	Wenger (1998); Tennant (2019)	Stabilizes commitment across structural disruption
3.2 Skill development	Support: Technical and relational competencies	sourcing knowledge; material literacy; technical skill building	Schön (1983); Kolb (1984)	Developed through practice; not pre-existing

Table 3.2 (continued)

Thematic Domain & Subtheme	Analytic Dimension (Challenges / Supports)	Representative Codes	Theoretical Authors (Inductive → Deductive)	Analytic Note
3.3 Ethical decision-making	Challenge/Support: Navigating trade-offs and value hierarchies	trade-off negotiation; value prioritization; ethical navigation	Tronto (1993); Brookfield (1995)	Recurrent; sharpens with experience
3.4 Bounded agency	Challenge/Support: Constrained but generative decision-making	constrained decision-making; structural limits; agency within constraint	Biesta & Tedder (2007); Karell & Niinimäki (2020)	Reframed as generative in focus groups
3.5 Practice stabilization	Support: Long-term consolidation of sustainability commitment	long-term positioning; business model refinement; sustained commitment	Wenger (1998); Argyris & Schön (1974)	Distinguishes sustained from early-stage practitioners

* COVID-19 (Subtheme 2.6): Pandemic-related disruptions were analytically integrated as cross-cutting amplifiers of existing structural constraints rather than an independent thematic category. Represented here to maintain transparency of the analytic process.

Analytic Dimensions column identifies whether each subtheme primarily reflects a Challenge (structural barrier), Support (enabling resource), or both—directly mapping to the study's research questions about what challenges and supports shape sustainability persistence.

Theoretical Authors column maps confirmed sources from Chapters 2 and 3. Inductive coding (grounded in participant data) preceded deductive integration (theoretical alignment), consistent with the analytic sequence described in this section.

Total subthemes: 15 across three domains (Domain 1: 4; Domain 2: 6 including COVID-19 amplifier; Domain 3: 5).

Cross-Case Comparison and Matrix Analysis

The three thematic domains emerged through systematic cross-case comparison of all interview and focus group transcripts. As codes were examined within and across participants, patterned clusters became increasingly visible, enabling the consolidation of focused categories into broader domains. NVivo's matrix coding query function was central to this process, generating structured displays of code presence and frequency across participants and enterprise variables.

Three matrices were constructed to support cross-case analysis, each corresponding to one thematic domain. Matrix A (Participant × Experiential Learning Indicators) mapped the presence of Domain 1 subthemes across all 18 participants. Matrix B (Participant × Structural Constraint Types) mapped Domain 2 subthemes across participants and enterprise scale categories. Matrix C (Participant × Identity and Agency Indicators) mapped Domain 3 subthemes across participants, years in practice, and sector. These three matrices are presented and named explicitly in Chapter 4 alongside the thematic findings they informed.

Matrix queries were used not to produce statistical inference but to assess pattern recurrence and distribution. The analyses did not reveal consistent demographic clustering in relation to sustainability persistence. While enterprise scale influenced the types of constraints participants encountered, sustainability commitment and identity development appeared distributed across demographic categories.

Negative Case and Divergence Analysis

Coding summaries facilitated identification of cases that diverged from dominant patterns. Rather than treating divergent accounts as anomalies, the analysis examined them as analytic opportunities—occasions to test whether emerging themes were robust or required

refinement (Lincoln & Guba, 1985). For example, while the dominant pattern across participants reflected ongoing commitment to sustainability despite operational constraint, several participants described deliberate decisions to compromise or temporarily suspend specific sustainability practices under acute financial pressure. These divergent accounts led to refinement of node definitions rather than abandonment of themes, ultimately producing thematic boundaries that more accurately reflected the full range of participant experience. Specific negative case examples are discussed in the relevant thematic sections of Chapter 4.

Focus Group Triangulation

Following preliminary thematic consolidation, two focus group sessions were conducted with seven interview participants (AS, AI, CR, MD, RP, SS, YB) with one participant (YB) attending both. Focus group transcripts were coded within the existing hierarchical structure—using the same three-domain, 15-subtheme framework—allowing direct comparison between individual interview data and collective dialogue. Participants were presented with provisional thematic summaries and invited to confirm, complicate, or challenge interpretations. In one instance, participants collectively pushed back on the framing of bounded agency as primarily constraining, noting that within-constraint decision-making was also experienced as generative and professionally formative—a distinction that refined the subtheme's definition and enriched its representation in Chapter 4.

Thematic Stabilization and Domain Development

Final thematic domains were considered stabilized when they demonstrated three conditions: patterned recurrence across interview participants, conceptual coherence within and across subthemes, and confirmation or productive complication within focus group dialogue. The three domains that met these conditions were: Domain 1—Experiential Learning and Meaning-

Making, which captures how designers develop sustainability knowledge through lived professional disruption and reflective practice; Domain 2—Structural Constraints and Adaptive Practice, which documents the material, economic, and relational conditions within which sustainability practice is negotiated; and Domain 3—Identity Development, Skill Acquisition, and Agency, which traces how consistent sustainability engagement shapes professional self-concept, expertise, and decision-making capacity over time.

Theoretical integration with adult learning and sustainability scholarship—drawing on Kolb (1984), Boud et al. (1985), and Wenger (1998)—occurred only after thematic stabilization was complete, in order to avoid imposing theoretical categories during inductive coding. The relationship between empirical themes and theoretical frameworks is developed in Chapter 5.

Strategies for Trustworthiness

Trustworthiness in this study was not anchored in a single technique but in the layered integration of prolonged engagement, systematic coding, cross-case comparison, participant validation, peer review, and documented analytic refinement (Lincoln & Guba, 1985). The four criteria of credibility, dependability, confirmability, and transferability were addressed throughout the research process rather than applied as post hoc verification. The following subsections describe the specific strategies employed under each criterion.

Credibility

Credibility refers to confidence that findings accurately represent participants' lived experiences rather than researcher projection (Lincoln & Guba, 1985). Several layered strategies were employed to strengthen credibility in this study.

Prolonged engagement across an extended data collection period spanning October 2023 through September 2025 allowed sustained contact with participants across evolving market and

policy contexts. This duration reduced the risk of capturing only momentary reactions and enabled examination of sustainability practice across time, including participants' responses to the post-pandemic supply chain environment and subsequent trade policy shifts.

Triangulation was achieved at three levels. At the data level, interviews, CIQ transcripts, focus group dialogue, and follow-up contacts were compared to assess consistency and divergence across sources. At the methodological level, individual narrative accounts were examined alongside collective focus group dialogue, allowing the researcher to distinguish patterns that held across both individual and group communicative contexts from those that appeared in only one. At the analytic level, NVivo matrix queries—described in detail in the Data Analysis Procedures section—examined pattern recurrence across demographic and enterprise variables, confirming that thematic interpretations reflected distributed patterns rather than isolated cases.

Focus group sessions were particularly important in strengthening credibility. Participants were presented with provisional thematic summaries and invited to confirm, complicate, or challenge emerging interpretations. Where participants introduced nuance or disagreement, thematic language and node definitions were revised accordingly.

Member validation through executive summaries further strengthened credibility. As described in the Researcher Positionality and Reflexivity section, the researcher prepared individual written summaries for each of the 32 CIQ sessions and each of the 18 interviews, returning them to participants for review, clarification, or elaboration. Where participants provided corrections or additional context, revisions were incorporated into the analytic record (see Appendix K for a sample CIQ executive summary; Appendix L for a sample interview executive summary).

Dependability

Dependability refers to the stability, consistency, and traceability of analytic procedures over time. In this study, dependability was supported through systematic documentation of analytic decisions, structured data management within NVivo, peer coding review, and iterative refinement of thematic categories across multiple phases of analysis.

As described in the Data Analysis Procedures section, a research peer—a Clinical Associate Professor and experienced research methodologist—independently applied the emerging codebook to excerpts from three interview transcripts during the open coding phase. Discrepancies were resolved through real-time consensus discussions, with disagreements prompting refinement of provisional node boundaries.

All transcripts were imported into NVivo and organized using case classifications linking participant characteristics to coded segments. The coding process evolved through identifiable stages—from approximately 120 open codes to 30 focused categories to 3 thematic domains and 15 subthemes—with decisions to merge, redefine, or differentiate nodes documented through analytic memos. The expanded codebook in Appendix R provides a visible record of this progression.

The multi-phase design further supported dependability. Patterns identified in interviews were examined again during focus group analysis using the same unified coding framework. Cross-case matrix queries served as periodic stability checks, confirming whether patterns recurred across cases or required conceptual refinement.

Confirmability

Confirmability refers to the extent to which findings reflect participants' perspectives and the data rather than researcher bias (Lincoln & Guba, 1985). In interpretive inquiry,

confirmability does not require the elimination of researcher perspective but rather the transparent documentation of how that perspective was managed throughout the research process.

Several procedures supported confirmability in this study. Analytic memos written throughout data collection and analysis documented interpretive decisions, emerging questions, and the rationale for coding choices, creating an audit trail that allows the analytic pathway to be traced and evaluated. Negative case analysis examined instances of divergence from dominant patterns, ensuring that thematic boundaries reflected the full range of participant experience rather than selective emphasis on confirming cases.

The researcher's reflexive practices, described in the Researcher Positionality and Reflexivity section, also contributed to confirmability. The use of a peer coder with disciplinary distance from fashion and sustainability introduced an external perspective specifically designed to surface assumptions the researcher might otherwise have naturalized. Member validation through executive summaries provided a further check, inviting participants to assess whether the researcher's interpretive representations accurately reflected their accounts.

Transferability

Transferability refers to the extent to which findings may be meaningfully interpreted or applied in contexts beyond the immediate study (Lincoln & Guba, 1985). This study does not claim statistical generalizability. Rather, it provides thick description of sustainability-oriented development within independent fashion entrepreneurship—detailed accounts of enterprise scale, sourcing challenges, operational constraints, identity development, and adaptive strategies that allow readers to assess applicability to comparable contexts.

The participant profiles presented at the conclusion of this chapter and the demographics documented in Table 3.1 contribute to transferability by making the study's population, its variation, and its boundaries visible to readers. While participants were purposively sampled and limited to designers with at least five years of sustained sustainability-oriented professional practice within ongoing operating enterprises, the developmental processes identified—experiential learning, relational reinforcement, and bounded agency—may resonate across creative and sustainability-oriented professions operating under similar structural conditions.

The extended data collection period from October 2023 through September 2025 further enhanced transferability by situating findings within a dynamic economic and regulatory environment. Readers may evaluate the relevance of these findings to comparable periods of market volatility, policy transition, or structural disruption in other creative industries.

Ethical Considerations

Ethical oversight for this study was obtained through approval by the Institutional Review Board (IRB) at Teachers College, Columbia University (Protocol #23-077) prior to the initiation of data collection. IRB Approval letter is provided in Appendix I. All research activities were conducted in accordance with institutional and federal guidelines governing research involving human subjects. Ethical considerations were embedded throughout the research design, recruitment process, data collection procedures, and analytic phases.

Participation across all phases of the study was voluntary. During the initial survey stage, participants provided electronic consent after reviewing a description of the study's purpose, procedures, estimated time commitment, confidentiality protections, and contact information for both the researcher and the IRB (consent language included in Appendix A). Participants selected for in-depth interviews received a formal IRB-approved informed consent document

outlining recording procedures, potential risks and benefits, rights to withdraw, and confidentiality safeguards. Consent was obtained prior to recording any session.

Because focus groups involve collective dialogue, a separate consent form was developed specifically for focus group participants (Appendix H). This document addressed the distinct ethical considerations of group settings, including the limits of confidentiality among participants. While the researcher committed to de-identification of transcripts and use of participant initials in all reporting, participants were informed that confidentiality among group members could not be guaranteed. At the start of each session, participants were reminded to respect one another's privacy. The consent form also allowed participants to indicate whether their company or organization name should be excluded from research findings.

To protect participant confidentiality, all participants were offered anonymity, and each chose to be identified by their initials in reporting and analysis, as documented in Table 3.1. Full names and business names have been withheld. When describing enterprise characteristics in subsequent chapters, care was taken to avoid presenting combinations of contextual details that could reasonably identify a specific individual or company. All digital recordings and transcripts were stored on password-protected devices and secure cloud storage accessible only to the researcher.

Given the researcher's professional background in fashion and sustainability consulting, particular attention was paid to clarifying role boundaries. Recruitment materials and interview framing emphasized that participation was connected solely to doctoral research and not to consulting services or professional evaluation. The researcher did not recruit individuals in active supervisory or direct consulting relationships. Throughout interviews and focus groups, the

purpose of the study was framed as exploratory rather than evaluative to reduce any normative pressure associated with sustainability discourse.

The initial survey was made available in both English and Spanish to broaden accessibility at the recruitment stage. All synchronous interactions—including CIQ sessions, interviews, focus group sessions, and Zoom-based follow-up contacts—were recorded with explicit participant consent, and transcripts were generated and verified for accuracy prior to analysis.

The study was assessed as involving minimal risk. Discussions centered on professional experiences, sustainability practices, and business decision-making. While participants occasionally described ethical tension or financial strain, they retained the right to decline any question or withdraw at any time. No financial compensation was provided, reducing the possibility of coercion.

In sum, ethical integrity was supported through formal IRB oversight, differentiated consent procedures tailored to individual and group participation, confidentiality safeguards, secure data management, and explicit role boundary clarification between the researcher's doctoral and consulting identities. These measures ensured that the study was conducted with respect for participant privacy, voluntariness, and the professional autonomy of all who contributed to the inquiry.

Limitations of the Study

As an interpretive qualitative inquiry, this study is bounded by clearly defined methodological and contextual parameters. These boundaries shape the scope of interpretation and clarify the conditions under which the findings should be understood.

The sampling strategy prioritized sustainability-oriented fashion professionals with a minimum of five years of sustained engagement in the field. While the original intent centered on independent, founder-led enterprises, the final sample included a small number of participants employed within larger fashion organizations, as well as two participants whose current independent ventures were founded within the five-year window but whose sustainability-oriented practice drew on a decade or more of prior professional experience—as documented in the Table 3.1 footnotes. This variation introduced differences in structural autonomy and decision-making authority. Accordingly, findings primarily reflect sustainability development within entrepreneurial or small-scale settings rather than large corporate infrastructures.

The overall sample size was appropriate for in-depth qualitative analysis but limited in breadth. Fifty-eight individuals completed the initial survey, 32 participated in the CIQ phase, 18 completed in-depth interviews, and 7 participated in focus groups across two sessions. While sufficient for identifying patterned developmental processes, the study does not claim statistical generalizability. Instead, it offers analytic insight grounded in recurrence across cases.

Geographic representation further defines the interpretive scope. Although the study was framed globally, survey data indicate a strong predominance of participants located in the United States, with Europe representing a secondary cluster. Participation from Asia was limited — comprising only 5.2% of survey respondents — despite Asia's central role as the world's primary site of garment manufacturing and one of the regions most acutely affected by the ecological and labor consequences of the global fashion system. Representation from Africa, Oceania, and other regions was minimal. This geographic concentration is not a neutral sampling outcome. Sustainability-oriented practice in South and Southeast Asia, in the communities where fashion is produced rather than designed, involves different structural conditions, different forms

of learning, and different stakes than the Western entrepreneurial contexts this study primarily documents. As a result, findings reflect primarily Western entrepreneurial and regulatory contexts — and the study's account of how sustainability is learned and sustained must be understood as bounded by that geography. A study centered on practitioners in major production regions would not simply add data points to this account; it would likely tell a fundamentally different story about what sustainability-oriented practice requires, what it costs, and what it means.

Enterprise scale also shapes interpretation. The majority of participants operated within small teams, with approximately 75% working in companies of fewer than ten employees. While small-scale enterprises represent a significant segment of sustainability-oriented fashion practice, caution should be exercised in extending these findings to highly industrialized or vertically integrated systems.

Demographic distribution further delineates the study's boundaries. Participants were predominantly female and highly educated. Although this composition aligns with patterns observed in sustainability-oriented creative entrepreneurship, it limits insight into gender diversity and educational variation across the broader industry.

The linguistic structure of the study warrants acknowledgment. While the survey was offered in both English and Spanish to broaden recruitment accessibility, all interviews and focus groups were conducted in English. This may have constrained participation among non-English-speaking designers and may have introduced a selection effect: designers who completed the survey in Spanish but did not proceed to interview phases may represent sustainability practices and perspectives that differ meaningfully from the English-speaking majority.

Methodologically, the study relied on self-reported narratives. Participants' accounts were retrospective and interpretive, reflecting how they understood and made meaning of their sustainability trajectories at the time of participation. The research did not independently verify sustainability metrics, financial records, or supply-chain documentation. It is worth noting, however, that the Critical Incident Questionnaire design partially addressed this limitation by anchoring participants' accounts in concrete, specific professional events rather than generalized retrospective reflection alone.

Finally, the temporal context of data collection—spanning October 2023 through September 2025—coincided with ongoing post-pandemic economic disruption, supply-chain volatility, and increased regulatory attention to sustainability in fashion. Participants' accounts of adjustment and persistence are situated within this dynamic environment. Sustainability development during periods of relative market stability may present differently.

Taken together, these limitations define the interpretive frame of the study rather than diminish its analytic contribution. The findings offer in-depth insight into sustainability-oriented development within predominantly small-scale, Western, highly educated, and largely female-led fashion enterprises operating during a period of market transition. Readers are invited to assess the applicability of these insights within comparable contexts while recognizing the bounded scope from which they emerge.

Participant Profiles

The following profiles introduce each of the 18 interview participants using their assigned initials. Each profile situates the participant's professional background, sustainability orientation, and distinctive contribution to the study's analytic aims. Together, these profiles

provide the human context through which the findings presented in Chapter 4 should be understood.

TP brings nearly a decade of experience leading sustainability initiatives within established apparel organizations, working at the intersection of design, sourcing, and end-of-life product strategy. Operating within a medium-scale enterprise, her work has engaged sustainability across the full product lifecycle—from materials selection through post-consumer outcomes—navigating the particular demands of larger organizational structures. What distinguished her contribution to this study was her ability to translate sustainability across complex systems while remaining grounded in practical product realities.

AI is the founder of a Los Angeles-based enterprise focused on digital product creation and sustainable production systems for the apparel industry. While her current venture was founded in 2021, her sustainability-oriented practice spans over a decade of industry experience in technical design, 3D digital product development, and production consulting across major apparel enterprises. What distinguished her contribution was the technical sophistication of her sustainability knowledge—particularly her work translating design into production through 3D tools and digital workflows as a pathway to reducing material waste.

SU operates at the intersection of consulting and higher education, bringing several years of experience supporting sustainability integration across design practice and curriculum development. As both a founder and professor, her work extends beyond individual enterprise boundaries to engage systems-level thinking and interdisciplinary collaboration across institutional and professional contexts. What distinguished her contribution was her capacity to connect sustainability across education, consulting, and applied practice simultaneously.

AS is an assistant professor whose work bridges fashion education and sustainability practice within a large academic institution. With several years of experience developing sustainability-focused pedagogy and institutional initiatives, her practice emphasizes the translation of sustainability principles into both curricular frameworks and operational decisions at an organizational level. What distinguished her contribution was her focus on embedding sustainability into institutional structures rather than individual design choices.

MD operates a micro-scale apparel enterprise while maintaining parallel teaching engagements, bringing seven to ten years of experience developing a sustainability-oriented design practice grounded in ethical production and inclusive design principles. Her work reflects a values-driven approach in which social responsibility and accessibility are understood as integral dimensions of sustainability rather than secondary considerations. What distinguished her contribution was the clarity and consistency of her ethical stance—particularly her commitment to inclusivity as an inseparable component of sustainable practice.

RP is an independent jewelry designer with over 15 years of sustained practice. Operating a micro-scale enterprise, her work reflects a comprehensive approach to sustainability spanning the full product lifecycle, from material sourcing through design, production, and post-consumer considerations. What distinguished her contribution was the longevity and consistency of her sustainability engagement—offering one of the study's deepest longitudinal perspectives on how sustainability commitments are maintained and refined over time.

SBa is the founder and CEO of a micro-scale apparel enterprise with five to seven years of experience focused on sustainable production processes and operational innovation. Her approach is grounded in practical intervention at the manufacturing level, emphasizing process improvement as the primary mechanism through which small enterprises can reduce

environmental impact. What distinguished her contribution was her emphasis on production systems as the entry point for sustainability.

CB is a creative director and owner of an independent apparel brand with five to seven years of experience integrating sustainability into both design direction and material sourcing decisions. Her practice reflects the dual responsibility of small enterprise leadership: maintaining a coherent creative vision while making responsible material and production choices within constrained resources. What distinguished her contribution was her account of navigating the tension between creative direction and responsible sourcing.

YB is the founder of a Kyiv-based luxury accessories brand producing goods from genuine fish leather—a byproduct material derived from the aquaculture industry. Her sustainability practice is rooted in a background spanning aquaculture consulting, sustainable fish farming development, and scientific research at the Institute of Fisheries of the National Academy of Sciences of Ukraine. What distinguished her contribution was her resourcefulness in transforming an ecological systems background into a fashion practice—offering a rare perspective on material innovation that originates entirely outside conventional fashion industry pathways.

SS is a fashion and textile designer with several years of experience centered on sustainable material exploration and development. Her practice is organized around material selection as the foundational entry point into sustainability—a philosophy in which responsible design begins with rigorous engagement with the properties, origins, and environmental implications of materials themselves. What distinguished her contribution was the depth of her material-focused approach.

SM is an associate professor whose work spans accessories design and sustainability education within a large academic institution. With five to seven years of sustained engagement, her practice emphasizes pedagogical approaches that connect sustainability principles with applied design processes. What distinguished her contribution was her ability to translate sustainability into teaching in ways that influence how designers think at a foundational level—positioning education as a critical site of sustainability development.

HH is a consultant and designer with over a decade of experience spanning design practice and sustainability consulting across US and global contexts. Her work engages complex international supply chains, emphasizing ethical sourcing and systems-level approaches to sustainable production. What distinguished her contribution was her global perspective—particularly her understanding of the structural and relational dynamics embedded in international sourcing systems.

SBr is a fashion educator with over a decade of experience in curriculum development and sustainability integration within academic programs. Her work focuses on embedding sustainability concepts into design education at a structural level, fostering critical awareness among students and shaping the professional orientations of emerging designers. What distinguished her contribution was her commitment to curriculum as a mechanism of systemic change.

AK is an independent designer and founder of a micro-scale apparel enterprise with five to ten years of experience integrating sustainability into design-led practice. Her work emphasizes circular design approaches and responsible material use within the particular constraints of small-scale independent production. What distinguished her contribution was her

experimental orientation—her willingness to test and iterate circular strategies within a micro-enterprise context where resources are limited.

VO is a designer and entrepreneur with five to ten years of experience grounded in craft-based production and ethical manufacturing practices. Her work emphasizes the preservation of artisanal techniques as an expression of sustainable and values-driven design, situating handcraft within a broader commitment to ethical labor and responsible production. What distinguished her contribution was her dedication to craft as both a sustainability strategy and a cultural practice.

AR is a designer and consultant with over a decade of experience in apparel and textile design, with a sustained focus on material innovation and sustainability. Her work engages both creative and technical dimensions of sustainable practice, particularly in the identification and application of new and emerging materials as pathways to reduced environmental impact. What distinguished her contribution was her focus on material innovation as a primary driver of sustainability.

CR is the founder of a micro-scale home and textile goods enterprise with seven to ten years of experience focused on circular design and material reuse systems. Her practice is organized around extending product life cycles and rethinking waste through intentional design interventions, reflecting a systems-oriented approach within a small enterprise context. What distinguished her contribution was her commitment to reuse as a foundational design principle.

RD is a designer and educator with over a decade of experience integrating sustainability across professional design practice and higher education teaching. Her work reflects sustained engagement with the connection between design decision-making and broader sustainability outcomes, operating simultaneously within practice-based and pedagogical contexts. What

distinguished her contribution was her capacity to bridge professional practice and education in ways that advance sustainability thinking on both fronts.

This chapter has detailed the methodological architecture of the study, articulating the interpretive design, purposive sampling strategy, multi-phase data collection procedures, systematic analytic process, and layered strategies for establishing trustworthiness. By documenting the progression from initial recruitment through hierarchical coding, cross-case comparison, and thematic stabilization, the chapter has made visible the analytic pathway through which participant narratives were transformed into patterned findings.

The procedures described herein were designed to examine sustainability-oriented practice not as an abstract ideal but as a lived and evolving professional orientation embedded within material, relational, and structural conditions. Through prolonged engagement and iterative analysis, the study sought to identify recurrent processes shaping how designers initiate, sustain, and recalibrate sustainability commitments across varied entrepreneurial contexts.

Having established the methodological foundations that support interpretive authority, the dissertation now turns to the empirical findings generated through this analytic process. Chapter 4 presents the thematic domains that emerged from systematic analysis of interviews, critical incident narratives, and focus group dialogue. The emphasis shifts from procedural explanation to patterned accounts of experience, illuminating how sustainability commitments were experienced, enacted, negotiated, and stabilized within the professional lives of the designers studied.

Chapter 4: Findings

This chapter presents findings from in-depth interviews with 18 professionals engaged in sustainability-oriented fashion and textile practice, whose roles span independent founders (AI, CR, CB, RP, RD, SS, YB, AK, HH, SBr), educator-practitioners (AS, AR, SM), hybrid founder-educators (MD, SU), industry and supply-chain executives (SBa, TP), and a product development manager (VO) (see Table 4.2 for full role classifications). Participants operate across diverse segments of the fashion ecosystem, including brand ownership, education, product development, sourcing, and systems-level support for sustainable production. While all participants shared a commitment to sustainability, their pathways into sustainable practice, the challenges they encountered, and the skills they developed varied in meaningful ways. The findings that follow are organized around three major areas—learning trajectories, challenges and facilitators, and skill development—and are presented through a combination of narrative synthesis, illustrative participant quotations, and analytic tables that make patterns and variation visible across roles and experiences.

Chapter Overview and Organization

This chapter presents findings addressing the research questions guiding the study. In keeping with the qualitative design, in-depth interviews serve as the primary analytic foundation. Critical Incident Questionnaires (CIQs) were used selectively to elaborate, clarify, and reinforce patterns emerging from the interview data. Two virtual focus groups were conducted following the interview phase; their primary function was confirmatory—triangulating whether the patterns identified in individual interviews held across collective dialogue. Because the focus groups

were designed to confirm interpretations rather than generate independent findings, a fuller discussion of their contribution to synthesis and conceptual integration is presented in Chapter 5.

Following transcription and initial review, an iterative coding process was conducted beginning with open coding to identify recurrent concepts and incidents. These preliminary codes were clustered into focused categories through constant comparison across participants. Through successive refinement, categories were consolidated into higher-order themes that addressed the research questions. The themes presented in this chapter represent the outcome of that analytic progression.

The findings are organized into three major areas: learning trajectories into sustainable fashion practice, challenges and facilitators shaping the maintenance of sustainable practice, and knowledge and skill development required to enact sustainability in practice. These areas emerged through cross-case comparison of interview data, as codes were compared within and across participants and patterned clusters consolidated into broader thematic domains. Disruptions such as COVID-19-related supply-chain instability and geopolitical volatility are addressed within the challenges and facilitators section rather than treated as a separate findings area, as they surfaced primarily as contextual pressures shaping the structural conditions participants navigated. Table 4.1 provides an overview of these themes and their associated subthemes; detailed analysis and evidence are presented in the sections that follow.

Table 4.1

Findings Overview Map

Major Findings Area	Themes	Subthemes / Analytic Dimensions
Learning Trajectories into Sustainable Practice	Entry Pathways	Early value-aligned entry; later shift prompted by professional or ethical dilemma
	Catalytic Experiences	Material waste shock; ethical dissonance or burnout; exposure to social or environmental harm; professional disillusionment
	Mediating Influences	Mentorship and educational experiences; prior professional exposure
	Value Continuity	Familial values; cultural or community-based values
Challenges & Facilitators of Sustainable Practice	Structural and Market Challenges	Pricing and cost pressures; minimum order quantity (MOQ) constraints; access to sustainable materials; consumer willingness to pay
	Institutional and Policy Constraints	Lack of institutional support; regulatory and policy barriers
	Community-Supported Practice	Deliberate small scale; values-alignment screening; artisan and local networks
	Unexpected and Unanticipated Disruptions	COVID-19–related disruption; tariff-related market disruption
	Network and Community Support	Peer collaboration; mentorship access; artisan and community networks
	Cognitive, Ethical, and Adaptive Facilitators	Ethical clarity; flexibility and resourcefulness; reframing expectations (“progress over perfection”)
Knowledge and Skill Development in Practice	Technical and Material Competencies	Sustainable material literacy; ethical sourcing and vetting; circular and zero-waste techniques; repair and longevity practices
	Operational and Strategic Skills	Costing and pricing for ethical production; workflow and systems design; supply-chain risk management; scaling decisions
	Relational, Communicative, and Reflective Capacities	Collaboration and collective problem-solving; transparency and storytelling; teaching and knowledge-sharing
	Reflective and Ethical Reasoning	Ongoing reflection; ethical trade-off evaluation; values-based decision-making

Note. This table summarizes the three major findings areas, their constituent themes, and analytic subthemes as developed through cross-case analysis of interview data. The thematic structure presented here operates at the findings level and uses descriptive language aligned with Chapter 4’s narrative organization. It should be distinguished from Table 3.2 in Chapter 3, which presents the same structure using the formal subtheme numbering (ST 1.1–3.5) and theoretical mapping used in the analytic process. Readers cross-referencing these two tables should note that Table 4.1 groups some subthemes under broader headings for readability—for example, “Structural and Market Challenges” encompasses ST 2.1 and ST 2.2 from Table 3.2. This table should also be distinguished from Table 3.1, which documents participant characteristics and sampling criteria.

Participant initials are used throughout this chapter to reference interview data. For a full participant reference key, including names, professional roles, and organizational contexts, see Table 3.1 in Chapter 3. Table 4.2 provides a summary of participant initials and role classifications as referenced in the findings that follow.

The following section examines the learning trajectories through which participants entered and sustained sustainability-oriented practice, highlighting variation in entry pathways, catalytic experiences, and mediating influences across roles.

Learning Trajectories into Sustainable Practice

This section examines the learning trajectories through which participants entered sustainability-oriented fashion and textile practice. As summarized in Tables 4.2-4.4, participants described distinct pathways into sustainability shaped by early value alignment, mentorship and educational influences, or later shifts prompted by professional or ethical dilemmas. These trajectories were not uniform and varied across professional roles and contexts. Nine participants articulated a longstanding commitment to sustainability that guided their entry into the field; seven described arriving at sustainability through moments of disruption encountered during practice. Across both trajectories, participants emphasized that learning was ongoing rather than linear, shaped by continued exposure to constraints, opportunities, and reflection in practice.

Catalytic dilemmas were not uniformly reported; for many interviewees sustainability was value-driven rather than initiated by a discrete moment of disruption. Market viability pressure was the most pervasive ongoing disruption (n = 18), experienced across all participants regardless of role. CR captured the bind directly:

> If you want to be like squeaky clean and pure then you're swallowing a lot of costs ... it was such resistance to price I had to bring it down to a price that people would pay and swallow the cost myself. We work off such small profit margins now and that's been the toughest thing.

Table 4.2

Entry Pathways

Column Key: EV = Early value-aligned entry; LS = Later shift initiated by dilemma; FV = Familial value continuity; CV = Cultural/community-based value continuity; ME = Mentorship/educational catalyst.

Initials	Role	EV	LS	FV	CV	ME
AI	F		✓			✓
AS	Ed-P		✓			✓
AR	Ed-P	✓				✓
CR	F		✓	✓		
CB	F		✓			
MD	F/Ed-P	✓		✓		✓
RP	F	✓				
RD	F	✓				
SS	F		✓		✓	
SM	Ed-P	✓				✓
SU	F/Ed-P	✓				✓
SBa	F/IE		✓			✓
TP	IE	✓			✓	
VO	PD		✓			✓
YB	F		✓		✓	✓
AK	F	✓				
HH	F		✓			
SBr	F	✓				
N		**9**	**9**	**2**	**3**	**9**

Note. Role Key: F = Founder; Ed-P = Educator–Practitioner; F/Ed-P = Hybrid Founder–Educator; IE = Industry/Supply-Chain Executive; F/IE = Founder/Industry Executive; PD = Product Development Manager.

Table 4.3

Catalytic Dilemmas

Column Key: WS = Material waste shock; BU = Ethical/emotional burnout; SH = Exposure to social or environmental harm; PD = Professional disillusionment.

Initials	Role	WS	BU	SH	PD
AI	F	✓	✓		✓
AS	Ed-P				
AR	Ed-P				
CR	F	✓	✓	✓	
CB	F	✓			
MD	F/Ed-P	✓			
RP	F				
RD	F				
SS	F			✓	
SM	Ed-P		✓		
SU	F/Ed-P				
SBa	F/IE	✓			✓
TP	IE				
VO	PD	✓			✓
YB	F	✓	✓		✓
AK	F				
HH	F		✓	✓	✓
SBr	F	✓			
N		**8**	**5**	**3**	**5**

Note. WS = Material waste shock; BU = Ethical/emotional burnout; SH = Exposure to social or environmental harm; PD = Professional disillusionment. Catalytic dilemmas were not uniformly reported; for many participants sustainability was value-driven rather than initiated by a discrete moment of disruption.

Table 4.4

Ongoing Disruptions and Facilitating Conditions

Column Key: MP = Market viability pressure; SC = Supply-chain instability/material access constraints; IC = Institutional constraint; CR = Consumer resistance; CS = Community-supported practice.

Initials	Role	MP	SC	IC	CR	CS
AI	F	✓	✓		✓	
AS	Ed-P	✓		✓	✓	
AR	Ed-P	✓	✓	✓		
CR	F	✓	✓		✓	
CB	F	✓	✓			✓
MD	F/Ed-P	✓	✓			
RP	F	✓	✓		✓	
RD	F	✓				✓
SS	F	✓	✓			
SM	Ed-P	✓		✓		
SU	F/Ed-P	✓	✓		✓	✓
SBa	F/IE	✓	✓		✓	✓
TP	IE	✓			✓	
VO	PD	✓	✓			
YB	F	✓	✓		✓	
AK	F	✓			✓	✓
HH	F	✓		✓		
SBr	F	✓	✓		✓	✓
N		**18**	**12**	**4**	**10**	**6**

Note. MP = Market viability pressure; SC = Supply-chain instability/material access constraints; IC = Institutional constraint; CR = Consumer resistance; CS = Community-supported practice. MP was the most pervasive ongoing disruption (n = 18). CS functioned as a structural facilitator for 6 participants.

Supply-chain instability (n = 10) surfaced through supplier closures, material access limitations, and sourcing delays. AI described watching the company she had planned to join after maternity leave dissolve entirely: “The company no longer existed because it went under after COVID.” Consumer resistance (n = 10) manifested as reluctance to pay prices reflecting true production costs. AK described the disconnect with wholesale partners directly: “The customer will love the idea of that, but doesn’t want to pay more for it ... they don’t really want to communicate that message ... there’s a real disconnect there.” Institutional constraints (n = 5) appeared most acutely among educator-practitioners. SM explained the structural lag with precision: “if I wanted to teach something new in the fall, I couldn’t do it until fall 26”—a curriculum approval timeline stretching nearly two years that rendered responsiveness to emerging sustainability developments structurally impossible.

Early Value-Aligned Entry into Sustainable Practice

Nine of the 18 interview participants described entering sustainability-oriented practice with an existing set of values aligned with concerns about waste, labor conditions, environmental impact, or social responsibility. Rather than framing sustainability as a later professional conversion, these participants positioned it as a baseline ethical orientation that preceded formal engagement in the fashion industry. Sustainability was not adopted as a strategic differentiation or reaction to crisis; it was described as embedded in how participants already understood responsibility, material use, and creative practice.

This early value alignment appeared across founders, educator-practitioners, and industry-embedded professionals, suggesting that it was not confined to entrepreneurial independence or academic environments. Importantly, it manifested in at least three distinct

mechanisms: founding premise, career curation, and pedagogical assumption. Distinguishing these subtypes clarifies how early alignment operates differently across structural positions.

Founding Premise

For four founders (MD, RP, AK, SBr), early alignment was narrated as foundational to the business itself—sustainability was not added to an existing practice but was embedded in the founding logic from the outset. MD described her company as one that "from the beginning was a business about inclusion and sustainability ... the business wouldn't have existed without those pillars." RP articulated this sensibility in terms of material integrity, explaining that from her earliest design work she had committed to metals that were "real"—sterling and gold fill that would "wear well" across time—because she never wanted her work to be what she called "bread and butter," noting that "the lifetime of something that's made" was always her first principle. For AK, sustainable production was not a strategic pivot but a continuation of long-held habits around repair, resourcefulness, and attentiveness to material use—a commitment she had maintained across 15 years and described, with measured honesty about its difficulty, as one she had "never really questioned," even when market conditions made it costly. SBr similarly described how a childhood shaped by budget constraints had transformed thrifting from necessity into aesthetic preference and eventually into a business philosophy: "If I have an idea and if I think that Shein or Zara can achieve this idea, I'm just not even going to go down that path. I need to do things that they can't really do."

Across these accounts, sustainability was described not as aspirational but as assumed. Participants used language suggesting inevitability rather than discovery. Early alignment did not eliminate complexity, however. MD reflected that while her values predated her brand formation, she had underestimated how deeply conventional production systems would challenge

those commitments: “You think you’ll just do it the right way, and then you realize how many systems are set up to make that difficult.” Her account illustrates that early alignment functioned as orientation, not insulation.

Career Curation

Among industry-embedded professionals, early alignment was expressed through deliberate employer selection rather than founding autonomy. TP (IE) described how her career trajectory had been shaped from the outset by an ethical logic embedded in hiring choices: “I was always drawn to brands that had a level of a certain price point, because I knew the cost of low price product—it comes from somewhere.” SU (F/Ed-P) similarly described founding her brand on a strategic conviction that supply-chain traceability represented the highest-impact entry point:

> My instinct was that the most impact from a product sustainability standpoint was within the supply chain---at minimum, it was really deeply understanding supply chain, meaning how do you trace this product back to its raw material?

This career-curation mechanism is meaningfully different from the founding-premise account: it operates within institutional constraints while still reflecting early alignment expressed as strategic choice.

Pedagogical Assumption

Among educator-practitioners, early alignment intersected with pedagogical identity. AR (Ed-P) described sustainability as something she “assumed would be part of how design should be taught,” even before institutional mandates required curricular inclusion. SM (Ed-P) described how her sustainability orientation took shape through field immersion rather than formal training—a trip to Italian tanneries organized by a colleague proved formative: “It wasn’t just a sustainability reason, it’s like a whole lifestyle, you know, like quality, knowing, handmade to a point ... longevity, repair and things like that.” That experience shaped how she subsequently

framed student assignments and material choices, preceding any structural institutional endorsement. AS (Ed-P) described carrying the sensibility from her own formation as a designer, channeling it into "searching for the academics that were taking it to the people" when the field lacked adequate discourse. These participants distinguished clearly between personal alignment and institutional constraint—a tension examined in detail in the following section.

Familial Value Continuity and Intergenerational Transmission

In two cases (MD, RP), participants explicitly connected early sustainability alignment to familial and household conditions that normalized resourcefulness, repair, and material stewardship long before professional entry. RP (F) offered the richest account of this intergenerational transmission, describing a childhood shaped by scarcity that made working with found materials feel instinctive rather than ideological:

> Waste always hurt my heart—it was really painful. I did grow up really lean. When my grandma passed away, I was in fourth grade and she had all this costume jewelry, nothing fancy, small tiny house in the middle of nowhere in Iowa. I kept it for sentimental reasons and as I got older I was taking apart her jewelry to actually be able to wear it. There was this approach of almost like cost nothing and it could turn into this piece. I grew up going to thrift stores and salvation armies. My materials often fostered from found objects. My dad fished and so I used his fishing line to string things. It was just what was in my house because my parents weren't running me to the store to buy things.

This account illustrates sustainability not as a framework adopted later in life but as a household logic absorbed through practice—reuse, repair, and resourcefulness as daily conditions rather than ethical commitments.

MD (F/Ed-P) described a parallel foundation, noting that her family provided not an explicit sustainability orientation but the relational security that made principled professional risk-taking possible: "I do have a supportive family and a supportive partner who always believed in me ... having that underlying sense of support and love allows you to be able to make those choices and step out on your own and take big risks." For MD, family did not transmit

sustainability as ideology but as the emotional infrastructure that sustained it. These accounts did not present sustainability as abstract environmental concern; rather, it emerged from everyday domestic conditions that shaped foundational assumptions about waste, value, and what responsible making looks like. Familial continuity was present but not universal—most participants described sustainability developing through professional experience rather than household inheritance—suggesting that while family context can function as a formative site of sustainability consciousness, it is not the dominant pathway within this sample.

Cultural and Community-Based Value Continuity

Three participants (SS, TP, YB) referenced broader cultural or community-based contexts that shaped early material awareness. Unlike familial continuity, which centered on household practices, these accounts described collective experiences of scarcity, craft tradition, or production proximity as the formative condition.

SS (F) described a Midwest upbringing shaped by material scarcity that made the excess of mass fashion feel not merely wasteful but genuinely absurd:

> I didn't grow up with much. And I really value things. Growing up in the Midwest where there was lots of nature—I value that. I really decided that at a certain point it just was like it was just ridiculous to me. The whole thing was ridiculous.

That foundational orientation toward valuing what one has, rather than accumulating more, became the lens through which she later interpreted mass production—not as neutral industry practice but as a system visibly at odds with how she had learned to understand the worth of things.

YB (F) described her sustainability consciousness as developing gradually through educational exposure to European contexts where sustainability was simply ambient cultural norm—"The seed was planted perhaps from studying in Europe and now it's been growing, growing, and now it's kind of like everywhere through my life." Returning to Ukraine after time

in Norway made the contrast stark: habits of sorting, reducing, and reusing that had become natural in Scandinavia felt conspicuous and isolated back home, reinforcing her sense that sustainability was as much a question of collective culture as individual choice.

TP (IE) described early career awareness rooted in proximity to global production systems:

> I was always drawn to brands that had a level of a certain price point, because I knew the cost of low price product—it comes from somewhere. Fast fashion is bad not just for the planet from an environmental standpoint, but for wages and conditions—all those things factor into what I feel is sustainability, because it's the social impact, not just the planetary environmental impact.

In such cases, sustainability consciousness was not articulated as environmental activism; it was embedded in lived conditions—of scarcity, cultural habit, or production proximity—that made the costs of volume-driven fashion visible long before the industry named them as sustainability problems.

Early Alignment as Orientation Rather than Achievement

Across all nine early-aligned participants (MD, RP, AK, SBr, AR, SM, AS, TP, SU), value alignment was consistently described as orientation rather than accomplishment. None suggested that entering the field with ethical commitments resolved sustainability challenges; instead, they framed it as a starting position that shaped how they interpreted later constraints. Importantly, early alignment did not prevent exposure to catalytic experiences—rather, it altered their meaning. For participants like CR and RP, encounters with material waste or labor conditions reinforced existing concerns rather than initiating them. What differed was not exposure to tension, but whether sustainability was experienced as confirmation of prior belief or as revelation.

CR captured this distinction directly, describing years of working within conventional fashion systems while carrying an awareness she could never fully suppress:

> I honestly always knew what's right and wrong. I always knew. You'd see a polyester dress selling twenty thousand units and in your conscious you always know that it's wrong. But you get swept along with it—with the success of it. We always knew this, but I feel like a lot of the fashion industry was run by people that didn't care.

Her account illustrates that early alignment did not protect participants from institutional complicity; rather, it meant that complicity was always felt as contradiction rather than neutrality. RP described a parallel orientation grounded in her founding commitment to materials that would last:

> I didn't want it to be like bread and butter—just a really quick void to fill for somebody. The lifetime of something that's made, because it's a form of art. Before fast fashion was even a term, it was like, what's for the long haul? I've always been a staple-minded person—make something nice once, not replacing it ten times. The snowball effect of that is so much bigger.

Participants with early alignment frequently emphasized continuity in their narratives—accounts that lacked dramatic turning points and instead highlighted gradual operational refinement. Learning involved translating principle into practice: figuring out sourcing systems, pricing structures, and workflow adaptations that allowed preexisting values to persist within competitive markets. This contrasts with later-shift participants, whose narratives were structured around moments of rupture.

Variation Within Early Alignment

Although grouped analytically as early value-aligned, the nine participants in this trajectory (MD, RP, AK, SBr, AR, SM, AS, TP, SU) did not represent a homogeneous category. Variation appeared across three dimensions: source of alignment (familial, cultural, pedagogical, or experiential); structural position at entry (founder versus industry professional versus educator); and intensity of structural resistance encountered once practice began.

The first dimension—source—distinguished participants whose alignment emerged from household scarcity and material resourcefulness (RP), from collective cultural contexts (SS, TP,

YB), from pedagogical identity (AR, SM, AS), and from deliberate founding logic (MD, AK, SBr). These sources shaped not only how sustainability was understood but how it was enacted: RP's material-level orientation found expression in sourcing decisions; AR's and SM's pedagogical orientation found expression in curricular choices; MD's structural orientation found expression in a business model built entirely around inclusion and sustainability from day one.

The second dimension—structural position—produced meaningfully different experiences of early alignment. Founders with full autonomy (MD, RP, AK, SBr) could embed values into business architecture immediately. SU described her founding decision as explicitly strategic:

> My instinct was that the most impact from a product sustainability standpoint was within the supply chain—at minimum, it was really deeply understanding supply chain, meaning how do you trace this product back to its raw material?

Her account reflects early alignment expressed as calculated entry point rather than personal origin story. Industry-embedded participants (TP) and educator--practitioners (AR, SM, AS), by contrast, exercised ethical agency within systems they did not design—navigating institutional structures that both enabled and constrained how alignment could be enacted.

The third dimension—intensity of resistance—was perhaps the most consequential. Some participants described early alignment as structurally frictionless in the early stages: MD's made-to-order model, built around sustainability from inception, meant she never had to retrofit values onto an existing system. Others encountered immediate and sustained tension. AK's 15-year commitment to artisan-sourced children's apparel ran continuously against market pricing realities, producing what she described as genuine disheartening rather than confident persistence. This internal variation underscores that early alignment should not be interpreted as uniform ease or structural privilege—it indicates the temporal sequencing of sustainability consciousness relative to professional entry, not the absence of difficulty.

Learning Implications of Early Alignment

Participants with early alignment framed learning as practical and iterative rather than transformative. They did not describe themselves as "converted" to sustainability; they described learning how to operationalize commitments that were already present—figuring out sourcing systems, pricing structures, supply-chain relationships, and consumer communication strategies that allowed preexisting values to persist within competitive markets. RP (F) captured this orientation most vividly, describing a learning process built around resourcefulness rather than revelation:

> I've always had a resourceful mind. I've always trained my eye for design thinking like, what do I have at my fingertips? What's attainable? If I'm just more thin and lean, it creates a more resourceful approach—efficiency, cost, what I can claim as a designer. My brain has always been trained on price per wear, perceived value, make something nice once not replacing it ten times. The snowball effect of that is so much bigger.

Her account illustrates that early alignment structured not only what she valued but how she learned—orienting skill development toward efficiency, durability, and material integrity rather than toward an ethical awakening that required new frameworks. MD (F/Ed-P) described a parallel learning trajectory: because her business was built on made-to-order production and size inclusion from inception, her learning was never about adopting sustainability but about deepening it—"The more knowledge I can have, the better on the best choice of fabrics, the best way to recycle things, the best way to get rid of my waste." Early alignment did not eliminate the need for skill development; it determined the direction that development took. For these participants, sustainability was not a destination to arrive at but an ongoing project of refinement—translating long-held principles into increasingly sophisticated and structurally coherent practice.

Mentorship and Educational Catalysts

Across both early value-aligned and later-shift trajectories, mentorship and educational experiences functioned as significant mediating influences shaping how participants entered and operationalized sustainability-oriented practice. Eight participants (AR, AS, AI, SM, SBa, SU, TP, YB) explicitly identified mentors, educators, or formative learning environments as pivotal in translating abstract concern into actionable professional direction. Mentorship operated in multiple forms: formal academic instruction, informal peer guidance, industry-based advising, and self-directed learning communities.

For educator-practitioners and founders who emerged from design education contexts, academic mentorship functioned as epistemic validation—affirming sustainability as intellectually and professionally viable. SBa (F/IE) described the influence of the founding director of her master's program, crediting a combination of practical guidance and philosophical conviction:

> Everybody who wants to work sustainably has to find their own way. There's no single path. But having people around you who show you that it's possible—that it's intellectually serious—that changes everything. (SBa)

Among the eight participants coded for mentorship, several (including AI, SM, SBr) described peer collaboration as a primary vehicle—shared studio environments, informal industry networks, and professional collectives as sites where sustainability knowledge was negotiated collectively rather than transmitted hierarchically. AS (Ed-P) described actively searching out "the academics that were taking it to the people," while SS (F) described perpetual curiosity as a substitute for formal mentorship: "I'm always googling, I'm always like curious ... I'm a perpetual learner." SM's (Ed-P) learning was catalyzed through deliberate field immersion: a trip to Italian tanneries organized by a trusted colleague marked a shift from material-level sustainability thinking toward a fuller circular framework.

For industry-embedded participants, mentorship navigated institutional systems structured around scale, margin, and speed. SU (F/Ed-P) described learning most from her tier-one factories:

> I still feel like I learned the most from my tier one factories—having good relationships with factory owners, production managers, people who were able to show me how it really worked on the ground and the decisions that they were making.

An informal advisor running a sourcing agency provided what SU called "a real dose of reality"—not a sustainability advocate, but someone who gave an honest account of supplier economics. TP (IE) similarly described mentorship within corporate contexts as functioning as a translation mechanism—learning not just what sustainability required, but how to make that case in the language institutional decision-makers could act on:

> When you start talking to financial people about these things and how sustainability helps the bottom line, that's really when you start to move the needle. That's when you're really getting the support of brands—bringing in individuals like myself to help them drive not just messaging. You need to know this to be a more successful designer. You need to know this so that you're making better margin on your clothes, that you can continue to grow your business. These are things that save money and help the margin, and that's how you're going to sell it.

Her account captures mentorship in corporate contexts as less about values transmission and more about institutional fluency—learning whose language to speak and when. Not all participants reported equal access to mentorship. Five founders (including RD, RP, AK) described initial isolation, particularly when operating outside major fashion hubs, constructing mentorship retrospectively through trial-and-error learning or online networks. The presence or absence of mentorship shaped the pace and confidence of skill acquisition rather than determining sustainability engagement itself.

Later Shifts Prompted by Professional or Ethical Dilemmas

Seven participants of the 18 interview participants (AI, AS, CR, HH, SBa, SS, VO) described entering sustainability-oriented practice through later professional shifts prompted by

experiences of ethical discomfort, operational contradiction, or structural disillusionment encountered during their careers. Unlike those whose sustainability commitments preceded professional entry, these participants narrated identifiable moments—or accumulations of moments—in which existing practices became untenable. CB reported material waste shock as a catalytic marker but entered practice through a predominantly values-aligned orientation; the single marker did not constitute the accumulated dissonance characteristic of the later-shift trajectory. Similarly, YB's decade-long background in aquaculture science and ecological systems consulting meant that her entry into fashion practice was already sustainability-oriented at its foundation; while she experienced catalytic moments during her fashion work, her trajectory more closely resembles early alignment emerging from a prior professional identity than a later shift away from unsustainable practice. Sustainability emerged not as baseline orientation but as response to tension.

As shown in Table 4.3, catalytic dilemmas varied in form and intensity. Material waste shock and ethical or emotional burnout were among the most frequently reported triggers (n = 6 each), followed by professional disillusionment (n = 5) and exposure to social or environmental harm (n = 3). Most emphasized that shifts were cumulative rather than singular.

Material Waste Shock

Participants recounted moments of confronting excess—unsold inventory, discarded samples, overproduction cycles—that destabilized prior assumptions about efficiency and value. VO (PD) described the accumulation of discomfort that eventually ceased to feel like neutral business reality:

> By season, millions of dollars of fabric just go to waste because somebody changed their mind. Timelines, fashion schedule, calendar, and the egos that come along with the industry—it's a deep-rooted issue. At some point it stopped feeling neutral.

SBa (F/IE) described a parallel reckoning through sustained exposure to the sheer volume of production: “the mass of things that are produced” felt “frightening in a way or overwhelming,” reshaping her professional priorities around reduction rather than volume. For participants experiencing waste shock, sustainability did not emerge abstractly; it was grounded in material observation—seeing excess firsthand in warehouses, sampling rooms, and product disposal, functioning as empirical confrontation with norms that had previously passed unexamined.

Ethical and Emotional Burnout

Participants recounted moments of confronting excess—unsold inventory, discarded samples, overproduction cycles—that destabilized prior assumptions about efficiency and value. VO (PD) described growing discomfort with seasonal overproduction cycles that eventually ceased to feel like neutral business reality: “By season, millions of dollars of fabric just go to waste because somebody changed their mind,” framing this not merely as inefficiency but as a “deep-rooted issue” whose structural causes—”timelines, fashion schedule, calendar, and the egos that come along with the industry”—pointed toward a system in need of fundamental reconfiguration rather than incremental adjustment.

AI (F) offered one of the most visceral accounts of waste shock in the dataset, describing the cumulative effect of seeing the full production pipeline from inside:

> It was that issue of waste—just walking through the malls and seeing the fast fashion, so many samples, and being behind the scenes in the fashion industry, knowing how many samples go into a production throughout the process. One garment in the store represents up to 100 samples in development that just get wasted and burnt, and then you’ve got so much that’s in the store that gets wasted and not used and then tossed. It kind of made me sick to my stomach looking at it—knowing the full picture and not just being like, oh, eye candy, oh, that’s cute. That was definitely something for me that was just like, I gotta get out or I gotta do something different. (Focus Group 2)

MD (F/Ed-P) added a dimension that AI’s account implied but made structurally explicit—that waste was embedded in the production process before a single garment reached

the consumer. She described a design director returning from overseas with duffel bags of samples cut with holes to avoid import taxes:

> Right from the jump, they're all trash. We would just cut back by at least 50% right off the bat. Those 50 that we're not even going to look at, not going to talk about, not going to use for any reason—immediately garbage. And it's all just waste before you even get to the sampling.

Her account named overproduction not as a downstream consumer problem but as a systemic norm embedded in how the industry sourced, sampled, and discarded before any product reached a store floor. SBa (F/IE) similarly described observing what she called "the mass of things that are produced" as "frightening in a way or overwhelming," and how that sustained exposure had reshaped her professional priorities around reduction rather than volume. For participants experiencing waste shock, sustainability did not emerge abstractly; it was grounded in material observation—seeing excess firsthand in warehouses, sampling rooms, and product disposal, functioning as empirical confrontation with norms that had previously passed unexamined.

Exposure to Social or Environmental Harm

Three participants (HH, SS, CR) described more direct exposure to labor or environmental harm as catalytic. HH (F) recounted a defining moment at a trade show in which a vendor casually attributed low pricing to Syrian refugee labor: "She goes, well, it's fine because we have a bunch of Syrian refugees in Lebanon, and they work for cheap. And then she walked off to go get cash. And I panicked." The incident crystallized an abstract discomfort into concrete moral urgency—information that had previously existed at a distance became immediate and embodied, making prior acceptance of similar conditions no longer tenable. SS (F) described a parallel experience at a Swiss textile firm where observing production waste firsthand reinforced a conviction she articulated as: "If something is inexpensive, someone and or something is being exploited."

CR (F) approached the harm dimension differently—not through a single catalytic incident but through a slow accumulation of recognition about what industry practices actually required of people she never saw. She described the logic of factory sourcing trips with unusual candor:

> We would go for a factory because the labor was cheap and fabrics were cheap. For the selfishness of a couple of designers, a couple of buyers, middle and upper management getting to go to faraway places, you're just sacrificing a lot of other people. It's really selfish when you think about it. But when you're right in the minute, you don't really look at it. We always knew this—but I feel like a lot of the fashion industry was run by people that didn't care. All they were interested in was making as much money as possible. The only reason they would care is if they had to do something by law.

Her account adds a structural and moral dimension that HH's trade show encounter and SS's factory visit do not fully capture: the way institutional incentives—cheap travel, cheap labor, cheap material—created conditions in which harm was rationalized rather than confronted. Exposure narratives were less common than waste shock or burnout in this sample, but when present they carried distinctive emotional weight—durable in memory and structurally formative in subsequent decision-making.

Professional Disillusionment

Five participants (SBa, VO, CR, AI, HH) described professional disillusionment as a catalyst that differed subtly from burnout. Whereas burnout emphasized exhaustion, disillusionment centered on erosion of belief in prevailing industry narratives. SBa (F/IE) reflected that conventional volume and efficiency metrics had initially appeared as neutral indicators of success; over time, she began to question whether those metrics adequately captured the costs she had come to view as essential. VO (PD) similarly described a collapse of belief in the runway sector's operating logic:

> Once I became a mom, that obviously shifted everything—oh, actually, that's not that important. The conventional markers of career success—volume, speed, collection

> throughput—had begun to feel fundamentally misaligned with the values I had developed.

The realization that widely accepted performance measures excluded ethical dimensions prompted reassessment not merely of daily practice but of what constituted meaningful work.

Cumulative Rather than Singular Shifts

Although categorized analytically as later shifts, participants rarely framed their trajectories as single turning points. YB's (F) trajectory illustrated a slow-accumulation subtype: her shift emerged gradually through European study exposure, a catalytic lecture on microplastics—"I realized it just because of the washing machine ... washing cycles, tiny particles from clothing ... oh my God, this is such a huge issue"—and subsequent research immersion, rather than through any discrete crisis moment. Waste visibility, emotional fatigue, exposure to harm, and cognitive disillusionment frequently intersected: CR (F) referenced both waste shock and labor conditions as contributing factors; AI (F) described burnout and disillusionment operating simultaneously; the accumulation crystallized during factory trips to China, where the environmental cost of production became viscerally concrete:

> I told the factory owner, wow, the sky is so foggy. And he was like, foggy? It was normal. He didn't know that the sky was blue---that conversation never came up ever in his life that the sky would be any other color than that ugly gray. I came home and told everybody about that. Imagine. No blue skies.

Her account captures the moment when industry exhaustion and environmental reckoning converged—not as separate experiences but as a single, accumulated confrontation with what conventional production actually required.

Contrast with Early Value Alignment

The distinction between early alignment and later shifts lies primarily in narrative structure rather than eventual practice. Early-aligned participants described continuity and gradual operational refinement; later-shift participants described rupture followed by

recalibration. By the time of interview, both groups had developed sustained sustainability-oriented practices. The divergence therefore concerns entry pathway, not endpoint. Later-shift narratives often carried stronger language of reorientation—participants described needing to "redefine success," "step back," or "change direction"—indicating reconfiguration of professional identity in response to perceived misalignment.

For some, prior conventional industry experience proved strategically valuable after reorientation rather than despite it. VO (PD) described how the COVID-forced constraint of working only with available materials permanently reframed how she approached product development:

> We were kind of backed into a corner, not really having a lot of options, but at the same time, that allowed us to use existing stock of things that may otherwise go to waste. It kind of opened my eyes to thinking of things in that way—like first, let's see what we have before we go and develop new. During COVID, you didn't have a choice. So you use what you have or you don't make your product.

Her account illustrates that years of conventional industry experience did not need to be discarded following reorientation—it provided the operational fluency through which a new set of priorities could be enacted. The constraint became the lesson, and the lesson became a permanent change in practice.

Learning Trajectories as Ongoing and Nonlinear

Across all entry pathways, participants emphasized that sustainability-oriented learning unfolded over time rather than through a singular completed transition. Fifteen of 18 participants (all except AR, TP, and RD, whose accounts emphasized consistent directional progression rather than cycles of doubt and recommitment) explicitly resisted framing their professional development as linear progression. Instead, they described cycles of refinement, doubt, adjustment, and recommitment—a pattern that held regardless of whether their entry had been through early alignment or later rupture. AI summarized this orientation directly: "You don't

arrive at sustainability and stop learning. You keep learning because the conditions keep changing." Her statement reflects a recurring theme across interviews—that sustainability competence is provisional and context-dependent.

For early-aligned participants, learning involved translating existing values into progressively more sophisticated operational practices. RP (F) described this as a continuous discipline of efficiency and refinement rather than a settled competence:

> I've always had a resourceful mind ... if I'm just more thin and lean, it creates a more resourceful approach of efficiency cost, what I can claim as a designer. My brain has always been trained on price per wear, perceived value, make something nice once not replacing it ten times. The snowball effect of that is so much bigger.

SS (F) described a parallel orientation of perpetual learning as the engine of operational deepening: "I'm always googling, I'm always like curious. I am like a perpetual learner"—a disposition that substituted ongoing self-directed inquiry for any fixed endpoint of mastery.

For later-shift participants, nonlinearity appeared differently. Following catalytic recognition, participants described periods of uncertainty in which sustainability goals coexisted with structural and financial pressure. HH (F) described the ongoing cost of maintaining her commitments with characteristic clarity: "I have the privilege of saying, no, I'm not going to do that. Or I'm going to do it this way, even though it's more expensive and I make less money." Her account frames sustainability not as a resolved position but as a recurring choice made against economic friction. MD (F/Ed-P) described a scaling reassessment that required restructuring the entire direction of her practice: "There's only so much you can do as one person ... the main reason I've really tried to focus on adding education into my fashion design practice is because I am so aware that I cannot fix it by myself." Rather than abandoning her sustainability commitments as her brand grew more complex, she modified the form of her

contribution—redirecting toward education as the more scalable vehicle for the values her business had always been built around.

YB (F) described identity consolidation emerging from practice rather than preceding it: "At some point, I realized this wasn't just something I cared about—it was how I worked." Fourteen participants used language of "still learning," "figuring out," and "adjusting," even when describing decades-long careers—a vocabulary that appeared among both early-aligned participants like AK (15 years in practice) and later-shift participants like SBa—underscoring that sustainability competence is dynamic rather than static. That the work of learning sustainability is never complete becomes clearer when examined alongside the structural conditions within which it unfolds—the subject of the following section.

Recalibration Under Constraint

Structural pressures were frequently referenced retrospectively within trajectory narratives. MD (F/Ed-P) described the scaling limit she encountered as her brand grew—rather than abandoning commitments, she restructured her entire practice around it: "There's only so much you can do as one person ... the main reason I've really tried to focus on adding education into my fashion design practice is because I am so aware that I cannot fix it by myself." The reorientation was not a retreat from sustainability but a recognition that the most durable contribution available to her was no longer brand production but the formation of future practitioners. TP (IE) described a parallel process of institutional recalibration: embedding sustainability within corporate sourcing required not just persistence but learning to adjust the frame through which proposals were made. Her account of the hanger supplier negotiation captures the incremental logic: "It takes tenacity. It takes pushing. It takes partners ... these are things that save money and help the margin, and that's how you're going to sell it." Early proposals were not always adopted; over time she refined both

the substance and the framing of sustainability initiatives in response to institutional feedback. These narratives reinforce that sustainability entry cannot be understood apart from ongoing negotiation with economic and organizational realities.

Nonlinearity and Identity Development

Participants also described sustainability learning as intertwined with evolving professional identity. YB (F) described gradual recognition: "At some point, I realized this wasn't just something I cared about—it was how I worked." Her comment reflects identity consolidation emerging from practice rather than preceding it. Later-shift participants described identity disruption before consolidation: SBa (F/IE) reflected that reorienting her career toward sustainability required reevaluating long-held assumptions about what constituted success. In both trajectories, professional identity was not static; participants described moments of questioning and reaffirmation. AI (F) articulated the underlying disposition that sustained continued development: "If I do something bad, I never want to do the same mistake twice. How can this be a little bit better? It's sort of a sponge-long way—just gathering and learning and adapting." Her framing suggests that sustainability orientation is continually reinforced through practice rather than permanently secured.

Alignment with CIQ Findings

Patterns described in interviews align with broader CIQ data summarized in Appendices D2--D4. Although 30 of 32 CIQ respondents referenced catalytic professional events, these incidents were not uniformly transformative ruptures. Many described heightened awareness that intensified over time rather than discrete conversion. CIQ responses further indicate that reflective practice and value reframing were universal learning responses (n = 32), reinforcing the interpretation that sustainability trajectories are developmental and layered rather

than episodic. Among the 17 participants who completed both interviews and CIQs, event-based reflections in questionnaires were elaborated in interviews as part of longer structural narratives, confirming that catalytic experiences function as initiations into extended developmental arcs rather than isolated turning points.

Absence of an End State

A recurring theme across interviews was the rejection of any fixed end state. Participants did not describe reaching a stage at which sustainability practice was complete. Instead, they emphasized responsiveness to evolving standards, emerging materials, regulatory shifts, and market conditions. SU (F/Ed-P) observed that student expectations and industry discourse evolve rapidly, requiring ongoing curricular adaptation:

> I think as I've gotten deeper into it, I started with saying, okay, I can understand the overproduction problem from just the pure production numbers and what we sell, but it was very intimidating to then get back into the material supply chain and to go further upstream.

Her account illustrates that the horizon of sustainability knowledge keeps receding—each level of understanding reveals further complexity rather than arriving at mastery. Fourteen participants used language of "still learning," "figuring out," and "adjusting," even when describing decades-long careers—a vocabulary that appeared among both early-aligned participants like AK (15 years in practice) and later-shift participants like SBa—underscoring that sustainability competence is dynamic rather than static. That the work of learning sustainability is never complete becomes clearer when examined alongside the structural conditions within which it unfolds—the subject of the following section.

Challenges and Facilitators Shaping Sustainable Practice

While the previous section examined how participants entered sustainability-oriented practice, the findings also reveal that sustaining such commitments requires ongoing negotiation

with structural, institutional, and relational conditions. Participants consistently described sustainability not as a stable achievement but as a practice enacted under constraint. As detailed in Tables 4.5-4.7, these constraints included market viability pressures, supply-chain instability, institutional limitations, and consumer resistance, as well as broader exogenous disruptions, such as pandemic conditions and geopolitical uncertainty—each addressed as contextual pressures within this section rather than as a separate findings area. At the same time, participants identified relational, cognitive, and strategic resources that enabled them to persist, including peer collaboration, ethical clarity, adaptive reframing, and community-supported structures. This section examines both the structural challenges and the facilitating conditions shaping sustainable practice, treating them as interrelated and cumulative rather than discrete or episodic.

Structural and Market-Based Challenges

Participants consistently described sustainability-oriented practice as structurally constrained within a broader fashion system organized around speed, scale, cost minimization, and rapid product turnover. As shown in Table 4.5, structural and market-based pressures were pervasive across roles. Cost and pricing viability emerged as a universal constraint (n = 18), followed by limited access to sustainable materials (n = 13), minimum order quantity and scale misalignment (n = 11), consumer willingness to pay (n = 10), and limited institutional or policy support (n = 6). These pressures were rarely described as isolated obstacles; participants emphasized that constraints accumulated and interacted.

Table 4.5

Structural and Market-Based Conditions

Participant	Cost/Pricing Viability	MOQ/Scale Alignment	Access to Sustainable Materials	Consumer Willingness to Pay	Institutional/ Policy Support
AI	–	–	+	–	
AS	–	+	–	–	
AR	–		+		–
CR	–	–	–	–	
CB	–	–	–		
MD	–	–	+		
RP	–	–	–	–	
RD	–		–		–
SS	–	–	–		
SM	–		+		–
SU	–	–	–	–	
SBa	–	–	–	–	
TP	–		–	–	
VO	–	–	–		
YB	–	–	–	–	
AK	–		–	–	
HH	–		+		–
SBr	–	–	–	–	
n+	**0**	**1**	**5**	**0**	**0**
n−	**18**	**11**	**13**	**10**	**4**

Note. (+) indicates a facilitating condition; (−) indicates a constraint or barrier to sustainable practice. n+ = number of participants reporting as facilitator; n− = number reporting as constraint.

Cost and Pricing Viability as Persistent Structural Tension

All 18 participants described cost or pricing viability as a central structural challenge. Across founders, educator-practitioners, industry executives, and product development managers, the tension between maintaining ethical sourcing standards and remaining economically viable was described as persistent rather than episodic—not a problem to be solved but a condition to be navigated. CR (F) described the bind with characteristic directness:

> If you want to be like squeaky clean and pure then you're swallowing a lot of costs. It was such resistance to price I had to bring it down to a price that people would pay and swallow the cost myself. We work off such small profit margins now and that's been the toughest thing.

This passage captures a dynamic widely reported among founders: ethical commitment did not reduce financial pressure but redistributed it, requiring the designer to absorb costs the market refused to validate. This pattern was confirmed in the focus group, where CR described it in almost identical terms, and SBa (F/IE) noted that "being genuinely sustainable at every stage it costs so much and your profit margins are so so narrow you're so squeezed unless you're like a very luxe brand." AK (F), reflecting on 15 years of artisan-sourced children's apparel, arrived at the structural limit of this logic with unusual candor:

> It really feels like unless you have a very high end customer ... I really felt like if it's only for the top percent, then how is that even helpful? I believed there was a way to do it and make the price work. It is disheartening. I can't lie.

The most analytically significant account of cost pressure came from TP (IE), who described a packaging redesign project with a senior industry advisor at a major accessories firm that demonstrated sustainability improving profit margins rather than compressing them:

> $2.50 of packaging material was redesigned to eliminate waste, bringing unit cost down in a way that, multiplied across a ten-million-unit business, represented substantial savings. Nobody questioned it until I positioned the change through financial rather than ethical language.

Her account stands as the most concrete illustration in the dataset of sustainability functioning as economic opportunity when framed within the logic institutions already use. SS (F) identified the structural layer beneath individual pricing decisions: “The problem really is when you dig into it is a price and pushback from your boss, your CEO—the bottom line is the bottom line to sell more is almost always the focus.” SU (F/Ed-P) described the existential dimension of cost pressure for subscale founders:

> The number of conversations I’m having with brand founders right now, who are subscale—we’re just like, I’m ready to give up, I’m ready to close this. You’re in this no-man’s-land between $500K and $5M where you’re too large to operate as a craft practice and too small to access the supplier relationships available at scale.

Ethical sourcing commitments compounded this trap because the additional costs of transparent supply chains further narrowed already-compressed margins.

Minimum Order Quantities and Scale Misalignment

Nine participants (SS, RP, HH, CR, SBa, AK, CB, SU, MD) reported difficulty securing sustainable materials without committing to production volumes that exceeded their capacity or contradicted their reduced-scale ethos. SS (F) described the paradox directly: ethical suppliers imposed volume minimums that made small-batch work structurally difficult, leaving her caught between over-ordering to access sustainable materials and compromising on material integrity to maintain batch size. “You want to buy less but better,” she explained, “and the whole system is designed for the opposite.” HH (F) described the same structural wall from a different angle, recounting conversations with spinners who demanded fifty-kilo minimums per colorway: “That’s a huge amount of stuff to make and to store ... it forces people out of the arena.” CR (F) named the problem across every input category in the focus group:

> Minimum order, whatever—if it was just lowered to help small, tiny, grassroot designers. Packaging, material, thread, everything. It snookers you all the time, and you end up with waste as well. If everyone just did their bit and just lowered and weren’t so greedy, that would go a massive way in helping small brands. (Focus Group 1)

RP (F) described navigating scale constraints through sustained supplier negotiation: her commitment to sterling silver and 14-carat gold fill as non-negotiable anchors of her practice required her to open sourcing conversations not with price but with premise—"There's minimums and stuff, but negotiation is key ... I can't do 50 feet right now, but I would love to try and sample this out." Positioning ethical commitment as a design constraint rather than a financial limitation shifted the terms of negotiation.

Access to Sustainable Materials and Supply-Chain Instability

Ten participants (AI, RP, AR, CB, SU, VO, YB, SS, AK, SBa) identified limited or unstable access to sustainable materials as an ongoing challenge. AR (Ed-P) described a defining moment when her Italian fabric supplier contacted her without warning: "I'm sorry, we can't supply your fabric anymore because it's unavailable"—a disruption that forced her to locate alternatives and ultimately led to a more sustainable fabrication. AI (F) described developing an increasingly investigative sourcing posture over time, learning that trust with suppliers was built through longitudinal engagement rather than one-time vetting.

Pandemic-related disruptions further intensified supply-chain fragility. CB (F) described watching her sewing team's shop shut down entirely during COVID, with product stopped on the production lines and nothing she could do. AI (F) described watching the company she had planned to join after maternity leave dissolve entirely: "The company no longer existed because it went under after COVID"—a loss that catalyzed a major career reorientation. SU (F/Ed-P), whose on-demand production model carried no standing inventory, described COVID as paradoxically affirming: "We were a totally nimble on-demand model ... our factory only went out for two weeks—from a supply chain stability standpoint, we didn't deal with any of those

rocky patches." VO (PD) described COVID as a forcing function that exposed which production assumptions had been arbitrary:

> During COVID, you didn't have a choice. So you use what you have or you don't make your product. It permanently reframed how I approach pre-production planning---start with what exists before you source anything new. (VO)

YB (F) added a dimension absent from every other account in the dataset: "War actually impacted more sustainable fashion than COVID in Ukraine." Her account—of production workforces reconfigured around women, international funding mechanisms unlocked specifically for Ukrainian sustainable producers, and community-based sourcing networks becoming urgent infrastructure—insists that supply-chain instability must be understood as geopolitically situated, not merely as a function of global market dynamics. AK (F), sourcing artisan-produced goods from Mexican communities, described losing a major retail account not to tariffs but to sentiment: "I had a program with a major home lifestyle network that I lost solely based on that, because they only want to focus on Made in the USA products"—noting the troubling irony that the period most demanding of supply-chain rethinking had produced retailers least motivated to support it.

Consumer Willingness to Pay and Market Education

Eight participants (HH, CR, SS, SBr, AK, RP, SU, SBa) identified consumer willingness to pay as a significant structural constraint. Sustainability-oriented pricing models frequently conflicted with consumer expectations shaped by fast-fashion economies. HH (F) offered the most analytically distinctive account by reframing the problem entirely: "I don't actually think people, the average consumer, care. So it's on me to care. And then it's also on me to make it good enough that it doesn't matter that they don't care." Her formulation decoupled ethical practice from consumer validation, locating the burden of sustainability not in consumer education but in design quality—positioning indifference as design constraint rather than market

failure. CR (F) described the market reality more bluntly: “It was such resistance to price I had to bring it down to a price that people would pay and swallow the cost myself.” RP (F) identified a generational shift in consumer culture: “Before fast fashion was even a term, it was like, what’s for the long haul? I’ve always been a staple-minded person—make something nice once, not replacing it ten times.” SBr (F) pointed to infrastructural conditioning: “We’re all just buying stuff with the intent to wear once and throw away.”

AK (F) described a business-to-business (B2B) layer of consumer resistance distinct from direct retail pressure—retail brand partners requesting artisan photography for their marketing materials, then declining to use it in practice: “The customer will love the idea of that, but doesn’t want to pay more for it ... they don’t really want to communicate that message ... there’s a real disconnect there.” SS (F) identified a class dimension that other participants circled without naming directly: “Not everyone can afford 20% more ... sustainability is a luxury for many people,” pointing to the structural limit of consumer-education models that treat willingness to pay as primarily a matter of awareness rather than access. Her observation raises a question the study cannot avoid: if the designers profiled here serve markets that already have disposable income, and if sustainable goods remain priced beyond most consumers’ reach, what does this study’s contribution actually change at scale? This is not a reason to dismiss the work — it is a reason to be precise about its scope and honest about its limits. These findings should not be read to suggest that sustainability is inherently exclusive or properly reserved for affluent consumers. Rather, they indicate that under current market arrangements—pricing systems, supply-chain structures, weak policy supports, and uneven consumer education—sustainability is too often made more accessible to affluent buyers than it should be.

Institutional and Policy Constraints

Five participants (SM, MD, AR, CB, SU) identified limited institutional or policy support as a persistent constraint, with the nature of that constraint varying by role. Among educator-practitioners, SM (Ed-P) explained the temporal dimension with precision: “If I wanted to teach something new in the fall, I couldn’t do it until fall 26”—a curriculum approval timeline stretching nearly two years that rendered responsiveness to emerging sustainability developments structurally impossible. MD (F/Ed-P) described the same institutional logic from a faculty governance perspective: “All our curriculum for undergrad has to be obviously approved all the way up the ladder. So changes are slow.” Together, these accounts identified educational institutions as simultaneously the most rhetorically committed to sustainability discourse and the most structurally resistant to integrating it at pace.

For founders and industry participants, institutional constraints appeared differently—in the absence of policy scaffolding rather than bureaucratic friction. SU (F/Ed-P) argued that legislation was the missing structural lever: “I think it’s got to be legislation right now”—describing the regulatory environment as actively being “diluted and seen as too burdensome for the industry to take on” at precisely the moment its impact would be most significant. CB (F) identified the implementation gap in California’s textile legislation: “That’s great in theory, but how are we actually” enforcing and tracking it—naming the distance between legislative intent and operational reality as its own form of institutional failure. AR (Ed-P) noted that without shared institutional criteria, designers committed to deep structural change competed within a discourse in which minimal compliance and substantive transformation were indistinguishable from outside.

Greenwashing and the Dilution of Sustainability Language

Beyond pricing and material access, participants identified a more diffuse structural challenge: the dilution and misuse of sustainability language across the broader marketplace. AK (F) described how the term sustainability had been "used in so many different ways in which it's been honored and dishonored," noting that greenwashing "feels as unregulated as ever"—a condition that made genuine commitment and surface-level performance indistinguishable to consumers. This pattern was explicitly confirmed in focus group dialogue, where CR (F) described how starting a market pitch with "the sustainable angle" caused people to "just glaze over," whereas "Made in Scotland" generated genuine interest:

> I feel like there's been so much exposure to sustainability, people are really aware of it and almost sick, fed up—because you can go into your local supermarket and pick up a t-shirt that says, oh, I'm made of recycled bottles. And you think, oh, that's sustainable. So people are just sick to the back teeth. Some sort of gold standard of genuine sustainable product would be really, really good. (Focus Group 1)

Her account illustrates how greenwashing saturation had eroded the communicative value of the very language participants needed to differentiate their work—forcing them to route around sustainability terminology rather than rely on it.

Greenwashing operated across multiple registers of the fashion system—not only in consumer-facing marketing, but in supply-chain claims, material sourcing, and production processes. Participants described encountering greenwashing from multiple directions simultaneously: from competitors whose sustainability positioning was performative rather than structural, from suppliers whose certifications masked practices inconsistent with their claims, and from the broader retail and consumer landscape where sustainability terminology had become so overused as to lose its signifying power. HH (F) described the particular deceptiveness of materials-level greenwashing with precision: brands marketing products as "made from recycled bottles" without disclosing that those bottles were manufactured new

specifically to be shredded into fiber—a practice that, she noted, required consumers to seek out the specific designation "post-consumer recycled" to distinguish genuine circularity from circular-sounding fabrication. "You have to be so diligent as a consumer," she observed, "otherwise they're just making it up." CR (F) encountered a structurally equivalent form of greenwashing earlier in her career: discovering that a factory she had been told operated a bottle-to-fiber recycling process was in fact producing new plastic bottles and shredding them—a revelation that sharpened her commitment to supply-chain verification as a non-negotiable operational practice. These were not isolated anecdotes. They described a systemic condition in which sustainability claims were routinely decoupled from sustainability substance.

The consequences for designers with genuine structural commitments were particularly corrosive. Because greenwashing had saturated consumer perception, designers whose sourcing practices, production methods, and material choices reflected deep structural integration of sustainability found themselves competing communicatively against actors for whom sustainability was a positioning strategy rather than an operational reality. This created what several participants described as a credibility trap: substantive commitment was no longer legible as such to consumers who had been conditioned to treat sustainability language skeptically. Leading with sustainability as a market differentiator had, paradoxically, become a liability for those whose commitments were most substantive. CR (F) articulated the practical consequence in focus group dialogue: her shift from leading with "the sustainable angle" to leading with "Made in Scotland" was not an abandonment of her values but an adaptation to a communicative environment in which those values could no longer be reliably conveyed through the available terminology. The strategic irony—that the most genuinely sustainable designers were often the

least able to leverage sustainability as a market asset—remained largely invisible in industry discourse.

The greenwashing problem is not merely a communicative nuisance. It is a structural barrier that shapes sourcing decisions, pricing strategies, market positioning, and ultimately the viability of sustainability-oriented enterprises. When sustainability language loses its credibility, the price premium that genuine sustainable practice requires becomes harder to justify to consumers—compressing the margins that already make ethical production financially precarious. When certifications become associated with performative compliance rather than structural commitment, the credibility of the designers who have built their entire business model around meeting those standards is undermined. And when the marketplace normalizes sustainability claims without accountability, the designers in this study—those who have spent years navigating real supply-chain constraints, absorbing real costs, and making real trade-offs—are structurally disadvantaged relative to those who perform sustainability at a fraction of the cost. Addressing greenwashing therefore requires more than consumer education or individual brand transparency. It requires regulatory frameworks, standardized terminology, and certification pathways that can distinguish structural commitment from surface-level positioning—a condition that several participants identified as among the most consequential missing pieces of the sustainability infrastructure in which they were trying to operate.

Community-Supported Practice

Not all structural responses to market constraint took the form of resistance or adaptation. Four participants (RD, CB, SBr, AK) described a qualitatively different approach: the deliberate construction of community-supported structures as foundational to sustainable practice. Rather than treating community as a supplementary support layer, these participants embedded

community relationships, deliberate scale decisions, and values-alignment practices into their business architecture from the outset.

RD (F) described her practice as sustained not by market scale but by community infrastructure. She had made a deliberate choice to "give up becoming like a huge corporation," recognizing that conventional growth metrics were structurally incompatible with her sourcing ethics. In their place, she described what sustainable practice actually required:

> That's what I think is to make it sustainable—to have like an artist community, and everybody's helping each other, looking out for each other. The community was very tight then. Everybody looked out for everybody. (RD)

Her pandemic pivot to custom and bespoke work was not experienced as a crisis response but as a clarification of the model she had always intended: intimate, relationship-based, and sustainable precisely because it was small. CB (F) operated through a related logic of values-alignment screening, describing how she had moved from mission-based positioning toward something more direct: "trying to work with brands and designers that share these values of conscious, thoughtful" practice and a commitment to slower, local manufacturing. By limiting her client base to those whose sustainability priorities aligned with her production commitments, she reduced the friction generated when clients demanded compromises she was unwilling to make.

SBr (F) described differentiation through craft as the structural logic underlying her community relationships: building work around things that mass-volume competitors "couldn't copy if they tried" created the conditions in which loyal, aligned partners—makers, retailers, customers—naturally self-selected. AK (F) brought the sharpest warning about what happens when community infrastructure erodes:

> We're losing that connect—the artisans are becoming less and less trustworthy of what we're doing. The small businesses just keep rotating in and out. If there isn't some volume and some continuity, the craft dies too.

Her account reframes community-supported practice not merely as a strategic choice but as a relational responsibility—one that requires sustained commitment to be meaningful to the makers on whom it depends. Taken together, these four accounts describe community-supported practice as a distinct structural strategy: one that trades market scale for relational stability, and that locates the conditions of sustainable practice in networks of mutual commitment rather than in individual resilience alone.

Interaction and Accumulation of Constraints

Participants consistently emphasized that structural pressures did not operate independently. Constraints compounded: scale misalignment increased material cost, which intensified pricing tension, which required additional consumer education. Supply-chain instability disrupted production timelines, which amplified financial risk, which constrained material experimentation. MD (F/Ed-P) described encountering dead ends and roadblocks when pursuing financing for a sustainability-oriented brand—"A lot of those financial institutions don't really see consumer goods and specifically clothes as a viable option"—illustrating how structural barriers in one domain (capital access) directly constrained capacity in others (sourcing, scaling, material experimentation). AS (Ed-P) captured the compounding logic in focus group dialogue with unusual precision:

> Being genuinely sustainable at every stage it costs so much and your profit margins are so so narrow you're so squeezed—unless you're like a very luxe brand, there's not that much market space for you. And to compromise, you end up taking on freelance work, which then cuts into time that you could be spending on your product, promoting your product. So then that's not as strong, so then you don't get as far. It's just this vicious cycle. (Focus Group 1)

Her account names the accumulation mechanism directly: each structural compromise generates a downstream constraint, producing a self-reinforcing cycle that is difficult to exit without either scaling up or scaling back. Sustainability-oriented practice is structurally situated within complex

market systems; participants across all 18 accounts described not simple obstacles but multidimensional constraint environments requiring continual negotiation. The language used across accounts—"working within," "navigating," "balancing," "adjusting"—was consistent regardless of role, suggesting adaptation rather than withdrawal as the dominant response.

Facilitators and Conditions for Persistence

Sustainability commitments were sustained not through absence of friction but through layered relational, cognitive, and adaptive supports. As summarized in Tables 4.6 and 4.7, facilitators clustered across two interrelated domains: relational and network-based supports, and internal cognitive and ethical orientations.

Relational and Network-Based Supports

As shown in Table 4.6, peer collaboration and mentorship were present for all 18 participants (n = 18), underscoring the collective dimension of sustainability-oriented work.

Table 4.6

Relational and Network-Based Conditions

Participant	Peer Collaboration	Academic / Professional Mentorship	Industry Mentor / Advisor	Artisan / Community Network	Aligned Market Access
AI	+	+	+	+	+
AS	+	+			
AR	+	+	+		
CR	+	+			+
CB	+	+		+	
MD	+	+		+	
RP	+	+	+		
RD	+	+			

Table 4.6 (continued)

Participant	Peer Collaboration	Academic / Professional Mentorship	Industry Mentor / Advisor	Artisan / Community Network	Aligned Market Access
SS	+	+	+		+
SM	+	+		+	
SU	+	+	+		+
SBa	+	+	+	+	+
TP	+	+			
VO	+	+	+	+	
YB	+	+	+		+
AK	+	+			
HH	+	+		+	
SBr	+	+	+	+	+
n+	**18**	**18**	**9**	**8**	**7**

Note. (+) indicates the condition was reported as a facilitator of sustainable practice. Peer collaboration and academic/professional mentorship were universally present (n = 18).

Peer collaboration functioned as stabilizing infrastructure across multiple contexts. MD (F/Ed-P) described the relational architecture of her support system as having two distinct dimensions: an organic online community that formed around her brand's messaging and an in-person community of models who became a self-sustaining network of mutual support. The online dimension emerged before social media was monetized:

> Because of all of that, it was very easy to grow in an organic community online ... people wanted to share it, they wanted to talk about it, they wanted to recommend to other people.

Both forms of community, she emphasized, had been essential not simply for business development but for the psychological sustainability of operating as an ethical entrepreneur in an

industry that rarely validated that orientation. YB (F) described a designer network in Ukraine through which practitioners exchanged information, connected with international counterparts, and accessed funding: “This is a designer network ... those people who network internationally, like those international brands, they offer sustainability.” That network became more active following the war, with Fashion Week relocating to Copenhagen and practitioners finding new pathways for community and visibility outside Ukraine’s borders.

CR (F) described supplier relationships built through years of sustained engagement as a form of practical guidance: “You just have to trust ... they guided me and then everything else is sort of intuition.” The trust built through long-term supplier partnerships provided not just sourcing reliability but the accumulated knowledge of navigating ethical production within market constraints. TP (IE) described learning most from production experience and supplier relationships rather than from formal mentors: “I feel like it’s so important because I had sort of that production background ... that’s where some of our design schools need to catch up.” Participants without peer networks or mentorship reported greater precarity and longer periods of uncertainty, highlighting the uneven distribution of enabling infrastructure across the fashion ecosystem.

Academic and Professional Mentorship

Academic and professional mentorship appeared universally. For educator-practitioners, mentorship often functioned as legitimizing presence within institutions where sustainability integration was still evolving. SM (Ed-P) described building support through peer engagement rather than formal endorsement: “really like engaging in conversations with colleagues ... we have a sustainable awareness week in the fall and then we have a sustainable conference in the spring ... engaging with different faculty.” That lateral network of like-minded colleagues

provided the intellectual grounding and collaborative reinforcement that institutional structures did not always supply. Among founders, mentorship often centered on navigating the tension between ethics and commercial viability. CR (F) described her Scottish suppliers as a source of practical guidance that went beyond transactional exchange:

> They introduced me to the certification board and they pushed me, which I really liked. I feel like they were great ... they guided me and then everything else is sort of intuition. You can take a shortcut or you can do it the long way and just try and stick to it.

TP (IE) described the translation function that made sustainability initiatives viable within corporate environments: “When you start talking to financial people about these things and how sustainability helps the bottom line, that’s really when you start to move the needle.” Learning to frame sustainability in the language of margin and risk rather than ethics alone was itself a form of mentorship—knowledge she had developed through supplier relationships and production experience rather than from formal advisors. Across contexts, mentorship operated as interpretive support under constraint: offering perspective, caution, and strategic framing rather than prescriptive solutions.

Industry Advisors, Artisan Networks, and Aligned Market Access

More differentiated facilitators included access to industry advisors (n = 9), artisan or community networks (n = 8), and aligned market access (n = 7). These supports were unevenly distributed but described as highly stabilizing when present. Participants embedded in artisan networks described relational accountability that reinforced ethical sourcing. CR (F) emphasized that her relationships with production partners created shared responsibility rather than transactional exchange: “You just have to trust ... they guided me.” SBr (F) described the structural logic underlying her approach to market differentiation: building work around things that mass-volume competitors “couldn’t copy if they tried ... they could copy it, but it would look like crap.” That commitment to irreplicable craft created the conditions in which aligned

customers—those who understood and valued the distinction—naturally found her work. Participants without such networks reported greater precarity, highlighting uneven distribution of enabling infrastructure across the fashion ecosystem.

Cognitive, Ethical, and Adaptive Conditions

While relational supports operated externally, participants also emphasized internal orientations that enabled sustained engagement. As shown in Table 4.7, mindset reframing was universal (n = 18), flexibility and resourcefulness near-universal (n = 17), ethical clarity widely present (n = 16), and emotional or spiritual resilience present among ten participants (n = 10).

Table 4.7

Cognitive and Adaptive Conditions

Participant	Mindset Reframe (Progress over Perfection)	Ethical Clarity	Emotional / Spiritual Resilience	Flexibility and Resourcefulness
AI	+	+	+	+
AS	+		+	
AR	+	+	+	+
CR	+	+		+
CB	+		+	+
MD	+	+		+
RP	+	+		+
RD	+	+		+
SS	+	+	+	+
SM	+	+	+	+
SU	+	+	+	+
SBa	+	+		+
TP	+	+	+	+

Table 4.7 (continued)

Participant	Mindset Reframe (Progress over Perfection)	Ethical Clarity	Emotional / Spiritual Resilience	Flexibility and Resourcefulness
VO	+	+		+
YB	+	+	+	+
AK	+	+		+
HH	+	+	+	+
SBr	+	+		+
n+	**18**	**16**	**10**	**17**

Note. (+) indicates the condition was reported as a facilitator. Mindset reframing was universal (n = 18); emotional resilience was the most differentiated facilitator (n = 10).

Mindset Reframing: Progress over Perfection

All participants articulated some version of mindset reframing, expressed most commonly as a rejection of perfectionism. Sustainability was described as iterative practice rather than absolute purity—a framing that functioned as a stabilizing mechanism when confronted with unavoidable trade-offs. AI (F) described the orientation simply: "How can this be a little bit better? It's sort of a sponge-long way—just gathering and learning and adapting." HH (F) articulated the structural logic of this orientation most fully:

> There's always room for growth and always room for improvement and there's always room to learn. It's not realistic to think that at any point we're going to know everything. But it's about making the best decisions with the information that we have.

Participants frequently contrasted early expectations of complete transformation with later recognition of systemic limitation. The progress-over-perfection orientation allowed continued participation without abandoning ethical commitments when compromises were unavoidable.

Ethical Clarity as Decision Anchor

Ethical clarity functioned as an anchor during periods of intensified economic pressure. AK (F) articulated this quality directly:

> It's the piece that keeps me engaged in the industry at all at this point. I really have no interest in going and working for a company that is not practicing sustainable textiles in production.

For AK, ethical clarity did not merely sustain motivation—it defined the terms under which meaningful work remained possible. TP (IE) described framing sustainability within corporate environments in the language of financial benefit rather than ethical obligation: "When you start talking to financial people about these things and how sustainability helps the bottom line, that's really when you start to move the needle." Having a clear sense of what sustainability required—and how to translate that into institutional language—reduced ambiguity during supplier negotiations and budget discussions. Participants framed ethical clarity not as abstract belief but as operational filter: when confronted with competing priorities, returning to foundational values provided decision coherence.

Flexibility and Resourcefulness

Flexibility emerged as a near-universal adaptive capacity (n = 17). SBa (F/IE) described her response to financial and operational barriers as a process of concentrated deepening: "Really focusing on the core values of my labour—really high value of high quality pieces and focusing much more on the craft and going much deeper in slow design." Designing within constraint became generative rather than limiting—the narrowing of available options clarified what actually mattered. VO (PD) described COVID as permanently reframing her relationship to pre-production planning:

> We were kind of backed into a corner, not really having a lot of options, but at the same time, that allowed us to use existing stock of things that may otherwise go to waste.

> It kind of opened my eyes to thinking of things in that way—like first, let's see what we have before we go and develop new.

Participants consistently distinguished between compromising core values and adjusting implementation methods—flexibility was portrayed as strategic recalibration, not capitulation.

Emotional and Spiritual Resilience

Ten participants (AI, AS, AR, CB, SS, SM, SU, TP, YB, HH) referenced emotional or spiritual practices supporting long-term engagement, ranging from mindfulness and reflective journaling to faith-based grounding. SM (Ed-P) described sustaining herself through peer engagement and collaborative projects with like-minded faculty rather than through formal support structures—finding that working alongside colleagues who shared her orientation provided renewal when institutional environments were draining. YB (F) described how the war in Ukraine had made community-building both urgent and sustaining: the designer network she described was not merely professional infrastructure but a source of collective meaning during extreme disruption. The differentiated presence of emotional resilience underscores that sustainability persistence involves affective labor alongside technical and strategic competence—and that not all participants had equally developed frameworks for managing that labor.

Collective Reinforcement Through Focus Group Dialogue

Two virtual focus groups, each comprising four participants drawn from the interview pool, were conducted following the interview phase- FG1 comprising four participants (AS, CR, SS, YB) and FG2 comprising four participants (AI, MD, RP, YB) with YB attending both sessions. Their primary purpose was confirmatory: to assess whether findings identified in individual interviews held across collective dialogue. Participants in both sessions were provided with a summary of emerging analytic themes and invited to confirm, challenge, or extend them.

Across both sessions, participants confirmed the three primary structural challenges—cost and pricing viability, supply-chain instability, and consumer willingness to pay—as matching their own experience. In Focus Group 1, AS described the cost bind in terms that extended her interview account: "Being genuinely sustainable at every stage it costs so much and your profit margins are so so narrow you're so squeezed unless you're like a very luxe brand, there's not that much market space for you." SBa, joining that same session, extended the analysis to her own practice: "Sometimes I have to maybe save money and not do my things how I want to do them or compromise in this way." The focus group thus functioned not as a source of new structural challenges but as cross-participant validation that those challenges were shared rather than idiosyncratic.

The focus group dynamic also generated a dimension the interviews had not fully captured: the experience of isolation, and the corresponding value of collective dialogue itself. SBa (F/IE) named it most directly, reflecting on the contrast between her master's program and independent practice:

> When I did the master, the focus was really on sustainability and doing everything really slow. It was kind of a small community where everybody had the same mindset. Now that I'm done with it, yeah, it really feels like being a bit isolated because you don't have that community around you anymore. (Focus Group 1)

AS (Ed-P) articulated the institutional dimension of that isolation: "I don't work with many faculty that feel the way I do. There's some of us, but not most of us." The focus group sessions themselves—participants describing the rare experience of speaking with others who shared their frustrations and commitments—enacted the very community-as-sustaining-infrastructure that participants had identified in their interviews. MD (F/Ed-P) offered the most forward-looking framing of what collective engagement makes possible: "No single person is going to solve sustainability. We all have to do what we can, where we are, with what we have. And then that

collective effort is what will do something" (Focus Group 2). This observation reflects a pattern that appeared across both sessions: participants moving from an account of individual persistence under constraint toward a vision of distributed, community-based sustainability practice. The focus group data therefore confirm and extend the interview findings—not by introducing new structural challenges, but by demonstrating that the relational conditions enabling sustainability persistence are themselves experienced as insufficient in the absence of genuine community. A fuller discussion of how focus group dynamics inform interpretive synthesis and implications for practice is presented in Chapter 5.

Knowledge and Skill Development in Sustainable Fashion Practice

While previous sections examined how participants entered sustainability-oriented practice and the structural conditions shaping persistence, findings also reveal that sustainability is sustained through the development of complex, evolving professional competencies. Participants did not describe these competencies as formal training outcomes but as capacities developed through experience and necessity. Across interviews, designers emphasized the need to translate sustainability values into material decisions, negotiate with suppliers and clients, communicate trade-offs effectively, and adapt to evolving regulatory and market conditions.

As summarized in Tables 4.8-4.11, competencies clustered across four interrelated domains: technical and material competencies; operational and systems-based skills; relational and communicative capacities; and reflective and ethical reasoning. These domains operated interdependently. Participants frequently described learning in one domain prompting recalibration in another—improved material literacy influenced pricing models; supply-chain risk management required enhanced supplier negotiation; reflective reasoning shaped scaling decisions. Sustainability competence was iterative, experiential, and responsive to constraint.

Table 4.8

Knowledge and Skill Development in Sustainable Fashion Practice: Technical and Material Competencies

Role Key: F = Founder / Independent Practitioner; Ed-P = Educator–Practitioner; F/Ed-P = Hybrid Founder–Educator; IE = Industry / Supply-Chain Executive; F/IE = Founder/Industry Executive; PD = Product Development Manager

Initials	Role	Sustainable Material Literacy	Ethical Sourcing and Vetting	Circular / Zero-Waste Techniques	Repair & Longevity Practices
AI	F	✓	✓	✓	✓
AS	Ed-P	✓	✓		✓
AR	Ed-P	✓	✓		✓
CR	F	✓	✓	✓	✓
CB	F	✓	✓		✓
MD	F/Ed-P	✓	✓	✓	✓
RP	F	✓	✓	✓	✓
RD	F	✓	✓		✓
SS	F	✓	✓	✓	✓
SM	Ed-P	✓	✓		✓
SU	F/Ed-P	✓	✓	✓	✓
SBa	F/IE	✓	✓		✓
TP	IE	✓	✓		✓
VO	PD	✓	✓		✓
YB	F	✓	✓	✓	✓
AK	F	✓	✓		✓
HH	F	✓	✓		✓
SBr	F	✓	✓	✓	✓
n		**18**	**18**	**8**	**18**

Note. Sustainable material literacy and ethical sourcing are universal (n = 18). Circular/zero-waste techniques are differentiated (n = 8), concentrated among founders with production autonomy. Repair and longevity practices are universal (n = 18).

Table 4.9

Knowledge and Skill Development in Sustainable Fashion Practice: Operational and Systems-Based Skills

Role Key: F = Founder / Independent Practitioner; Ed-P = Educator–Practitioner; F/Ed-P = Hybrid Founder–Educator; IE = Industry / Supply-Chain Executive; F/IE = Founder/Industry Executive; PD = Product Development Manager

Initials	Role	Ethical Costing and Pricing	Workflow / Systems Redesign	Supply-Chain Risk Management	Scaling and Production Judgment
AI	F	✓	✓	✓	✓
AS	Ed-P	✓	✓		
AR	Ed-P	✓	✓	✓	
CR	F	✓	✓	✓	✓
CB	F	✓	✓	✓	✓
MD	F/Ed-P	✓	✓	✓	✓
RP	F	✓	✓	✓	✓
RD	F	✓	✓		✓
SS	F	✓	✓	✓	✓
SM	Ed-P	✓	✓		
SU	F/Ed-P	✓	✓	✓	✓
SBa	F/IE	✓	✓	✓	✓
TP	IE	✓	✓	✓	✓
VO	PD	✓	✓	✓	✓
YB	F	✓	✓	✓	✓
AK	F	✓	✓		✓
HH	F	✓	✓		✓
SBr	F	✓	✓	✓	✓
n		**18**	**18**	**13**	**15**

Note. Ethical costing and workflow redesign are universal (n = 18). Supply-chain risk management (n = 12) and scaling judgment (n = 14) are differentiated by role and operational exposure.

Table 4.10

Knowledge and Skill Development in Sustainable Fashion Practice: Relational, Communicative, and Reflective Capacities

Role Key: F = Founder / Independent Practitioner; Ed-P = Educator–Practitioner; F/Ed-P = Hybrid Founder–Educator; IE = Industry / Supply-Chain Executive; F/IE = Founder/Industry Executive; PD = Product Development Manager

Initials	Role	Collaboration and Collective Problem-Solving	Supplier Negotiation and Alignment	Transparency and Consumer Storytelling	Teaching and Knowledge Sharing
AI	F	✓	✓	✓	✓
AS	Ed-P	✓	✓	✓	✓
AR	Ed-P	✓	✓	✓	✓
CR	F	✓	✓	✓	
CB	F	✓	✓	✓	
MD	F/Ed-P	✓	✓	✓	✓
RP	F	✓	✓	✓	
RD	F	✓	✓	✓	
SS	F	✓	✓	✓	
SM	Ed-P	✓	✓	✓	✓
SU	F/Ed-P	✓	✓	✓	✓
SBa	F/IE	✓	✓	✓	✓
TP	IE	✓	✓	✓	✓
VO	PD	✓	✓	✓	
YB	F	✓	✓	✓	
AK	F	✓	✓	✓	
HH	F	✓	✓	✓	
SBr	F	✓	✓	✓	
n		**18**	**18**	**18**	**8**

Note. Collaboration, supplier negotiation, and consumer transparency are universal (n = 18). Teaching and knowledge sharing is a differentiated extension among educator–practitioners and hybrid founders (n = 8).

Table 4.11

Knowledge and Skill Development in Sustainable Fashion Practice: Reflective and Ethical Reasoning

Role Key: F = Founder / Independent Practitioner; Ed-P = Educator–Practitioner; F/Ed-P = Hybrid Founder–Educator; IE = Industry / Supply-Chain Executive; F/IE = Founder/Industry Executive; PD = Product Development Manager

Initials	Role	Ongoing Reflective Practice	Ethical Trade-Off Evaluation	Values-Based Decision-Making
AI	F	✓	✓	✓
AS	Ed-P	✓	✓	✓
AR	Ed-P	✓	✓	✓
CR	F	✓	✓	✓
CB	F	✓	✓	✓
MD	F/Ed-P	✓	✓	✓
RP	F	✓	✓	✓
RD	F	✓	✓	✓
SS	F	✓	✓	✓
SM	Ed-P	✓	✓	✓
SU	F/Ed-P	✓	✓	✓
SBa	F/IE	✓	✓	✓
TP	IE	✓	✓	✓
VO	PD	✓	✓	✓
YB	F	✓	✓	✓
AK	F	✓	✓	✓
HH	F	✓	✓	✓
SBr	F	✓	✓	✓
n		**18**	**18**	**18**

Note. All three reflective and ethical reasoning capacities are universal (n = 18), suggesting sustainability is maintained through interpretive judgment rather than compliance mechanism alone.

Technical and Material Competencies

Technical and material literacy emerged as foundational to sustainability-oriented practice. Participants consistently emphasized that ethical intention alone was insufficient without detailed understanding of textiles, sourcing systems, durability, toxicity, and lifecycle implications. This literacy was not acquired through static knowledge but constructed through experimentation, error, and repeated engagement with suppliers, trade shows, and material testing.

Several participants described early material experimentation as financially risky and technically disappointing. SM (Ed-P) described her first encounter with mushroom leather as illustrative of a wider pattern:

> When mushroom leather was like first starting, one of my colleagues said, we need to get a sample of this. And I spent like 100 pounds because the place was in the UK. We got these pieces of this stuff. It was so thick—like you really can't do anything with it.

Rather than abandoning experimentation, she described the experience as formative—attending trade shows, ordering samples, and testing unfamiliar textiles became routine practices through which she refined material judgment, ultimately arriving at a position she described as having "settled on a couple that I believe in"—materials she could "argue like a pro and con" with full confidence in the evidence behind the choice. This iterative pattern appeared across many participants: sustainable material literacy developed through narrowing options via testing, cost evaluation, durability trials, and supplier dialogue rather than through idealized selection.

Early enthusiasm for sustainable materials was often tempered by incomplete transparency. Developing sourcing competence required learning to verify supplier claims, request documentation, and differentiate marketing language from measurable impact. YB (F) described the challenge of finding reliable suppliers who were genuinely open to sustainable solutions, noting that even willing suppliers sometimes could not accommodate requests—a

constraint that required persistent investigation rather than one-time vetting. AI (F) framed the learning posture directly: “If I do something bad, I never want to do the same mistake twice. So I think, how can this be a little bit better? Just gathering and learning and adapting.” CR (F) described her commitment to end-of-life integrity extending to every material element of her product—trims, labels, packaging:

> You’d see a beautiful 100% cashmere garment with a disgusting polyester label. Even if the garment was going to biodegrade at end of life, that label would still be alive. So organic cotton labels, cotton trims—end of life, that product could fully biodegrade. But in doing that, you know what is expensive.

Her account illustrates that sustainable material literacy is not just about the primary fabric—it extends to every component and requires ongoing cost negotiation to implement fully. AS (Ed-P) described the cognitive dimension of this learning as requiring active disruption of prior habits and workflows—approaching each material decision with fresh scrutiny rather than defaulting to familiar industry conventions.

Circular and zero-waste techniques (n = 8) appeared most frequently among founders with production autonomy. SS (F) described requiring students to include deadstock fabric, textile recycling, or fabric technology in their portfolios—”It’s not an option for the future”—reflecting a pedagogical conviction that circular thinking must be embedded from the outset of design training, not treated as an elective concern. YB (F) described the challenge of finding suppliers open to sustainable material substitutions, noting that even when the goal was clear, supply-side constraints required persistent negotiation and flexibility. Repair and longevity practices (n = 18) were proactive design strategies across all participants, with construction techniques and materials selected explicitly to extend garment lifespan—anticipating garment behavior over time as an ethical design imperative.

Systems and Strategic Decision-Making

Ethical costing and workflow redesign were universally present (n = 18), while supply-chain risk management (n = 12) and scaling judgment (n = 14) varied by role exposure. Participants consistently described learning to cost products differently from conventional models. CR (F) described the reckoning as continuous: every decision to make a product "squeaky clean and pure"—organic cotton labels, biodegradable trims, traceable fabric—added a cost that the market did not automatically absorb. Learning to cost ethically meant never treating the cost sheet as static.

TP (IE) described how sustainability-oriented costing required designers to be present in the production room, not just the design studio:

> When you design that skirt, are you in the room where that person's cutting it? If I made that skirt hem just four inches smaller, it actually saves me two yards of fabric and doesn't change the look of my garment. The industry has been very much of the mindset: it's somebody else's problem. I'll let production worry about that. But you need to know this to be a more successful designer—so that you're making better margin on your clothes and you can continue to grow your business.

Her account illustrates that ethical costing is not a separate sustainability function but an extension of design competence—one that most design school training does not address. MD's (F/Ed-P) workflow redesign was inseparable from her founding premise:

> I don't make anything until it's ordered. That eliminates the overproduction risk entirely rather than managing it after the fact. And even the samples I'm making go home with the models who fit them.

VO (PD) described a parallel reorientation following COVID—integrating material review earlier in design stages, assessing what already existed before initiating new development, a change she described as permanently reframing her approach to pre-production planning.

Supply-chain risk management emerged prominently at larger scales and in corporate environments. SBa (F/IE) described establishing supply chain relationships in the year prior to

her interview as one of her most consequential operational decisions—recognizing that working locally in Austria gave her a foundation of reliability that larger, internationally sourced supply chains could not offer. SU's (F/Ed-P) on-demand model demonstrated a structural resilience the pandemic made visible: "We were a totally nimble on-demand model ... our factory only went out for two weeks—from a supply chain stability standpoint, we didn't deal with any of those rocky patches." Her account inverts the conventional disruption narrative: design decisions made before the crisis determined resilience during it.

Scaling decisions were described as complex ethical calculations. AK (F) described arriving at a "final, final, final decision" to shift away from private label and wholesale—not because it was financially easy, but because volumes conventional retail required made it increasingly difficult to regulate the natural dyes and sustainable practices of her artisan partners: "It really comes down to the fabric and the dyes more than the embroidery or the cut and sew piece." Among participants coded for scaling judgment, the most common pattern was integrated evaluation: weighing technical feasibility, operational sustainability, relational impact, and ethical thresholds simultaneously rather than sequentially.

Communication and Stakeholder Engagement

Relational competence was universally present (n = 18 across collaboration, negotiation, and transparency), and participants framed communication not as peripheral skill but as central mechanism enabling sustainability implementation.

TP (IE) described the supplier negotiation process as requiring both tenacity and translation:

> It takes tenacity. It takes pushing. It takes partners. I dangled in front of the supplier: at what point will it take for you to have the molds available in this country so that we can reduce the level of carbon? If you can give me that data, I can take it to my sister companies or other brands.

Her account frames supplier engagement not as ethical persuasion but as collaborative problem-solving in which sustainability's business case had to be made concrete and legible across organizational levels. CR (F) described building long-term supplier partnerships as a slow process of trust: "They introduced me to the certification board and they pushed me, which I really liked ... you're on the other side of the world and you just have to trust." For CR, that trust was not assumed but built through sustained engagement with suppliers who themselves had sustainability commitments—relationships that "kept me right in a lot of things." SBr (F) described consumer communication as rooted in differentiation rather than persuasion: "What kind of extensions of my brand can I launch that they cannot—they couldn't copy if they tried." By building work around craft that mass-volume competitors could not authentically replicate, she created the conditions in which aligned customers found her without requiring conventional marketing pressure.

Teaching and knowledge sharing (n = 8) were concentrated among educator-practitioners and hybrid founders. SM (Ed-P) described sustainability learning as embedded throughout her teaching practice—from material selection conversations to production decisions with students. AI (F) described taking her sustainability knowledge into a thought leadership role with brands, influencing how fashion companies approached their practice. MD (F/Ed-P) described the pedagogical dimension of her practice as extending outward from her brand:

> The more knowledge I can have, the better—on the best choice of fabrics, the best way to recycle things, the best way to get rid of my waste. And then the work is sharing that outward. Teaching it. Making it visible.

Participants consistently noted that explaining sourcing rationale clarified their own internal reasoning and exposed gaps requiring further research—teaching reinforced personal competence as much as it transmitted knowledge outward.

Adaptive and Reflective Capacities

If technical competence enabled informed sourcing decisions, reflective and ethical reasoning structured how those decisions were evaluated and recalibrated under constraint. Participants described sustainability not as rule adherence but as ongoing deliberation shaped by humility, trade-off awareness, and critical questioning.

CB (F) described the core orientation as openness to real-time education: "Put yourself in a position to be educated in real time because it's worthwhile and you're going to get a lot more out of it than you would otherwise." HH (F) articulated the ethical dimension: "There is always room for growth ... it is about making the best decisions with the information that we have." This framing allowed participants to navigate unavoidable trade-offs without abandoning commitment. CB described the process as dialogic rather than unilateral:

> We want to bounce or reflect the client's goals and values against our goals and values, where do we overlap and can we find a place that moves around that space? It's a compromise. But it kind of begins there and then you're able to kind of grow from there.

SM (Ed-P) described her sustainability orientation as fundamentally about continued learning: "I always want to learn more ... I would say I'm always open." That openness—to new materials, new evidence, new conversations with colleagues—was described as the animating disposition of her practice rather than a supplement to it. Learning was framed not as professional obligation alone but as ethical responsibility tied to impact awareness—active and intentional rather than passively received.

Interdependence of Sustainability Competencies

Although presented analytically as distinct domains, participants rarely experienced these competencies as separate in practice. CR's (F) account of costing captures the integration most concisely: every sourcing upgrade—organic cotton labels, biodegradable trims, traceable fabric—was simultaneously a technical decision, an operational recalculation, and a

communication challenge. SM's (Ed-P) experimentation with mushroom leather revealed not just material limitations but pedagogical ones: "A lot of the new materials you can't actually get your hands on ... students can never get to this stuff because it's not something you can buy in the store"—technical discovery reshaping how she approached curricular design. SBr's (F) decision to build work around things that mass-volume competitors "couldn't copy if they tried" was simultaneously a sourcing strategy, a scaling decision, a brand communication choice, and an ethical commitment to craft—four domains operating as one.

MD's (F/Ed-P) observation that sustainability required cutting it off "before you even get there"—producing only what is ordered, making only what is wanted—encapsulates the same multidimensional logic: a workflow decision that was simultaneously technical, operational, relational, and reflective. Sustainability competence was experienced as woven rather than segmented—learning occurred in feedback loops, growth in one area strengthened capacity in others, and gaps in one domain often destabilized the system as a whole.

Summary of Findings

This chapter examined how fashion and textile professionals enter, sustain, and enact sustainability-oriented practice within structurally constrained systems. Drawing primarily on in-depth interviews with 18 participants—supplemented by Critical Incident Questionnaire data from 32 respondents and confirmatory focus group dialogue—the findings illuminate sustainability as a developmental, relational, and skill-intensive professional orientation rather than a discrete event or fixed identity. Across roles, organizational contexts, and career stages, participants described sustainability not as peripheral specialization but as reconfiguration of professional practice under persistent systemic pressure.

Three major findings areas were presented: learning trajectories into sustainability-oriented work, challenges and facilitators shaping persistence, and knowledge and skill development required to operationalize sustainability commitments. Taken together, these findings depict sustainability-oriented practice as dynamic and negotiated—emerging through continuity or rupture, sustained under market constraint, and enacted through layered professional competencies.

Learning Trajectories: Continuity, Rupture, and Development Over Time

The first major findings area examined how participants entered sustainability-oriented practice. Two primary trajectories emerged: early value-aligned entry (n = 9) and later shifts prompted by professional or ethical dilemmas (n = 7), with two participants (CB and YB) exhibiting characteristics of both trajectories and discussed separately below. While analytically distinct, these trajectories converged over time in sustained practice.

Participants in the early value-aligned group described sustainability as baseline orientation rather than conversion. Within this group, meaningful variation appeared across three mechanisms: founding premise, in which sustainability was embedded in the logic of the business itself (MD, RP, AK, SBr); career curation, in which sustainability shaped employer and role selection over time (TP, SU); and pedagogical assumption, in which sustainability was treated as an implicit standard of design instruction prior to formal institutional endorsement (AR, SM, AS). These distinctions clarify that early alignment is not a single mechanism but a cluster of orientations united by the temporal fact that sustainability preceded, rather than followed, professional entry.

Later-shift participants described identifiable periods of tension that prompted reevaluation of prior norms. Catalytic conditions included material waste shock (n = 8), ethical

or emotional burnout (n = 6), professional disillusionment (n = 5), and exposure to social or environmental harm (n = 3). These experiences were often cumulative rather than singular, as illustrated by YB's slow-accumulation subtype. Despite differences in narrative structure, both groups ultimately engaged in sustained sustainability-oriented work and, by the time of interview, demonstrated comparable depth of commitment and operational sophistication.

Participants consistently emphasized that sustainability trajectories were nonlinear. CIQ data reinforced this developmental framing: although 30 of 32 respondents referenced catalytic professional events, these were not uniformly transformative ruptures. Reflective practice and value reframing were universal responses (n = 32), indicating that sustainability-oriented development is sustained through iterative interpretation embedded in practice.

Challenges and Facilitators: Sustainability Within Market Logics

The second major findings area examined structural and market-based conditions shaping sustainability enactment. Cost and pricing viability was a universal constraint (n = 18), with participants describing ongoing tension between ethical sourcing standards and economic viability—CR absorbing costs the market refused to validate, TP demonstrating how sustainability could improve margins when framed financially, SU documenting the existential pressure facing subscale founders unable to access the supplier relationships available at larger volume.

Scale misalignment (n = 9) and limited access to sustainable materials (n = 10) further complicated sourcing, while consumer willingness to pay (n = 8) and institutional constraints (n = 5) compounded pressure at the market and policy levels. COVID-19-related supply-chain disruptions, tariff volatility, and—in YB's account—active conflict in Ukraine surfaced as contextual pressures compounding these structural challenges rather than as isolated events.

Greenwashing and sustainability language dilution operated as a more diffuse structural challenge, eroding the communicative value of genuine commitment across the marketplace.

Four participants (RD, CB, SBr, AK) described community-supported practice as a distinct structural strategy—trading market scale for relational stability and locating the conditions of sustainable practice in networks of mutual commitment. Two virtual focus groups confirmed the three primary structural challenges and extended the interview findings by surfacing the experience of isolation as a shared condition. As MD observed, "No single person is going to solve sustainability. We all have to do what we can, where we are, with what we have. And then that collective effort is what will do something."

Sustainability was sustained through layered facilitating conditions. Peer collaboration and mentorship were universally reported (n = 18). Mindset reframing (n = 18), flexibility and resourcefulness (n = 17), ethical clarity (n = 16), and emotional resilience (n = 10) enabled continued engagement within constrained systems. Facilitators did not remove structural constraints—they mediated their impact, sustaining practice through overlapping scaffolds rather than any single support.

Skill Development: Sustainability as Integrated Professional Practice

The third major findings area identified knowledge and skill development as central to sustainability-oriented practice. Across four domains—technical and material literacy, operational and systems-based skills, relational and communicative capacities, and reflective and ethical reasoning—participants described competencies developed through experience and necessity rather than formal training.

Technical and material literacy was universal (n = 18), constructed through experimentation, error, and supplier dialogue. Ethical costing and workflow redesign were

universal operational skills (n = 18), with supply-chain risk management (n = 12) and scaling judgment (n = 14) differentiated by role and exposure. Relational capacities—supplier negotiation, consumer transparency, and peer collaboration—were universal (n = 18), with teaching as a differentiated extension among educator-practitioners (n = 8). Reflective and ethical reasoning was universal (n = 18), functioning not as fixed rule adherence but as ongoing deliberation through which trade-offs were evaluated and recalibrated as conditions changed.

These competencies were interdependent in practice. Technical discovery triggered operational redesign; scaling decisions required ethical reflection and relational negotiation; reflective reasoning integrated material knowledge, financial viability, and stakeholder communication. Sustainability competence was experienced not as segmented expertise but as integrated professional development woven through practice.

Convergence Across Findings Areas

Across trajectories, structural contexts, and skill domains, five convergent patterns emerge. Sustainability-oriented practice is developmental: whether emerging through continuity or rupture, it unfolds over time through experimentation, recalibration, and reflection. It is relational, with peer networks, mentorship, supplier partnerships, and community structures serving as central mechanisms of enactment. It is structurally situated, as market logics, pricing pressures, scale constraints, and institutional limitations shape practice form and pace. It is competence-based, requiring coordinated development across technical, operational, relational, and reflective domains. And it is ongoing: participants consistently described their practices as evolving rather than finalized, with new materials, shifting standards, supply-chain disruptions, and market changes necessitating continual adaptation. Community-supported practice emerged as a fifth structural response to these convergent pressures—distinct from individual resilience in

that it locates sustainability conditions in collective infrastructure rather than personal capacity alone.

Findings Lead to Interpretation

This chapter has presented descriptive findings regarding how sustainability-oriented practice is entered, sustained, and enacted among fashion and textile professionals. The data illustrate variability in entry pathways, universality of structural constraint, layered facilitating conditions, and centrality of integrated skill development. The focus group data confirmed these patterns across collective dialogue and extended them by surfacing the relational dimension of isolation and persistence as shared rather than individual experience. The following chapter interprets these findings in relation to adult learning, professional identity formation, and organizational adaptation, situating the developmental, relational, and competence-based patterns identified here within broader conceptual frameworks, and presenting a fuller synthesis of what the focus group dialogue revealed about how participants make collective meaning of their sustainability practice.

Chapter 5: Discussion, Implications, Recommendations, and Conclusions

Purpose and Structure of the Chapter

This chapter moves from description to interpretation. Whereas Chapter 4 presented the findings of this qualitative inquiry into sustainability-oriented practice among independent fashion designers, Chapter 5 situates those findings within adult learning theory and sustainability scholarship to clarify their broader theoretical and practical significance. The purpose is not to restate themes, but to interpret how designers' experiences confirm, complicate, and extend existing understandings of experiential learning, professional identity formation, and sustainability practice under structural constraint.

The interpretive lens is grounded primarily in experiential learning theory (Boud, 1993; Dewey, 1938; Kolb, 1984; Schön, 1983), which conceptualizes learning as a cyclical process through which experience, reflection, abstraction, and experimentation interact to generate adaptive knowledge. This framework is particularly suited to the study's focus on sustainability as lived professional practice, where learning unfolds through material experimentation, ethical tension, and iterative recalibration within dynamic market conditions. The findings are also interpreted in alignment with transformative learning scholarship (Cranton, 2006; Mezirow, 1991; Taylor, 2007), especially in relation to disorienting dilemmas and shifts in meaning perspectives—not to center radical perspective transformation as the primary analytic concern, but to examine whether and how designers' sustainability commitments reflect deeper reorientations of values and assumptions. Communities of practice theory (Lave & Wenger, 1991; Wenger, 1998) and identity and agency scholarship (Emirbayer & Mische, 1998; Ibarra,

1999) further inform interpretation of sustainability as socially distributed, relationally reinforced, and structurally negotiated practice.

The urgency of this inquiry is inseparable from the scale of the crisis it addresses. The global fashion industry remains one of the most environmentally and socially costly systems in the world economy—responsible for an estimated 8% to 10% of annual global carbon emissions, more than the combined emissions of international flights and maritime shipping (Niinimäki et al., 2020; United Nations Environment Programme [UNEP], 2023), significant freshwater depletion at a scale second only to agriculture (Fletcher & Grose, 2012; Niinimäki et al., 2020), and the generation of textile waste at volumes that no current recycling infrastructure can absorb (Ellen MacArthur Foundation, 2024). These environmental consequences are not distributed equitably. Production is concentrated in regions where regulatory enforcement is limited, labor protections are weakest, and the communities bearing the greatest ecological burden have the least power to negotiate the terms of that burden (Brydges et al., 2020; England, 2024). Garment workers—overwhelmingly women in the Global South—absorb the human cost of an industry whose pricing logic depends on their economic marginalization (Brydges et al., 2020; England, 2024). Decolonial analyses of fashion sustainability argue, compellingly, that environmental progress decoupled from labor justice and geopolitical equity is not sustainability at all—it is a rebranding of extraction (England, 2024).

Sustainability in fashion must also be understood as a question of power, access, and structural inequality, not simply as a matter of better individual choices or premium consumer preference. In this limited but important sense, a decolonial perspective helps clarify that the costs of the global fashion system are unevenly distributed: environmental harm, labor exploitation, and production risk are often displaced onto communities and regions with the least

power to shape market terms, while the benefits of "sustainable" consumption are too often framed through affluent Western markets. The findings of this study therefore should not be read to suggest that sustainability properly belongs to those who can afford higher-priced goods. Rather, they underscore the need for systemic change—through policy, education, institutional accountability, and supply-chain reform—so that sustainability is not treated as an elite option, but as a broader structural responsibility.

These structural realities constitute the conditions within which the designers in this study built their practices. They are not background context; they are the reason this research exists. Understanding how individual practitioners learn to navigate, resist, and work within these systems matters precisely because systemic transformation—while necessary—does not happen abstractly. It happens through the accumulated decisions of people who have internalized a different set of values and developed the professional capacity to act on them under pressure. The COVID-19 pandemic made this plain: supply chains optimized for cost and speed collapsed under disruption, exposing the precarity of garment workers, the fragility of sourcing relationships, and the degree to which sustainability commitments were embedded in practice or merely performed in marketing (Brydges et al., 2020). More recently, the imposition of new tariff regimes has introduced a further structural stress test—compressing margins, destabilizing sourcing partnerships, and forcing designers to make rapid decisions about which commitments can be preserved and which must be renegotiated. Several participants in this study were navigating exactly these pressures as the research concluded; a small number did not survive them.

It is against this backdrop—of ecological crisis, labor inequity, pandemic disruption, and trade volatility—that sustainability-oriented practice must be understood not as a niche market

position but as a form of moral and professional persistence within systems designed to reward the opposite. The designers who participated in this study did not achieve sustainability; they practiced it, imperfectly and recurrently, in conditions that consistently pushed back. What this study contributes is not a model of how sustainability is achieved, but an account of how it is learned, sustained, and enacted by practitioners who have chosen to hold a line—and what that requires of them, of their educators, and of the institutions around them.

The chapter proceeds as follows. The first section interprets sustainability as experiential learning under structural constraint, tracing how designers enter sustainability practice through experiential disruption, persist through iterative adaptation, construct knowledge through reflective engagement, and consolidate professional identity over time. The COVID-19 pandemic and its aftermath—including tariff volatility—are examined as structural stress tests within that arc. The second section shifts to communities of practice, interpreting the relational and participatory dimensions of sustainability learning. The third section addresses skill development, professional identity, and the exercise of bounded agency. A synthesis section draws these threads together, followed by theoretical contributions, an explicit mapping of facilitators and barriers, and implications and recommendations. The chapter closes with a revisitation of original assumptions, a differentiated limitations discussion, and a final researcher reflection.

Sustainability as Experiential Learning Under Structural Constraint

Experiential Disruption and Value-Oriented Entry

Experiential learning theory conceptualizes learning as an adaptive process through which experience, reflection, abstraction, and experimentation interact to generate revised understanding and action (Dewey, 1938; Jarvis, 2006; Kolb, 1984, 2014). Experience becomes

educative only when subjected to reflective inquiry that reorganizes meaning and informs subsequent practice (Boud et al., 1985; Schön, 1983). The entry narratives of the 18 designers in this study align closely with this framing. Designers did not typically arrive at sustainability through formal curricular exposure alone; their commitments emerged through lived encounters with ethically dissonant industry practices—waste accumulation, opaque sourcing, labor inequities, and systemic overproduction. These encounters functioned as reflective triggers, compelling designers to interrogate previously normalized practices and reconsider their professional positioning within the fashion system.

Two primary entry trajectories emerged from the data. Nine of 18 participants described early value-aligned entry—sustainability was embedded in the founding logic of their practice, shaped by familial resourcefulness, cultural context, or pedagogical identity, and did not require a disorienting event to initiate. Seven of 18 described later shifts prompted by professional or ethical dilemmas: material waste shock and ethical or emotional burnout were the most frequently reported catalysts (n = 6 each), followed by professional disillusionment (n = 5) and direct exposure to social or environmental harm (n = 3). These narratives partially resonate with transformative learning scholarship, which conceptualizes adult development as catalyzed by disorienting dilemmas that destabilize meaning schemes and prompt critical reflection on assumptions (Cranton, 2006; Hoggan & Finnegan, 2023; Mezirow, 1991). However, the dilemmas described were rarely singular, identity-shattering events. They appeared instead as recurring tensions embedded in the everyday realities of professional practice—persistent friction between personal values and commercial expectations. Fourteen of 18 participants described this friction as ongoing rather than episodic, suggesting that sustainability-oriented

entry reflects conditional disruption: experiences that provoke reflection and value clarification without necessarily producing dramatic epistemic reconstruction.

What emerged across cases was experiential recalibration rather than discrete perspective transformation. Learning unfolded through repeated exposure to ethical tension followed by experimentation—altering material sourcing, adjusting production scale, renegotiating supplier relationships, or reframing brand narratives. This mirrors Kolb's (1984) experiential cycle and Jarvis's (2006) view of learning as biography in process. Illeris (2018) emphasizes that adult learning integrates cognitive, emotional, and social dimensions simultaneously; participants' narratives reflect precisely this, as emotional discomfort with industry practices intersected with emerging ethical commitments. Sustainability appears not as ideological conversion but as cumulative meaning-making enacted through reflective practice.

Notably, neither age, prior industry role, formal education level, nor years of experience significantly predicted sustained commitment—a finding that held consistently across all 18 interview participants and was reinforced by the broader CIQ data. One might reasonably expect that more experienced practitioners, or those with prior corporate exposure, would be better structurally positioned to maintain their sustainability commitments. Neither pattern held. What predicted persistence was not who designers were demographically, but how they interpreted and responded to disruption—integrating what Dirkx (1998) describes as the emotional and identity dimensions of meaning-making alongside cognitive realignment. This finding has direct implications for how sustainability education and mentorship are designed and is addressed explicitly in the recommendations that follow.

Iterative Adaptation Under Structural Constraint

Persistence within sustainability-oriented practice is shaped by structural negotiation. Designers consistently described operating within systems that reward speed, scale, and cost minimization—conditions that complicate ethical sourcing, limit supply-chain transparency, and constrain experimentation. These findings resonate with sustainability scholarship documenting the structural inertia of the global fashion system (Dobos, 2022; Fletcher & Grose, 2012). Crucially, designers' responses illuminate experiential learning not as abstract reflection but as adaptation enacted under real commercial pressure.

Experiential learning theory emphasizes experimentation as the stage in which new understandings are tested in action (Kolb, 1984, 2014), yet much of the literature assumes sufficient autonomy for learners to cycle freely. The designers in this study engaged in similar cycles, but their experimentation was bounded by material minimums, cash-flow limitations, consumer price sensitivity, and regulatory inconsistencies. Rather than suspending constraint, they learned through it—each sourcing decision, production adjustment, or pricing recalibration becoming a site of iterative problem-solving under pressure. Jarvis (2006) and Illeris (2018) emphasize that learning is socially situated and mediated by institutional conditions; the designers' narratives confirm this expanded view. Sustainability commitments were neither abandoned nor naïvely idealized when confronted with constraint; they were recalibrated. This is best understood as reflection-in-action under constraint (Schön, 1983).

From an agency perspective, Emirbayer and Mische (1998) conceptualize agency as temporally embedded and structurally conditioned, shaped by past trajectories, present contexts, and imagined futures. Biesta and Tedder (2007) similarly argue that agency is achieved through engagement with ecological conditions rather than exercised independently of them. The

designers in this study exemplify such ecological agency—exercising commitment within limits, interpreting constraint not as definitive prohibition but as a design problem requiring creative response. Enterprise architecture further shaped this dynamic: designers operating at smaller production scales described greater flexibility in sourcing, while those scaling into wholesale markets encountered intensified rigidity, consistent with global value chain research on how power asymmetries influence decision latitude (Dobos, 2022; Gereffi, 1994).

Situated Knowledge Construction and Reflective Practice

The findings reveal sustainability-oriented practice as ongoing knowledge construction embedded in material engagement. Designers consistently described learning not as mastery achieved prior to practice but as competence developed through experimentation, revision, and failure. Formal education was characterized as partial or foundational, while durable sustainability expertise emerged through lived negotiation with fibers, suppliers, certifications, waste streams, and consumer expectations—affirming that knowledge is created through the transformation of experience rather than transmitted as static content (Dewey, 1938; Kolb, 1984).

Reflection in this study was not abstract; it was anchored in material consequence—fabric performance, cost implications, supplier reliability, customer response. Boud's framework (Boud, 1993; Boud et al., 1985) deepens this by emphasizing the affective dimension of reflection: designers described frustration with supply-chain opacity, anxiety over cost trade-offs, and pride in reduced waste outcomes. These affective responses functioned as interpretive signals guiding subsequent decisions. Sustainability competence thus appears as emotionally informed judgment—an integration of technical information, ethical commitment, and felt responsibility that aligns with Schön's (1983) notion of reflection-in-action and with Illeris's

(2018) assertion that adult learning encompasses cognitive, emotional, and contextual dimensions simultaneously.

In entrepreneurial sustainability contexts, learning manifests as deepening practice rather than declarative perspective change. Designers demonstrated improved calibration over time—more precise sourcing questions, clearer communication of sustainability values, stronger negotiation strategies—rather than explicit articulation of transformed epistemologies. Sustainability competence is therefore not static expertise but adaptive fluency, developed through sustained cycles of engagement, reflection, and revision within evolving structural conditions.

Identity Consolidation and Bounded Agency

As sustainability commitments persisted over time, they became increasingly integrated into designers' professional identities. Participants did not describe sustainability as an external add-on to creative practice; it gradually became inseparable from how they defined themselves as designers. This reflects professional identity scholarship conceptualizing identity as constructed through iterative enactment rather than declared affiliation (Ibarra, 1999; Pratt et al., 2006). Identity was constructed through cumulative decisions—material substitutions, supplier negotiations, refusals of certain contracts, adjustments to production scale—that reinforced ethical self-conception over time. Fourteen of 18 participants described this consolidation explicitly, articulating a point at which sustainability shifted from something they were working toward to something constitutive of how they worked.

Repeated cycles of experimentation and reflection stabilized sustainability commitments into habitual orientation. Designers no longer asked whether to pursue sustainability; they negotiated how to do so under given conditions. Rather than recounting dramatic ruptures

followed by wholesale reconstruction of worldview, participants described increasing clarity regarding what they would and would not compromise. This pattern aligns with Hoggan and Finnegan's (2023) argument that adult transformation often unfolds gradually within ongoing moral complexity. Persistence through constraint deepened rather than diluted commitment—suggesting that experiential learning under pressure may solidify ethical orientation rather than erode it.

COVID-19, Tariffs, and the Structural Stress Test

This study's fourth research question examined how sustainability-focused designers reacted, responded, and adapted to COVID-19 and its ongoing impacts—a focus that was embedded in the study's formal design from the outset. Over the extended duration of the research, spanning nearly a decade of engagement with the topic and a formal data collection period from October 2023 through September 2025, COVID-19 transformed from a named research focus into a lived methodological reality: participants were navigating pandemic consequences in real time, and the data captured that experience as it unfolded rather than retrospectively. As prior scholarship has documented, the pandemic exposed fragilities embedded within globalized fashion supply chains, including labor precarity, payment instability, and material bottlenecks (Brydges et al., 2020). The pandemic did not introduce ethical tension into designers' work; it amplified existing knowing–doing gaps and made visible the depth at which sustainability had been embedded—or not—within professional identity and business structure. These conditions illuminate the distinction between espoused commitments and enacted routines (Argyris & Schön, 1974). For some designers, sustainability principles were temporarily deferred as financial survival became paramount. For others, crisis clarified priorities and reinforced alignment between values and action.

Responses varied according to designers' relational networks and structural positioning. Eleven of the 18 participants reported that established supplier partnerships, smaller production scales, or diversified revenue streams provided greater flexibility in maintaining sustainability-oriented decisions. Seven described sharper trade-offs under tighter margins, reflecting the ecological nature of agency—wherein the capacity to act emerges through interaction between individuals and their environments rather than through conviction alone (Biesta & Tedder, 2007).

Crisis accelerated experiential learning processes rather than suspending them. Designers described experimenting with localized production, digital sampling, pre-order systems, or reduced inventory models—adaptations requiring rapid cycles of reflection and action under heightened uncertainty. These shifts involved incremental recalibration rather than dramatic reorientation, consistent with scholarship that conceptualizes transformation as gradual and contextually embedded (Hoggan & Finnegan, 2023).

The period following the pandemic introduced additional structural pressure that extended and complicated the COVID-19 stress test. New tariff regimes compressed margins further, destabilized sourcing partnerships that had only recently been rebuilt, and confronted designers with decisions about which commitments could survive another round of economic volatility. For several participants, this period proved decisive: businesses that had navigated pandemic disruption could not absorb the compounding pressure of trade volatility on top of already narrow margins. The findings suggest that crisis operates less as a discrete turning point and more as an amplifier—and that successive crises, arriving before prior adaptations have fully stabilized, represent a distinct and undertheorized challenge for sustainability persistence.

Supports, Constraints, and Communities of Practice

Sustainability-oriented learning is rarely isolated. Designers' commitments were shaped, reinforced, and at times challenged through relational engagement with mentors, collaborators, suppliers, and peer networks. To interpret these dynamics, a shift from an individual-centered learning frame to a socially distributed one is necessary. Communities of practice theory provides that lens.

Lave and Wenger (1991) conceptualize learning as legitimate peripheral participation in shared practices, where newcomers gradually acquire competence through engagement with more experienced members. Wenger (1998) further elaborates that learning is inseparable from participation in social systems of meaning; identity forms through negotiated engagement within communities organized around shared enterprise. Sustainability competence in this study developed not only through individual experimentation but through dialogue with mentors, supplier relationships, collaborative troubleshooting, and shared interpretation of industry challenges.

Mentorship emerged as particularly significant. Eight of 18 participants explicitly identified mentorship as a meaningful catalyst in their sustainability development, though its form varied considerably by professional context. Three distinct types emerged from the data. Academic and program mentors—described primarily by educator-practitioners and founders who came through design education—functioned as epistemic validation, affirming sustainability as intellectually and professionally serious at a formative stage. Peer collaborators—shared studio environments, informal industry networks, and professional collectives—served as the primary mentorship vehicle for several founders, offering a space where sustainability knowledge was negotiated collectively rather than transmitted hierarchically. Industry and

institutional mentors—factory owners, supply chain partners, and corporate advisors—operated differently still, providing not values reinforcement but institutional fluency: learning whose language to speak and when in order to make sustainability legible within environments organized around scale, margin, and speed. Notably, five participants—primarily early-stage founders—described initial periods of isolation in which no meaningful mentorship was accessible, underscoring that the relational infrastructure supporting sustainability development is unevenly distributed and cannot be assumed. Mentors did not simply transmit technical information; they provided interpretive frameworks for understanding trade-offs, risk, and ethical responsibility—scaffolding that shaped not just what designers knew, but how they evaluated and acted upon that knowledge.

Peer dialogue functioned as an equally important site of collective meaning-making, and its significance extended well beyond informal exchange. Peer collaboration was universally present across all 18 participants—the only facilitating condition, alongside mentorship, to appear without exception—underscoring that sustainability-oriented practice is fundamentally relational in character. Focus group exchanges in this study were especially illuminating in this regard: designers articulated common frustrations regarding sourcing limitations, affirmed one another's incremental successes, and collectively reframed perceived failures as systemic rather than personal shortcomings. Sustainability commitments that felt isolating in individual interviews became normalized through collaborative exchange. In this context, learning was not merely reinforced socially; it was socially produced—consistent with Wenger's (1998) emphasis on shared repertoires as the substance of community learning.

What the focus group sessions revealed most strikingly was the degree to which isolation had become a defining feature of sustainability-oriented practice once formal programs or

institutional contexts ended. SBa (F/IE) described the contrast between the contained community of her master's program—where sustainability was ambient and shared—and the experience of independent practice: finding herself without others who held the same orientation or could engage seriously with the same tensions. AS (Ed-P) named a parallel institutional version: working within a faculty where sustainability commitments were present but minority, leaving her to navigate without the reinforcement that shared professional culture provides. The focus group sessions themselves—participants describing the rare experience of speaking openly with others who shared their frustrations, their incremental wins, and their structural challenges—demonstrated in real time the value of what many participants had found only sporadically and often late in their careers. As MD put it in Focus Group 2: sustainability cannot be solved individually; the collective effort is what ultimately moves the needle. That observation, emerging in dialogue rather than in a solo interview, reflects something the data consistently suggest: peer networks do not merely support sustainability practice—for many practitioners, they constitute the conditions under which it remains possible at all.

This relational reinforcement intersects with identity formation. Participation in sustainability-oriented networks recalibrated benchmarks of success: what appeared commercially risky in mainstream fashion contexts became normalized within ethically aligned circles. Designers' sustainability identities were strengthened when recognized and validated within professional networks—providing the interpretive scaffolding that stabilized identity over time. Conversely, several participants described how the absence of supportive networks intensified the strain of structural constraint.

While the importance of relational support is well established in communities of practice theory, what emerged as particularly striking in this study was the extent to which sustainability

persistence appeared dependent on relational validation rather than solely individual conviction. This was not what I anticipated. Going into the research, I expected structural conditions and personal values to be the primary explanatory variables—the relational infrastructure turned out to be equally, and in some cases more, determinative. Rather than functioning as supplemental support, participation in sustainability-oriented networks often reshaped what designers perceived as viable, effectively recalibrating their interpretation of risk, success, and professional legitimacy. Isolation, it turned out, was not merely uncomfortable—it was developmentally costly.

Communities, however, did not eliminate structural limitation. Global value chain scholarship highlights how power asymmetries shape decision latitude across supply networks (Dobos, 2022; Gereffi, 1994). Social participation may strengthen ethical resolve, but sustainability practice continues to require negotiation within systemic limits. As Fenwick (2003) cautions, social learning unfolds within power-laden environments rather than neutral spaces of shared growth. Designers who maintained their sustainability commitments over extended periods consistently referenced networks of shared practice—but those networks were generative without being insulating.

Skill Development, Professional Identity, and Agency Within Constraint

Professional Identity and Skill as Co-Constitutive

The findings illuminate sustainability as an evolving dimension of professional identity that co-develops with skill. Designers did not describe sustainability as strategic positioning or operational preference. Over time, it became constitutive of how they understood themselves. Early commitments were tentative and experimental; through sustained engagement—material experimentation, supplier negotiation, boundary-setting with clients—designers increasingly

articulated sustainability not as optional but as integral. This consolidation reflects what Ibarra (1999) describes as provisional selves gradually becoming authentic identities through practice.

As sustainability became integrated into professional identity, skill development followed—not as neutral technical acquisition, but as enactment of that identity. All 18 participants demonstrated universal competencies in sustainable material literacy, ethical sourcing, ethical costing, workflow redesign, collaboration, supplier negotiation, and consumer transparency. More differentiated skills emerged by role and structural context: supply-chain risk management was present for 12 of 18; scaling judgment for 14 of 18; circular and zero-waste techniques for 8 of 18, concentrated among founders with production autonomy; and teaching and knowledge sharing for 8 of 18, primarily among educator-practitioners and hybrid founders. Failed sourcing experiments informed subsequent inquiry; negotiation setbacks refined communication strategies; misaligned consumer messaging prompted recalibration of brand narrative. Each adjustment strengthened both skill and identity. These competencies—material literacy, supplier negotiation, lifecycle analysis, ethical communication, and adaptive pricing—are not incidental findings; they represent the specific learning domains that sustainability education, mentorship programs, and professional development infrastructure should be deliberately designed to cultivate. The recommendations that follow are organized around precisely these gaps.

Skill development in this context was evaluative as well as technical. Designers learned to interpret trade-offs: when to prioritize local sourcing over cost efficiency, when to reduce product variety to minimize waste, when to absorb margin loss to preserve ethical alignment. This complicates simplistic accounts of green skills as transferable technical knowledge. Skills

were shaped by identity and constraint simultaneously—they cannot be abstracted from professional context.

Enacting Bounded Agency

The consolidation of sustainability identity and aligned skills converges in the enactment of agency. Agency in this study does not appear as unbounded autonomy but as intentional action exercised within structural limitation. Emirbayer and Mische (1998) conceptualize agency as temporally embedded, integrating past experience, present judgment, and projected futures. Designers demonstrated precisely such temporal orientation: past experiences of industry contradiction informed present decision-making, while imagined sustainable futures shaped risk tolerance and strategic adaptation.

Biesta and Tedder (2007) argue that agency is achieved in relation to ecological conditions. The designers in this study illustrate this. Some reduced scale to preserve material integrity; others diversified product lines to stabilize revenue; several accepted slower growth trajectories to avoid compromising sustainability commitments. These decisions reflect constrained intentionality—action calibrated within structural realities. Persistence under constraint strengthened rather than weakened professional resolve: designers who endured described clearer articulation of non-negotiables and more strategic flexibility in other domains. Constraint did not extinguish sustainability identity; it refined it.

Participants' accounts further suggest that these skills and identity formations were tested under acute disruption. Adaptive sourcing strategies, financial literacy, digital experimentation, and relational negotiation became especially salient during COVID-19, requiring designers to enact agency in real time rather than through incremental adjustment. The imposition of new tariff regimes in the period that followed presented a parallel test—compressing margins,

disrupting sourcing partnerships that had only recently been rebuilt, and demanding the same rapid mobilization of financial and relational competencies under renewed uncertainty. Consistent with an ecological understanding of agency (Biesta & Tedder, 2007), the capacity to sustain sustainability-oriented practice through successive structural disruptions depended on how effectively learned competencies could be mobilized within constrained structural environments—and on whether those competencies had been developed deeply enough to remain functional when conditions shifted again before prior adaptations had fully stabilized.

Synthesis: An Integrated Developmental Trajectory

The preceding sections have examined sustainability-oriented practice across three interlocking dimensions: as a process of reflective adaptation within commercially constrained environments, as participation in communities of practice that co-construct meaning and identity, and as the consolidation of professional identity expressed through skilled, bounded agency. These dimensions are mutually constitutive. Experiential disruption initiates reflection—9 of 18 participants entered sustainability through early value alignment, while 7 described identifiable catalytic dilemmas that destabilized prior assumptions—but reflection alone does not sustain commitment. It requires social validation and interpretive scaffolding, a finding borne out by the universality of peer collaboration and mentorship across all 18 participants. Participatory reinforcement shapes the conditions under which identity consolidates—not as a passive byproduct of social belonging, but as an active alignment between enacted values and professional self-concept. And identity, once stabilized, reconfigures agency: 14 of 18 participants described a point at which sustainability shifted from something they were working toward to something constitutive of how they worked—a consolidation that changed not whether they pursued sustainability but how they negotiated its terms under constraint.

This integration clarifies the temporal dimension of sustainability development. Entry is marked by experiential disruption—whether gradual or catalytic. Persistence is sustained through iterative adaptation within structural constraint—all 18 participants described cost and pricing viability as a defining ongoing pressure, while 17 of 18 demonstrated flexibility and resourcefulness as the adaptive capacity that kept them in the work. Over time, this iterative engagement consolidates into identity and expands into skill; all 18 demonstrated universal competencies in material literacy, ethical costing, and relational negotiation, while more differentiated skills in supply-chain risk management, scaling judgment, and circular design emerged in proportion to structural exposure. The trajectory is neither linear nor uniform—it is punctuated by crisis, shaped by enterprise architecture, and mediated by professional networks. What emerges is a developmental arc that is simultaneously individual and social, cognitive and affective, experiential and participatory.

The COVID-19 findings, and the tariff pressures that followed, are instructive here: the designers who navigated disruption most effectively were not those with the most favorable structural conditions, but those whose sustainability commitments had become most deeply integrated across all three dimensions—embedded in experiential knowledge, sustained by relational networks, and anchored in professional identity. Eleven of 18 reported that established supplier partnerships, smaller production scales, or diversified revenue streams provided meaningful flexibility during COVID-19; the 7 who described sharper trade-offs were more often those whose relational and identity infrastructure was thinner. Resilience, in this sense, is not a trait but a developmental achievement—one built incrementally through the same cycles of disruption, reflection, and recalibration that characterize sustainability learning from the outset. That reframing has consequences for how resilience is taught, mentored, and supported: if

resilience is developmental rather than dispositional, then the task of educators and program designers is not to select for resilient practitioners but to build the conditions—reflective practice, relational infrastructure, iterative constraint—under which resilience can be cultivated.

Contributions to Adult Learning and Sustainability Scholarship

Situated within adult learning theory and sustainability scholarship, the findings advance understanding across four interconnected areas. Rather than restating what the prior sections have established, each contribution is stated here as a discrete theoretical claim with its specific implications for the field.

Resilience as Developmental Achievement: Implications for Complexity Learning

A central contribution of this study concerns how resilience is conceptualized in sustainability practice and, by extension, in adult learning under conditions of structural complexity. Conventional treatments of resilience in professional and organizational scholarship have tended to frame it as a stable dispositional trait—a quality that some practitioners possess and others do not, which predicts whether they will persist through disruption or exit. The findings of this study challenge that framing directly. Across 18 participants whose sustainability commitments were tested repeatedly by supply-chain volatility, consumer price resistance, institutional inertia, pandemic disruption, and tariff volatility, resilience did not present as a stable attribute brought intact to the work. It presented as a developmental achievement—built incrementally, through the accumulation of disruption-reflection-recalibration cycles over extended periods of practice. Designers who navigated the most acute structural stress most effectively were not those with the most favorable conditions or the most impressive professional profiles. They were those whose sustainability commitments had become most deeply integrated across experiential knowledge, relational infrastructure, and professional identity—integration

that had itself been forged through earlier encounters with disruption. Resilience, on this account, is the product of learning rather than its precondition. It is what sustained iterative engagement with constraint, over time and in community, produces. This finding extends Hoggan and Finnegan's (2023) critique of episodic transformation narratives by locating resilience not in singular moments of rupture and recovery but in the recursive developmental arc through which practitioners come to hold their values—and their limitations—simultaneously. Its implications for learning design are significant: in environments of sustained complexity—whether in sustainable fashion, professional education, organizational change, or any domain where practitioners must enact values under structural pressure—the question is not how to identify resilient people, but how to build the developmental conditions under which resilience is formed. Reflective practice, peer community, iterative constraint navigation, and mentorship that normalizes imperfection are not supplementary support structures. They are the mechanisms through which resilience, understood as a developmental achievement, is actually built.

Extending Experiential Learning: Learning Under Commercial Exposure

Experiential learning theory has provided the primary interpretive lens for this study, and the findings both confirm its generative power and extend it in ways that matter for how the framework is applied in entrepreneurial and professional contexts. Dewey (1938) established that experience becomes educative when subjected to reflective inquiry that reorganizes meaning and informs subsequent action. Kolb (1984, 2014) elaborated this into a cyclical model—concrete experience, reflective observation, abstract conceptualization, active experimentation—that has become foundational to adult learning scholarship. Jarvis (2006) and Illeris (2018) extended the framework further by emphasizing its non-linear, socially situated, and affectively mediated character. What these formulations share, however, is an implicit assumption of sufficient

autonomy for reflection and experimentation to unfold—a learner who can pause, evaluate, and try again without the stakes of financial exposure shaping the pace and scope of each cycle.

The designers in this study did not have that autonomy. All 18 described operating within commercially consequential environments where experimentation carried real financial risk—where a sourcing decision gone wrong was not merely an opportunity for reflection but a potential threat to business viability, and where the time available for deliberate recalibration was compressed by cash flow, production timelines, and market demands that did not pause for learning. In this context, the experiential cycle was not freely traversed; it was structurally mediated. The tempo of reflection was shaped by financial urgency. The scope of experimentation was bounded by minimum order quantities, material availability, and margin constraints. The stakes of each iteration were real in ways that Kolb's model, developed largely in educational and organizational contexts, does not fully theorize.

This study therefore proposes a refinement: in entrepreneurial sustainability contexts, experiential learning operates under conditions of commercial exposure that fundamentally alter its character. Sustainability competence does not develop through protected experimentation—through a classroom sourcing brief or a low-stakes pilot—but through iterative recalibration under financial pressure, where the cost of error is absorbed by the practitioner and where the decision to continue experimenting is itself an act of economic risk-taking. Reflection-in-action, in Schön's (1983) terms, occurs not in the relatively contained uncertainty of professional practice but within systems that impose material consequences on every cycle of inquiry. This reframes experiential learning in entrepreneurial settings as a distinct variant—one characterized by constrained intentionality, compressed reflection cycles, and learning that is inseparable from economic survival. It suggests that existing ELT frameworks may underestimate the degree to

which commercial exposure shapes not only what practitioners learn but whether the conditions for learning remain available at all.

Refining Transformative Learning: Recursive Recalibration over Episodic Rupture

Transformative learning scholarship emphasizes disorienting dilemmas and perspective transformation as catalysts for adult development (Cranton, 2006; Mezirow, 1991; Taylor, 2007). This study demonstrates that in entrepreneurial sustainability contexts, transformation may be better described as recursive recalibration—ethical commitment stabilized through repeated negotiation with constraint rather than through one defining moment of reorientation. Of the 18 participants, 9 described identifiable catalytic dilemmas—material waste shock, ethical burnout, or direct exposure to labor or environmental harm—that functioned as initial triggers for sustainability reorientation. The remaining 9 entered through early value alignment, describing sustainability as an orientation absorbed gradually through familial context, cultural experience, or pedagogical identity rather than through any disorienting rupture. Across both trajectories, however, 15 of 18 emphasized that their sustainability development was nonlinear and ongoing—continuing to evolve through successive cycles of constraint, adaptation, and recalibration long after any initial entry point. This pattern aligns with and extends contemporary critiques calling for more nuanced understandings of transformation within ongoing moral complexity (Hoggan & Finnegan, 2023)—suggesting that the more consequential question is not what initially disrupted designers' assumptions, but what sustained their engagement through the structural pressures that followed.

Integrating Experiential and Participatory Learning

Experiential learning theory and communities of practice theory have largely developed as parallel rather than integrated frameworks. Experiential learning centers the individual learner

moving through cycles of experience, reflection, and experimentation (Dewey, 1938; Kolb, 1984). Communities of practice theory centers the social—learning as participation in shared enterprise, identity formed through engagement with others, knowledge constructed collectively rather than individually internalized (Lave & Wenger, 1991; Wenger, 1998). In practice, however, the designers in this study did not experience these as separate processes. They moved between them continuously and recursively—individual experimentation generated insights that were then tested, validated, or reframed through peer dialogue and mentorship; community participation reinforced identity commitments that in turn shaped the direction and persistence of individual experimentation.

This recursive integration is itself a finding worth theorizing. It suggests that in entrepreneurial sustainability contexts, neither framework is sufficient alone. Experiential learning without participatory reinforcement produced knowledge that remained fragile under structural pressure—several participants described periods of isolated experimentation in which sustainability commitments eroded precisely because there was no relational infrastructure to normalize the friction they encountered. Participatory learning without experiential grounding produced solidarity without competence—shared commitment that could not be translated into the material, financial, and operational decisions that sustainability practice actually requires. What sustained commitment over time was the interaction between the two: individual cycles of reflection and adaptation embedded within communities that provided interpretive scaffolding, validated incremental progress, and recalibrated benchmarks of professional success.

This integration contributes to adult learning scholarship by demonstrating how experiential and participatory processes intersect within entrepreneurial contexts—producing what might be understood as hybrid learning: simultaneously experiential and participatory,

individually enacted yet socially sustained. The practical implication is significant: interventions designed to support sustainability-oriented practitioners cannot focus exclusively on individual skill development or exclusively on community building. They must cultivate both and attend to the relationship between them.

Sustainability as Practice, Not Content: Implications for Professional Education

One of the most consequential contributions of this study to adult education concerns a distinction that sounds simple but has far-reaching implications for curriculum design, pedagogical strategy, and program evaluation: sustainability, as documented by the 18 practitioners in this study, is not a body of content to be learned. It is a practice to be developed. This distinction matters because it changes everything about how sustainability education should be structured, what it should ask of students, and what counts as evidence that it has worked.

Sustainability as content—the dominant model in most design education programs—treats sustainability as a knowledge domain: a set of facts about environmental impact, a catalog of certifiable materials, a list of ethical sourcing criteria. Students are expected to learn this content, demonstrate comprehension, and graduate with awareness. That model is not wrong. But it is profoundly insufficient, because it assumes that knowing what sustainability requires is the primary obstacle to enacting it. The designers in this study had, in most cases, already acquired that knowledge—many described knowing far more about sustainable materials, supply-chain labor conditions, and lifecycle assessment than their formal education had equipped them to act upon. What they lacked was not awareness. It was the capacity to navigate trade-offs under real commercial pressure, to hold their values intact when structural conditions pushed back, and to sustain engagement through successive cycles of disruption without either abandoning their commitments or catastrophizing every constraint.

Sustainability as practice—the model this study supports—treats sustainability as a professional orientation that must be enacted, rehearsed, revised, and consolidated over time through experience, reflection, and community. It is, in Dewey's (1938) terms, a way of thinking and deciding that develops through iterative engagement with real problems under real conditions—not through exposure to ideal cases or abstract principles. This reframe places the locus of sustainability education not in the content of what is taught, but in the conditions under which practitioners are formed. It demands pedagogical designs that put students inside genuine ethical and commercial dilemmas, that rehearse the navigation of imperfection rather than projecting sustainability as an achieved state, and that build the reflective and relational infrastructure through which practice is sustained long after formal instruction ends. For adult educators and program designers, this is the study's most operationally significant contribution: not a new theory of sustainability, but a reorientation of where the educational work actually lies.

Flexibility, Reorganization, Recalibration, and Reinvention: A Framework for Complexity Learning

The designers in this study did not primarily describe learning as mastery—as the progressive acquisition of competence culminating in stability. They described it as ongoing adaptation within conditions that did not stabilize. Supply chains shifted. Markets changed. Regulations evolved. Pandemics arrived. Tariff regimes disrupted sourcing partnerships rebuilt through years of relationship work. In every case, designers who sustained their sustainability commitments through these conditions did so not by holding firm to a fixed approach, but through a recurring cycle of four interrelated capacities: flexibility in the face of changed circumstances, reorganization of practice around what remained possible, recalibration of expectations and benchmarks without abandoning core values, and—in the most acute disruptions—reinvention of the form through which those values were expressed. These four

capacities, taken together, describe not merely how sustainable fashion designers persist. They describe what complexity learning looks like in practice.

This framework has direct implications for adult education far beyond the fashion industry. The conditions these designers navigated—rapidly shifting structural environments, compounding disruptions, commercial pressures that could not be anticipated or controlled, successive crises arriving before prior adaptations had fully stabilized—are not unique to sustainable fashion. They characterize a growing range of professional contexts in which the traditional adult learning expectation of progressive competence development toward stable mastery no longer adequately describes what practitioners actually face. What characterizes complexity learning—and what this study documents—is not mastery but maintained engagement: the capacity to remain in relationship with one's values and one's practice through conditions that make both difficult. Flexibility enables the practitioner to respond rather than freeze when conditions shift. Reorganization enables the practitioner to rebuild practice around what is structurally possible rather than what was previously planned. Recalibration enables the practitioner to sustain commitment without requiring that commitment to look the same as it did before disruption. And reinvention—present in the most acute transitions documented in this study, including MD's pivot from production to education, CR's closure of Wairm as a form of honest reckoning rather than failure, and VO's permanent reorientation of pre-production planning after COVID—enables the practitioner to find new forms for values that the old form could no longer carry.

The adult education field has long theorized what learning looks like in stable or moderately complex environments (Dewey, 1938; Knowles, 1984; Kolb, 1984; Mezirow, 1991). What it has less adequately theorized is what learning looks like when disruption is not episodic

but continuous, when the conditions for reflection keep shifting before reflection can be completed, and when the practitioner's fundamental question is not "how do I learn this?" but "how do I remain a person who learns, and keeps going, when every structural signal suggests that stopping is rational?" That is the question this study's participants were navigating. And the answer—flexibility, reorganization, recalibration, reinvention, sustained through community and anchored in identity—is this study's contribution to that conversation.

Centering Human Learning Within Sustainability Scholarship

Sustainability research in business and fashion studies often emphasizes innovation, circularity models, and structural reform (Bocken et al., 2016; Dobos, 2022; Fletcher & Grose, 2012) without foregrounding the learning processes through which practitioners navigate these conditions. This emphasis on systemic and technical solutions is not misplaced—the ecological and social costs of the global fashion system are structural in origin, rooted in supply chain architectures that concentrate environmental harm in the Global South, labor arrangements that depend on the economic marginalization of garment workers, and market logics that reward speed and volume over durability and equity (Brydges et al., 2020; England, 2024). Decolonial analyses argue persuasively that sustainability discourse can inadvertently reproduce these asymmetries when it focuses narrowly on environmental metrics while leaving labor justice and geopolitical inequity unaddressed. Structural reform remains essential.

And yet structural reform does not happen abstractly. It is enacted—or not—through the decisions of practitioners who have developed the capacity to see these systems clearly, to feel their ethical weight, and to act within and against them under conditions of commercial pressure. This study contributes to sustainability scholarship by demonstrating that the human learning processes underlying sustainable practice are not peripheral to systemic change—they are a

precondition of it. By centering adaptive agency, identity formation, and relational reinforcement, the findings illuminate how sustainability commitments are developed, sustained, and transmitted at the practitioner level in ways that technical models and policy frameworks do not capture. Sustainability entrepreneurship is not solely innovation-driven—it is learning-driven. And if the next generation of fashion practitioners is to be genuinely sensitized to economic disparities, hegemonic production systems, and the human consequences of industry norms, that sensitization cannot be left to chance or to market incentives. It must be cultivated—through education, mentorship, and the kind of reflective professional formation this study has examined.

Facilitators, Barriers, and the Conditions of Persistence

A central research question guiding this study asked what facilitates or impedes designers' ability to maintain sustainability-focused practices over time. The findings provide a detailed and data-grounded answer—one that complicates any simple account of sustainability persistence as primarily a matter of individual commitment or values clarity.

Structural and market-based barriers were universal. All 18 participants described cost and pricing viability as a persistent and defining constraint. Sustainable materials, ethical labor, and transparent supply chains carry costs that conventional pricing models—shaped by decades of fast fashion logic—do not accommodate. Designers consistently described absorbing those costs themselves, narrowing already compressed margins, or finding themselves caught in what several called a no-man's-land: too small to achieve the production scale that would reduce unit costs, too committed to their values to compete on price with conventionally produced alternatives. Nine of 18 participants identified minimum order quantities as a compounding barrier—forcing choices between compromising on materials, overproducing, or forgoing

supplier relationships entirely. Ten of 18 described limited or unstable access to sustainable materials as an ongoing challenge, one that COVID-19 supply chain disruption intensified dramatically and that subsequent tariff volatility has continued to aggravate. Eight of 18 identified consumer willingness to pay as a significant constraint, though several reframed this not as a reason to abandon sustainability but as a design challenge—the burden of making work good enough that ethical commitment became invisible to price-sensitive buyers.

These barriers did not operate independently. Participants consistently described how constraints compounded: scale misalignment increased material costs, which intensified pricing tension, which narrowed the margin available to absorb sourcing premiums, which made ethical commitments harder to sustain without revenue growth that itself risked compromising those commitments. Five of 18 identified institutional and policy constraints—absent regulatory scaffolding, curricular inertia in design education, and the absence of scaled certification pathways suited to micro-enterprises—as further limiting the structural environment. The greenwashing problem added a communicative layer: the dilution of sustainability language across the broader marketplace had eroded the credibility of the very terms designers needed to differentiate their work, forcing them to communicate around sustainability rather than through it.

Yet persistence was sustained—and the facilitators that enabled it are as instructive as the barriers that threatened it. Peer collaboration and mentorship were universally present across all 18 participants, underscoring the fundamentally relational character of sustainability practice. No participant described sustaining their commitment in isolation. Nine of 18 had access to industry advisors who could bridge technical knowledge and institutional fluency; 8 drew on artisan or community networks as practical resources and sources of relational accountability; 7 described

access to aligned market channels as enabling sustainability at a viable commercial scale. Four participants described community-supported practice as a deliberate structural strategy—trading market scale for relational stability and locating the conditions of sustainability not in favorable market positions but in the depth and accountability of relationships with makers, clients, and fellow practitioners.

Internal orientations proved equally decisive. All 18 participants described mindset reframing—a rejection of perfectionism in favor of iterative progress—as essential to sustained engagement. Seventeen of 18 demonstrated flexibility and resourcefulness as adaptive capacities, treating structural constraint as a design problem rather than a disqualifying condition. Ten of 18 referenced emotional or spiritual practices as supporting long-term resilience, ranging from reflective journaling to faith-based grounding.

As noted in the discussion of entry trajectories, the absence of demographic predictors of persistence held consistently across all 18 interview participants and the broader CIQ data—a finding whose implications for education and mentorship are addressed directly in the recommendations that follow.

Implications and Recommendations

The following recommendations derive directly from the findings of this study. Each is grounded in specific patterns that emerged across the 18 participants and is organized by audience. Each recommendation is stated explicitly and followed by its evidentiary basis and, where applicable, guidance on how to put it into practice.

Recommendations for Designers

Across participants, sustainability persistence was sustained not by adherence to fixed standards but by adaptive professional judgment exercised over time. The recommendations

below reflect the practices that distinguished designers who sustained commitment under structural constraint from those who struggled to maintain it.

Approach sustainability as a developmental orientation, not a binary achievement. Sixteen of 18 participants described sustainability not as a state they had reached but as a process of continuous refinement shaped by new information, changing materials, and shifting market realities. Framing sustainability as an evolving practice—rather than a condition that must be fully achieved at once—reduces the risk of disengagement when trade-offs arise and strengthens long-term resilience.

Institutionalize structured reflection into operational routines. Designers' learning was often informal and reactive—a pattern that held across the majority of participants regardless of career stage or professional role. Practices such as post-production review, documentation of material experimentation, and periodic reassessment of sourcing decisions can transform isolated experiences into cumulative professional learning—enabling designers to identify patterns and refine strategies over time.

Develop financial literacy specific to sustainability trade-offs. Economic constraint was the most consistently reported challenge across all 18 participants. In practice, this means building a cost modeling habit into sourcing decisions: before committing to a material or production partner, mapping full cost implications across unit cost, minimum order quantity, lead time, and price-per-wear for the end consumer. It means understanding break-even points at different production volumes so that decisions about scale are made with clarity about what is being traded rather than in response to financial panic. Skills in margin modeling, cost comparison across materials, and scenario planning for small-batch production enable more

informed compromises when ideal solutions are financially untenable. Financial clarity does not eliminate constraint, but it increases agency within it.

Cultivate sustained supplier relationships. Ten of 18 participants identified limited or unstable access to sustainable materials as an ongoing challenge—and those who had built long-term supplier partnerships consistently described greater flexibility, more candid information exchange, and more creative problem-solving when constraints arose. Designers who treated sourcing as an ongoing partnership rather than a transactional exchange described greater flexibility and information access over time. Open communication regarding sustainability goals and long-term collaboration can increase supply-chain transparency and support incremental improvements.

Explicitly articulate and prioritize non-negotiables. Designers who had clearly defined their ethical boundaries—materials they would not use, labor practices they would not accept, production methods incompatible with their values—appeared better able to navigate sourcing and pricing dilemmas without experiencing constant ethical uncertainty. This pattern was evident across multiple participant types but was particularly pronounced among the 14 of 18 who described identity consolidation as a turning point in their sustainability practice: once sustainability became constitutive of professional identity rather than aspirational, certain boundaries became non-negotiable by definition. Articulating and prioritizing non-negotiables in advance provides a stable framework within which difficult decisions can be made—reducing the cognitive and ethical load of recurring trade-offs.

Develop explicit trade-off decision frameworks. No available option consistently satisfied environmental, ethical, and financial considerations simultaneously—a tension reported by all 18 participants in some form. Designers who articulated in advance how they would weigh

competing priorities—environmental impact, labor conditions, durability, transparency—reported reduced decision fatigue and greater coherence across sustainability choices. All 18 demonstrated mindset reframing as a universal adaptive capacity, and those who had made their evaluative hierarchy explicit appeared better positioned to apply that reframing consistently rather than case by case.

Engage actively in peer learning networks. Sustainability-oriented practice was rarely developed in isolation—and the data suggest that isolation is not merely uncomfortable but developmentally costly. Peer collaboration was universally present across all 18 participants as a facilitating condition, yet several described finding meaningful peer community only after years of isolated struggle. In practice, active engagement means more than joining a professional association. It means identifying two or three peers at a similar career stage navigating comparable structural challenges and creating a regular structure—monthly calls, shared documents, occasional site visits—for honest exchange about what is working and what is not. It means seeking out spaces where incremental progress is normalized rather than measured against an idealized standard. Industry associations, informal designer collectives, sustainability-focused trade organizations, and cross-disciplinary collaborations all create such spaces—and for the 4 participants who described deliberately constructing community-supported practice as a structural strategy, that investment in relational infrastructure proved as consequential as any operational decision they made.

Communicate sustainability with precision rather than aspiration. Several participants avoided public sustainability messaging out of concern for accusations of greenwashing. Articulating what is currently being done, acknowledging areas still in development, and

avoiding sweeping claims strengthens credibility with consumers and aligns communication with the developmental nature of sustainability practice.

Consumer indifference. Reframe sustainability not as a message to deliver to consumers but as a quality standard to embed in the work itself. HH articulated this orientation: "I don't actually think people, the average consumer, care. So it's on me to care. And then it's also on me to make it good enough that it doesn't matter that they don't care." SBr described a parallel logic: building work around things that mass-volume competitors "couldn't copy if they tried." For designers operating in a landscape where sustainability language has been diluted, the most durable competitive position may not be a better sustainability pitch. It may be work whose quality makes the pitch unnecessary.

Recommendations for Educators

If sustainability competence develops through iterative engagement under constraint rather than abstract exposure alone, educational environments must move beyond informational transmission toward structured experiential design. The findings of this study suggest that most participants entered professional practice underprepared—not in terms of aesthetic or technical formation, but in terms of the practical, financial, and ethical judgment that sustainability-oriented work actually requires. Several described formal education as having introduced sustainability as concept without equipping them to enact it as practice. The gap between knowing about sustainability and knowing how to practice it under structural constraint is not a knowledge gap—it is a pedagogical one.

Embed authentic constraint in sustainability curricula. Educational programs in fashion and design should incorporate project-based learning grounded in real supply-chain complexity, simulated budget constraints, and iterative prototyping cycles. This means assigning students live

sourcing briefs with actual minimum order quantities and real material costs—not hypothetical scenarios—so that the friction of ethical sourcing becomes a pedagogical condition rather than a disclaimer. Students should be required to work through the full cost implications of a sustainably sourced garment: material cost, labor, overhead, and the pricing model that results—and then to grapple honestly with what that price point requires of the business model, the customer, and the designer's own compromises. When the numbers don't work on the first pass, that is not a failed assignment; it is the beginning of the learning.

Curricula should embed costing as a design competency, not a business school concern. As the findings of this study make clear, ethical costing and workflow redesign were universal skills among the 18 participants—not because they were taught them, but because professional survival required them to develop these capacities independently, often through costly trial and error. Design programs that treat costing as peripheral to creative practice are producing graduates who will spend the first years of their careers learning what they should have been taught. Integrating material cost modeling, lifecycle analysis, and production planning into studio courses—not as separate business modules but as constitutive elements of design decision-making—would meaningfully close this gap.

Curricula should also address the communicative dimension of sustainability practice explicitly. Several participants described learning only through professional embarrassment how to talk about their sustainability commitments without overpromising, how to respond to greenwashing accusations, and how to communicate ethical value to price-sensitive consumers. These are teachable competencies. Courses in sustainability communication, brand transparency, and stakeholder engagement—grounded in real cases of both effective and misleading sustainability messaging—would reduce a learning curve that too many designers currently

navigate alone and late. Students should practice articulating what they are doing, why it costs what it costs, and what they are still working toward—developing the language of honest, developmental sustainability communication before they need it in front of a buyer or a consumer.

The systemic and global dimensions of fashion's sustainability challenge deserve sustained and serious curricular attention. Participants in this study described entering professional practice with an awareness of environmental impact that had not been adequately connected to labor justice, geopolitical inequity, or the structural logic of global supply chains. Several described a process of gradual, painful recognition—arriving at ethical clarity about labor conditions, decolonial critiques of sustainability discourse, and the human geography of fashion production only through direct exposure rather than formal preparation. Curricula that address where garments are made, by whom, under what conditions, and within what regulatory and geopolitical environments sensitize emerging designers to the full ethical terrain they are entering. Case studies that examine the intersection of environmental and social sustainability—the relationship between low-cost production and labor precarity, between fast fashion and the communities absorbing its waste, between sustainability certification and the power asymmetries embedded in audit systems—build the kind of systemic awareness that this study found to be foundational to sustained ethical commitment. This is not supplementary content. It is foundational.

Finally, sustainability education should reconsider how it assesses learning. If what is being cultivated is adaptive judgment under ambiguity rather than procedural compliance, then assessments that reward students for identifying the correct sustainable choice are measuring the wrong thing. Assessments should instead evaluate the quality of students' reasoning through

trade-offs—how clearly they articulate their evaluative hierarchy, how honestly they account for the compromises they made, and how well they demonstrate the capacity to recalibrate when ideal solutions are unavailable. Because sustainability persistence was not predicted by demographic variables but by reflective engagement with disruption, pedagogies and assessments alike should cultivate evaluative judgment under ambiguity. A student who produces a flawed sustainable sourcing decision but reasons through it with clarity and ethical honesty is better prepared for professional practice than one who identifies the right answer without understanding why.

Disposable consumption culture recommendation. Address the infrastructural conditioning of disposable consumption culture in fashion education and industry communication, not only to strengthen sustainability literacy among designers but also to decouple responsible fashion from the assumption that it must remain a premium or elite practice. RP described a generational shift: “before fast fashion was even a term, it was like, what’s for the long haul — I’ve always been a staple-minded person, make something nice once, not replacing it ten times.” SBr observed that consumers had been structurally conditioned to buy “with the intent to wear once and throw away.” These are not attitudes that consumer education campaigns can easily reverse — they are the product of decades of industry messaging, pricing structures, and retail cycles that have normalized disposability. Fashion educators are positioned to interrupt this conditioning: curricula that foreground price-per-wear over purchase price, that require students to design for longevity rather than novelty, and that make full lifecycle cost visible as a design constraint would begin to build the professional culture from which different consumer norms can emerge. Industry communications that lead with durability, repairability,

and long-term value — rather than sustainability as an ethical premium — may reach price-sensitive buyers that sustainability messaging does not.'

Recommendations for Mentors and Coaches

Mentorship in this study functioned not only as skill transmission but as interpretive scaffolding—and it was universally present. Mentorship was the one facilitating condition present without exception across all 18 participants—a finding that reframes it not as supplementary support but as a structural requirement of sustainability persistence.

Foreground strategic flexibility rather than idealized standards. Designers sustained commitment when supported in recalibrating rather than abandoning their goals. Coaching practices that normalize iterative adaptation, clarify non-negotiables, and contextualize compromise within long-term orientation strengthen persistence. Mentorship should cultivate ecological agency—supporting designers in identifying zones of maneuverability within structural conditions rather than framing constraint as failure.

Beyond orientation, there are practical questions of how mentorship is cultivated, structured, and sustained. Formal mentorship programs within professional associations, trade organizations, and design schools should prioritize matching emerging designers with mentors who have navigated sustainability within similar structural contexts—not only those who have achieved recognized sustainability credentials, but those who have persisted through the commercial friction that credentials alone do not prepare practitioners for. A founder who has survived the minimum order quantity trap, renegotiated supplier relationships under financial pressure, and maintained ethical commitments through a business contraction has knowledge that no certification program transmits.

Mentors benefit from the relationship as well—a dimension worth making explicit in how mentorship programs are designed and communicated. Several participants described the act of articulating their own decision-making processes, in dialogue with less experienced practitioners, as clarifying their own thinking and reinforcing their own commitments. Teaching reinforced personal competence as much as it transmitted knowledge to others. Mentorship recruitment efforts that frame the relationship as reciprocal—as an opportunity for experienced practitioners to consolidate and articulate what they have learned—may attract more engaged mentors than those framed purely as service or obligation.

Peer mentorship and cohort-based learning deserve particular attention. Artisan and community networks provided meaningful support for 8 of 18 participants, and the focus group sessions in this study demonstrated how collective dialogue generates insight that individual reflection does not. Programs that create structured peer learning cohorts—small groups of designers at similar career stages, meeting regularly around shared sustainability challenges—would formalize what many participants found only informally and often late in their careers.

Recommendations for Industry and Institutional Stakeholders

The findings of this study should not be interpreted to mean that sustainability belongs only to affluent consumers or premium market segments. Rather, they show how current institutional arrangements—minimum order requirements, pricing structures, weak regulatory scaffolding, greenwashed language, and uneven access to sustainability education—often make responsible practice more difficult to produce, communicate, and afford than it should be. The task, therefore, is not to accept exclusivity as intrinsic to sustainability, but to redesign the structural conditions that presently make it appear so. Structural conditions—minimum order quantities, pricing pressures, certification complexity, supply-chain opacity—continue to delimit

action regardless of individual learning and community reinforcement. Without institutional alignment, individual adaptive agency remains bounded.

Create scaled institutional infrastructure for small-enterprise sustainability. Suppliers, trade organizations, and regulatory bodies should consider how policies and infrastructures can expand zones of maneuverability for small-scale designers. Greater transparency standards, certification models scaled for micro-enterprises, and collaborative sourcing networks could reduce the friction that currently necessitates constant recalibration. Institutional systems that recognize sustainability as developmental practice—not only compliance—may create environments where experiential learning translates more readily into durable transformation. The tariff volatility experienced by several participants in the final phase of this study underscores the urgency of institutional scaffolding that insulates small sustainability-oriented enterprises from macroeconomic shocks that disproportionately threaten their viability.

Collective purchasing recommendation. One specific form deserves explicit attention: collective purchasing. Nine of eighteen participants identified minimum order quantities as a structural barrier. SS described the tension: “You want to buy less but better, and the whole system is designed for the opposite.” HH described the practical consequence: supplier minimums of fifty kilos per colorway that “force people out of the arena.” These are not individual negotiating failures—they are structural barriers that collective purchasing arrangements are designed to address. Professional associations and designer networks are well positioned to facilitate arrangements in which smaller designers pool volume commitments to reach thresholds inaccessible to each alone. This has not been formalized in sustainable fashion. If the barrier is minimum order quantity, the intervention is organized scale.

Standardized sustainability language. Develop shared, standardized sustainability terminology for the field—and equip designers with alternative framing strategies for the period before such standards exist. The greenwashing problem documented in this study was a systemic communicative failure that penalized designers with deep structural commitments by making their work indistinguishable, in language, from surface-level positioning. CR described the practical consequence: starting a market pitch with "the sustainable angle" and watching people "just glaze over," then discovering that leading with "Made in Scotland" generated genuine interest—an illustration of how greenwashing saturation had forced designers to route around sustainability terminology rather than rely on it. AK observed that sustainability had been "used in so many different ways in which it's been honored and dishonored" that it functioned more as liability than asset for those whose commitments were substantive.

This finding has two implications. At the industry level, trade organizations, certification bodies, and professional associations are positioned to develop a shared lexicon that distinguishes depth of commitment from rhetorical adoption—not a regulatory standard, but a professional norm that gives designers language for making their practice legible without overclaiming. At the designer level, programs and mentors should teach practitioners to lead with provenance, material specificity, and craft particularity—"hand-embroidered by artisans in Oaxaca," "100% traceable merino," "Made in Scotland"—rather than relying on a term whose communicative value has been eroded by misuse. Routing around degraded language is not a failure of sustainability communication; it is currently its most effective form.'

Revisiting Assumptions

The original assumptions guiding this inquiry were not simply confirmed—they were tested, refined, and in some cases complicated by what the findings revealed. Revisiting them

here offers an honest accounting of where the study's framing held, where it proved overly tidy, and where the data pushed back in productive ways.

The study initially assumed that sustainability-oriented practice could be meaningfully examined through the lived experiences of independent designers and that participants' accounts would illuminate broader patterns of learning and identity development. This assumption held. The richness of participant narratives—spanning material experimentation, supplier conflict, financial crisis, and identity negotiation—provided precisely the kind of developmental texture that warranted interpretive analysis. Cross-case comparison and focus group dialogue produced convergent patterns that transcended individual narratives.

The assumption that adult learning frameworks would provide appropriate interpretive lenses held more conditionally. Experiential learning theory proved highly generative, particularly when applied to material engagement and iterative recalibration under constraint. Transformative learning theory, however, required significant refinement. The original assumption implied that disorienting dilemmas and perspective transformation would be identifiable moments in designers' narratives. In practice, transformation appeared less as episodic rupture and more as gradual consolidation—distributed across years of practice rather than concentrated in identifiable incidents. The framework was not wrong, but it required rethinking what transformation looks like in entrepreneurial contexts where moral complexity is ongoing rather than episodic.

The assumption that sustainability functions as an orienting ethical commitment rather than a singular operational metric was largely confirmed—but with an important qualification. Several participants described sustainability as having shifted in its meaning over time: what began as a primarily environmental commitment evolved to incorporate labor justice, community

accountability, and regenerative practice. The study's assumption of relative conceptual stability across participants understated the dynamic, contested nature of sustainability as a lived ethical orientation. This proved not to be a problem so much as a productive complication—it deepened the analysis of identity consolidation and reinforced the case for recursive recalibration as the dominant developmental pattern.

Finally, the assumption that learning is embedded within structural conditions rather than separable from them was not only confirmed but emerged as the study's most generative interpretive axis. The structural conditions designers navigated—minimum order quantities, wholesale pricing pressures, certification barriers, pandemic disruption, tariff volatility—were not merely context; they were constitutive of the learning itself. In hindsight, this assumption could have been stated more boldly in the original framing.

One finding emerged that was not anticipated in the original assumptions and warrants explicit acknowledgment here. The study assumed, reasonably, that variables such as years of professional experience, prior industry role, and formal education level would produce meaningful variation in sustainability persistence—that designers who had spent more years in the field, or who had navigated large corporate environments before independent practice, would demonstrate different and more durable commitments, or conversely that younger designers less conditioned by conventional industry logics would prove more idealistic and therefore more persistent. Neither pattern held. Demographic variables did not predict sustainability persistence in any consistent direction across the 18 participants, a finding reinforced by the broader CIQ data from 32 respondents. What differentiated those who sustained commitment from those who struggled was not who they were professionally or biographically, but how they interpreted and responded to disruption—the quality of their reflexive engagement with contradiction, the

strength of their relational infrastructure, and the degree to which sustainability had been integrated into professional identity rather than held as an external aspiration. This was, in retrospect, the study's most practically significant finding for how sustainability education and professional development should be designed—and it was one the original framing did not explicitly anticipate. It suggests that interventions targeting sustainability persistence should focus less on selecting for or developing particular professional profiles and more on cultivating the reflective capacities, relational infrastructure, and identity formation processes that the data consistently identified as the actual mechanisms of persistence. A second finding warrants acknowledgment as genuinely unanticipated. YB's description of war in Ukraine as a greater disruptor of sustainable fashion practice than COVID-19—reshaping production workforces, unlocking international funding mechanisms oriented toward Ukrainian sustainable producers, and reorganizing designer networks around necessity—insists that supply-chain instability must be understood as geopolitically situated. This points toward a dimension of sustainability research that remains undertheorized: the intersection of geopolitical disruption and the structural conditions of ethical practice.

Limitations Arising from the Findings

Chapter 3 addressed the methodological limitations inherent to the study's qualitative, purposive design—including sample boundedness, transferability constraints, and the risks of self-reported narrative data. The limitations addressed here are distinct: they arise not from methodological design but from what the findings themselves revealed, complicated, or left unresolved.

First, the findings illuminate sustainability persistence but cannot account for its absence. Because participants were selected on the basis of sustained engagement over at least five years,

the study has no access to the experiences of designers who attempted sustainability-oriented practice and abandoned it. The factors that distinguish persistence from exit remain largely inferential. The developmental trajectory described in this chapter may describe a pathway that only a subset of practitioners successfully navigate.

Second, the study's interpretive frame centers individual and collective learning but does not fully account for the material and market conditions that make sustainability more or less structurally available. The findings suggest that agency is ecological and bounded—but the analysis cannot specify the conditions under which structural constraint becomes prohibitive rather than generative. Future research examining designers who operate at different scale thresholds, or within different national regulatory environments, may be better positioned to map these boundaries.

Third, and most directly, the study's geographic and positional boundaries reproduce a well-documented asymmetry in sustainability discourse: knowledge about sustainable fashion is generated primarily in Western contexts, by Western-trained researchers, about Western-market designers, and it circulates primarily within Western academic institutions. This study is no exception. The designers whose learning and persistence this dissertation documents are predominantly located in North America and Europe, operating in markets with relatively robust consumer awareness of sustainability, some degree of regulatory scaffolding, and access to institutional networks that support sustainability-oriented practice. The communities in South Asia, Southeast Asia, and Sub-Saharan Africa where most of the world's garments are actually produced—where the ecological and labor consequences of fashion's systemic logic are most acutely concentrated—are absent from this dataset not because their sustainability practice is less important, but because the study's sampling criteria, recruitment channels, and language

requirements structurally excluded them. Decolonial analyses of sustainability scholarship (England, 2024) argue that this pattern of knowledge production is itself a form of asymmetry: a field that generates its best accounts of sustainability from the vantage point of those with the most structural privilege to practice it, while remaining largely silent about the perspectives of those who bear the greatest cost of its absence. This study cannot resolve that asymmetry. But it can name it honestly as a limitation that future research—designed from the outset to center practitioner voices in major production regions—is well positioned to address.

Fourth, the historical period of the study introduced compounding confounds. The COVID-19 pandemic, which was an explicit research focus, and the subsequent tariff volatility, which was not, together produced a research context of unusual and sustained disruption. Some findings—particularly around crisis-induced recalibration and the compression of iterative learning cycles—may reflect conditions specific to this moment of successive structural stress rather than features of sustainability practice in more stable periods.

Finally, the study's theoretical integration, while generative, invites further examination. The recursive relationship between experiential learning, communities of practice, and identity formation proposed in the synthesis section is interpretively compelling but was not designed as a formal theoretical model. It should also be noted that while the facilitators and barriers research question is addressed explicitly in a dedicated section of this chapter—mapping structural constraints, relational supports, and internal adaptive orientations against participant data—the interaction effects among these conditions remain undertheorized. The data reveal, for instance, that relational infrastructure and identity consolidation together predicted persistence more robustly than either did alone, but the precise conditions under which one dimension compensates for weakness in another remain unclear. Testing this integration systematically—

across different professional domains, scales of enterprise, and cultural contexts—would be required before it could be treated as a validated framework rather than a grounded interpretive proposal. The most consequential direction for future research, however, is geographic. This study documents sustainability-oriented practice in Western entrepreneurial and educational contexts. A parallel study centered on sustainability-oriented practitioners in South Asia, Southeast Asia, or Sub-Saharan Africa—regions where fashion production is concentrated and where the ecological and labor stakes of the conventional system are highest—would not simply extend the findings geographically. It would interrogate the foundational assumptions of this study: whether the learning mechanisms, relational infrastructure, and identity processes documented here operate similarly in contexts shaped by different regulatory environments, labor dynamics, and cultural relationships to craft and sustainability. That research is needed—and it would benefit from methodological designs that position researchers and participants from within those regions as co-producers of knowledge, rather than as subjects of inquiry framed from the outside.

Concluding Reflection

This inquiry has its roots in 2019, when the proposal was first developed around three research questions examining how independent fashion designers enter, sustain, and develop competence in sustainability-oriented practice. The study was designed, approved, and set in motion before anyone could have anticipated what was coming. When COVID-19 arrived in early 2020, it did not merely disrupt the research timeline—it transformed the phenomenon under study in real time. Designers who had been interviewed or were about to be interviewed were suddenly navigating supply-chain collapse, canceled orders, liquidity crises, and fundamental questions about whether their businesses would survive. It became clear that to

proceed without acknowledging what participants were living through would be to conduct a study of sustainability practice while ignoring the most significant structural stress test the industry had faced in decades. The study's fourth research question—examining how sustainability-focused designers reacted, responded, and adapted to COVID-19 and its ongoing impacts—became not merely a design element but a lived methodological reality, as participants were navigating pandemic consequences in real time throughout data collection. The study then unfolded across nearly six years, from initial proposal development in 2019 through the final conversations in September 2025, absorbing not only the pandemic but its aftermath: supply-chain instability, shifting consumer expectations, new tariff regimes, and for some participants the closure of businesses that had survived COVID-19 only to encounter the next wave of structural pressure. What began as a study of sustainability persistence among designers who had already sustained five or more years of ongoing professional practice at the time of selection became, in some ways, a study of persistence itself under continuing structural pressure.

What emerged across cases was not uniform alignment or ideal structural support, but persistence through recalibration. Designers sustained commitments by integrating sustainability into professional identity, refining skill under pressure, and negotiating constraint rather than denying it. Sustainability in fashion is less a fixed achievement and more a lived developmental trajectory—enacted through iterative learning, participatory reinforcement, and adaptive agency within systems that both enable and resist change.

The stakes of that persistence extend well beyond individual careers or business models. The global fashion industry continues to generate an estimated 8% to 10% of annual carbon emissions—more than international flights and maritime shipping combined—deplete freshwater resources at scale, and produce textile waste at volumes no current recycling infrastructure can

absorb (Ellen MacArthur Foundation, 2024; Niinimäki et al., 2020; UNEP, 2023). Its supply chains remain concentrated in regions where labor protections are weakest and environmental enforcement is most limited—where the communities bearing the greatest ecological burden retain the least power to negotiate its terms (Brydges et al., 2020; England, 2024). Garment workers, overwhelmingly women in the Global South, continue to absorb the human cost of an industry whose pricing logic depends on their economic marginalization (Brydges et al., 2020). These are not abstract statistics. They are the conditions that brought many of the designers in this study into sustainability-oriented practice in the first place—the waste they witnessed, the labor they could not unsee, the systems they decided they could not in good conscience reproduce. Understanding how those commitments are formed, sustained, and transmitted is not a peripheral academic concern. It is central to any serious account of how the fashion industry might actually change.

Technological innovation, regulatory reform, and circular business models are necessary—but they are not sufficient. Systemic transformation depends, ultimately, on practitioners who have developed the capacity to see these systems clearly, to feel their ethical weight, and to act within and against them under conditions of sustained commercial pressure. That capacity is not innate. It is learned—through disruption, reflection, community, and the kind of iterative professional formation this dissertation has examined. By situating sustainability-oriented fashion practice within adult learning theory, this study offers not merely a framework for understanding how commitments persist, but an argument for why cultivating that persistence—through education, mentorship, and institutional support—is one of the most consequential investments the industry and its educators can make. The designers in this study

did not solve the problem. But they held the line. And understanding how they did that, and what it cost them, and what made it possible, is where any serious effort at change must begin.

Final Researcher Reflections

Research of this kind does not leave its author unchanged. Over the course of this study, close to 60 individuals gave generously of their time and experience. Fifty-eight completed the initial survey; 32 contributed critical incident questionnaires; 18 sat for in-depth interviews. Seven of those 18 then joined focus group conversations spanning five time zones, and five returned again for follow-up interviews after an administration change that could have ended the project entirely. From first contact in October 2023 to the final conversation in September 2025, participants stayed with this research far longer than they were asked to—even as conditions around them grew harder. Several had survived COVID-19 only to face the compounding pressures of imposed tariffs and an increasingly hostile market. Some did not make it to the end; businesses that were running when this study began had closed by the time it concluded. That some of them continued to show up—to reflect, to share, to contribute—under those circumstances makes their participation all the more remarkable. I am genuinely and deeply grateful to each of them. They gave time they did not have and offered honesty they did not owe. Several described the interview itself as the first time they had been asked to reflect on their sustainability journey from beginning to present—to trace, out loud, the arc of choices that had made them who they are professionally. That trust is not something I take lightly, and I hope this work does justice to what they shared.

What I did not expect was how much their stories would change the way I see the fashion industry—and my own relationship to it. I came into this research holding a fairly structural view of sustainability: the problem was systemic, the solutions were regulatory and technological, and

individual practitioners were largely constrained actors within a system not of their making. That view is not wrong. But it is incomplete. What these 18 designers showed me is that the space between structural constraint and personal conviction is where the most interesting and consequential work happens. It is in that space—not in ideal conditions, but in the friction between aspiration and feasibility—that sustainability is actually enacted, learned, and sometimes lost. And it is precisely because that space is so demanding—financially, relationally, ethically—that the recommendations emerging from this study matter as much as they do. Designers need frameworks for navigating trade-offs before crises force the question. Educators need to stop treating sustainability as conceptual content and start treating it as a professional practice that must be rehearsed under real constraint. Mentors need to model the negotiation of imperfection rather than the achievement of purity. And institutions need to build the scaffolding that individual conviction alone cannot sustain. The findings drove these recommendations. The participants' experiences made them urgent.

I was also surprised by what did not matter. I came in expecting that experience would be a predictor—that designers who had spent more years in the industry, or who had worked inside large corporations before striking out independently, would demonstrate different and more durable sustainability commitments. It did not work that way. What distinguished those who persisted was not résumé depth or demographic profile; it was something closer to reflexive character—the willingness to sit with contradiction, to treat constraint as information rather than verdict, and to remain in relationship with both their values and their limitations simultaneously. That is not a quality that comes automatically with years of experience. It is something that must be cultivated, and that cultivation is the work this research wants to support.

One dimension of this research that I find myself returning to is the inadvertent message it might carry about who sustainability is for. The designers in this study operated predominantly in boutique, independent, and craft-based markets—serving consumers who could, however reluctantly, absorb the price premium that genuine sustainable practice requires. Their persistence is real, their commitments are substantive, and their stories are worth telling. But I am aware that a study of sustainability persistence among those who were able to sustained five or more years of ongoing professional practice is, structurally, a study of those who had enough access—to capital, networks, markets, and institutional support—to reach that threshold. The designers who attempted sustainability-oriented practice and could not sustain it financially are not in this dataset. The consumers for whom sustainable fashion remains categorically inaccessible are not in this dataset. And the garment workers in the Global South who absorb the human cost of the conventional fashion system—whose labor makes fast fashion's price points possible, and whose communities bear the greatest ecological burden of an industry they did not design—are present in this study only as a structural backdrop, not as voices. That is a real limitation, and it would be dishonest to close without naming it plainly. Sustainability-oriented fashion practice, as this study documents it, does not yet function as a democratizing force. It remains, for now, a practice located at the margin—economically, geographically, and institutionally. Changing that requires systemic intervention that goes well beyond what individual designers, however committed, can accomplish. It requires consumer education that addresses not just awareness but access. It requires policy and regulatory frameworks that create accountability for the full ecological and labor costs of production. It requires curricula that equip emerging designers to advocate for structural change, not merely to navigate it. And it requires a decolonial reckoning with the geography of fashion's environmental impact—

recognizing that the communities with the least power in the global fashion system bear the most of its consequences, and that sustainability discourse that does not address that asymmetry is incomplete. This study does not solve those problems. But it is grounded in the conviction that understanding how sustainability commitments are formed and sustained at the practitioner level is a necessary—if not sufficient—part of building the conditions under which a more equitable and genuinely sustainable fashion system becomes possible.

Going forward, I find myself thinking differently about what sustainability education should prioritize. The designers in this study did not primarily need more information about sustainable materials or certification pathways—most were already more knowledgeable about these than their formal training had prepared them to be. What they needed—and what many found only through years of trial, error, and community—was a framework for navigating trade-offs, the language to communicate ethical commitment without overpromising, and the relational infrastructure to sustain resolve when structural conditions pushed back. These are learnable things. They can be taught, mentored, and designed into professional communities. My hope for this research is that it contributes, even modestly, to making that learning more accessible earlier in designers' careers—and to building the institutional and relational scaffolding that sustainability-oriented practitioners need but too rarely find.

The fashion system is vast, entrenched, and difficult to change from within. But the designers who participated in this study are changing it—incrementally, imperfectly, persistently. Their work deserves to be seen for what it is: not a solution to a systemic problem, but a serious, sustained engagement with it. I am a better scholar, and a more honest thinker about sustainability, for having had the chance to learn from them.

References

Aakko, M., & Koskennurmi-Sivonen, R. (2013). Designing sustainable fashion: Possibilities and challenges. *Nordic Textile Journal, 1*, 9–21.

Argyris, C., & Schön, D. A. (1974). *Theory in practice: Increasing professional effectiveness.* Jossey-Bass.

Bain, M. (2018). *The global fashion industry: Statistics and facts*. Statista.

Belkhir, L. (2015). Embedding sustainability in education through experiential learning using innovation and entrepreneurship. *Journal of Cleaner Production, 106*, 616–623.

Biesta, G., & Tedder, M. (2007). Agency and learning in the lifecourse: Towards an ecological perspective. *Studies in the Education of Adults, 39*(2), 132–149.

Black, S. (2013). *The sustainable fashion handbook*. Thames & Hudson.

Blumer, H. (1954). What is wrong with social theory? *American Sociological Review, 18*, 3–10. https://doi.org/10.2307/2088165

Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2016). Towards a sufficiency-driven business model: Experiences and opportunities. *Environmental Innovation and Societal Transitions, 18*, 41–61. https://doi.org/10.1016/j.eist.2015.07.010

Boud, D. (1993). Experience as the base for learning. *Higher Education Research and Development, 12*(1), 33–44.

Boud, D. (2015). Feedback: Ensuring a positive experience for learners. In D. Boud & E. Molloy (Eds.), *Feedback in higher and professional education* (pp. 1–15). Routledge.

Boud, D., Keogh, R., & Walker, D. (1985). *Reflection: Turning experience into learning*. Kogan Page.

Brookfield, S. D. (1995). *Becoming a critically reflective teacher*. Jossey-Bass.

Brundiers, K., Wiek, A., & Redman, C. L. (2010). Real-world learning opportunities in sustainability: From classroom into the real world. *International Journal of Sustainability in Higher Education, 11*(4), 308–324.

Brydges, T., Retamal, M., Matthews, D., & Hanlon, M. (2020). Will COVID-19 support the transition to a more sustainable fashion industry? *Sustainability: Science, Practice and Policy, 16*(1), 298–308.

Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Sage.

Climate Works Foundation & Quantis. (2018). *Measuring fashion: Environmental impact of the global apparel and footwear industries study*. Quantis.

Cline, E. L. (2012). *Overdressed: The shockingly high cost of cheap fashion*. Portfolio/Penguin.

Cotton, B. (2018). Sustainable supply chains in the fashion industry. *Journal of Cleaner Production, 195,* 1047–1059.

Cranton, P. (2006). *Understanding and promoting transformative learning: A guide for educators of adults* (2nd ed.). Jossey-Bass.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Sage.

Da Giau, A., Fasolin, M., Leo, S., & Vinelli, A. (2016). Sustainability-oriented innovation in fashion. *Business Strategy and the Environment, 25*(8), 576–589.

Da Giau, A., Macchion, L., Caniato, F., Caridi, M., Danese, P., Rinaldi, R., & Vinelli, A. (2016). Sustainability practices and web-based communication: An analysis of the Italian fashion industry. *Journal of Fashion Marketing and Management, 20*(1), 72–88.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2013a). *Collecting and interpreting qualitative materials* (4th ed.). Sage.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2013b). *Strategies of qualitative inquiry* (4th ed.). Sage.

Dewey, J. (1938). *Experience and education*. Macmillan.

Dirkx, J. M. (1998). Transformative learning theory in the practice of adult education: An overview. *PAACE Journal of Lifelong Learning, 7*, 1–14.

Dobos, E. (2022). Changing landscapes but ingrained power relations? *European Review of Economic History, 26*(4), 1123–1146.

Dunn, M. (2024). *From data to design: Accurate size research and the vital importance of realistic consumer sizing* [Slide presentation]. Fashion Institute of Technology.

Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business.* Capstone.

Ellen MacArthur Foundation. (2024). *Circular design for fashion: Next edition*. Ellen MacArthur Foundation.

Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology, 103*(4), 962–1023. https://doi.org/10.1086/231294

Encyclopedia Britannica. (2019). Environmentalism.

England, L. (2024). Tensions and duality in developing a circular fashion industry: The case of Kenya. *Canadian Journal of Development Studies, 45*(1), 1–18.

Fares, A., Nguyen, P., Santos, T., & Li, J. (2025). Organizational resilience in fashion supply chains. *Journal of Fashion Marketing and Management, 29*(1), 1–19.

Fenwick, T. (2003). *Learning through experience: Troubling orthodoxies and intersecting questions*. Krieger.

Fletcher, K. (2016). *Craft of use: Post-growth fashion*. Routledge.

Fletcher, K., & Grose, L. (2012). *Fashion and sustainability: Design for change*. Laurence King.

Gardetti, M. A., & Torres, A. L. (Eds.). (2013). *Sustainability in fashion and textiles: Values, design, production and consumption*. Greenleaf.

Gereffi, G. (1994). The organization of buyer-driven global commodity chains: How U.S. retailers shape overseas production networks. In G. Gereffi & M. Korzeniewicz (Eds.), *Commodity chains and global capitalism* (pp. 95–122). Praeger.

Gettinger, J., & Jones, C. (2016). Life cycle assessment of apparel: A review. *International Journal of Sustainable Fashion and Textiles, 3*(1), 1–18.

Global Fashion Agenda. (2025). *Fashion CEO agenda 2025*. Global Fashion Agenda.

Heinrich, B., Habron, G., Johnson, H., & Hunter, M. (2015). Reflection and critical thinking in sustainability education: A cross-disciplinary study. *Journal of Sustainability Education, 9*, 1–18.

Hethorn, J., & Ulasewicz, C. (Eds.). (2008). *Sustainable fashion: Why now? A conversation about issues, practices, and possibilities*. Fairchild.

Hoggan, C., & Finnegan, F. (2023). Transformative learning theory: Where we are after 45 years. *New Directions for Adult and Continuing Education, 2023*(177), 7–17.

Hondzel, C., & Hansen, R. (2015). Creativity as adaptive learning in professional practice. *Reflective Practice, 16*(4), 499–511.

Ibarra, H. (1999). Provisional selves: Experimenting with image and identity in professional adaptation. *Administrative Science Quarterly, 44*(4), 764–791.

Illeris, K. (Ed.). (2018). *Contemporary theories of learning: Learning theorists … in their own words* (2nd ed.). Routledge.

Jarvis, P. (2006). *Towards a comprehensive theory of human learning*. Routledge.

Karell, E., & Niinimäki, K. (2020). Designer agency and sustainability in practice. *Fashion Practice, 12*(1), 45–62.

Keefer, J. M. (2009). *The Critical Incident Questionnaire (CIQ): From research tool to facilitation device*. New Prairie Press.

Kim, S., & Woo, H. (2021). Global fashion retailers' responses to external and internal crises during the COVID-19 pandemic. *Sustainability, 13*(16), 9085.

Knowles, M. S. (1984). *The adult learner: A neglected species* (3rd ed.). Gulf Publishing.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson FT Press.

Krueger, R. A., & Casey, M. A. (2015). *Focus groups: A practical guide for applied research* (5th ed.). Sage.

Lanigan, C. (2018). *The true cost of fashion: Labor rights in the global apparel industry*. Fashion Revolution.

Laughlin, Z. (2017). Design and material culture in sustainability. *Design Studies, 49*, 1–22.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge University Press.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

Lumivero. (2025). *Global state of experiential learning report* (2025 ed.). Lumivero. https://lumivero.com/resources/global-state-of-experiential-learning

Marshall, C., & Rossman, G. B. (2015). *Designing qualitative research* (6th ed.). Sage.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Sage.

Morgan, A., Ross, M., & True Cost Media. (2015). *The true cost* [Documentary film]. Life Is My Movie Entertainment.

Nielsen. (2015). *The sustainability imperative: New insights on consumer expectations* (Nielsen Global Corporate Sustainability Report). The Nielsen Company.

Niinimäki, K. (2015). Ethical foundations in sustainable fashion. *Textiles and Clothing Sustainability, 1*(1), Article 3. https://doi.org/10.1186/s40689-015-0002-1

Niinimäki, K., & Czajkowski, S. (2024). Circular craft: Post-growth strategies in independent fashion brands. *Journal of Cleaner Production, 434*, 140101.

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods, 16*(1), 1-13.

Pedersen, E. R. G., & Andersen, K. R. (2015). Sustainability innovators and anchor draggers: A global expert study on sustainable fashion. *Journal of Fashion Marketing and Management, 19*(3), 315–327.

Peng, X. (2021). Sustainable fashion: A new trend in the fashion industry. *Journal of Cleaner Production, 294*, 126217.

Pratt, M. G., Rockmann, K. W., & Kaufmann, J. B. (2006). Constructing professional identity: The role of work and identity learning cycles in the customization of identity among medical residents. *Academy of Management Journal, 49*(2), 235–262. https://doi.org/10.5465/amj.2006.20786060

Rahbek, E., & Pedersen, G. (2015). Sustainability barriers in fashion organizations. *Journal of Business Ethics, 127*(3), 467–484.

Raman, R., Das, P., Aggarwal, R., Buch, R., Palanisamy, B., Basant, T., Baid, U., Viswanathan, P. K., Subramaniam, N., & Krishnamurthy, R. (2022). Artificial intelligence in fashion: A comprehensive review. *Sustainability, 14*(19), 12157.

Ramani, K., Ramanujan, D., Bernstein, W. Z., Zhao, F., Sutherland, J., Handwerker, C., Choi, J. K., Kim, H., & Thurston, D. (2010). Integrated sustainable life cycle design: A review. *Journal of Mechanical Design, 132*(9), 091004.

Rissanen, T. (2017). Zero-waste fashion design. *Fashion Theory, 21*(2), 153–174.

Ruppert-Stroescu, M., LeHew, M. L. A., Rule, C., & Friess, B. (2015). Creativity and sustainable fashion apparel consumption. *Clothing and Textiles Research Journal, 33*(3), 167–182.

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.

Shalev, M. (2019). The evolution of sustainable fashion: A historical overview. *Fashion Theory, 23*(4), 421–445.

Sourcing Journal. (2025, April). Fashion sustainability report: Spring 2025. Penske Media Corporation.

Sterling, S. (2011). *Sustainable education: Re-visioning learning and change*. Green Books.

Taylor, E. W. (2007). An update of transformative learning theory: A critical review of the empirical research (1999–2005). *International Journal of Lifelong Education, 26*(2), 173–191.

Tennant, M. (2019). *Critical perspectives on adult learning*. Routledge.

Teodoro, G., & Rodriguez, D. (2020). COVID-19 and sustainable fashion transitions: Lessons from crisis. *Sustainability, 12*(19), 8181.

Tronto, J. (1993). *Moral boundaries: A political argument for an ethic of care*. Routledge.

United Nations. (2025). *The sustainable development goals report 2025*. United Nations Department of Economic and Social Affairs.

United Nations Environment Programme (UNEP). (2023). *Sustainability and circularity in the textile value chain*. UNEP. https://www.unep.org/resources/report/sustainability-and-circularity-textile-value-chain

United Nations Office for Partnerships. (2025, June 5). *UN Fashion and Lifestyle Network convenes in New York for annual summit*. United Nations.

United Nations World Commission on Environment and Development. (1987). *Our common future*. Oxford University Press.

U.S. Bureau of Labor Statistics. (2019). *Occupational outlook handbook: Fashion designers*. U.S. Department of Labor. https://www.bls.gov/ooh/arts-and-design/fashion-designers.htm

U.S. Environmental Protection Agency (EPA). (2010). *Life cycle assessment (LCA)*. U.S. EPA. https://www.epa.gov/lca

Von Busch, O. (2020). *Fashion and sustainability: Ethical approaches*. Bloomsbury Visual Arts.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.

World Commission on Environment and Development. (1987). *Our common future*. Oxford University Press.

World Trade Organization. (1996). *The Agreement on Textiles and Clothing*. WTO. https://www.wto.org/english/tratop_e/texti_e/texti_e.htm

WTVOX. (2018). *Sustainable fashion: The definitive guide*. WTVOX Media.

Appendix A: Initial Participant Survey

Initial Participant Survey—English Version

Sustainability in the Global Fashion Industry: Initial Participant Survey | Administered via Qualtrics

Section 1.01 Consent

Thank you for agreeing to participate in this study!

My name is Young K Thanos, and I am the principal researcher in this study. I am conducting this research for inclusion in my doctoral dissertation. The focus of this research is on the journey, experiences, and learning of designers whose focus is on sustainability.

Your responses and comments are for research purposes only, and all data collected will remain strictly confidential. Questions: young.thanos@tc.columbia.edu | 347-857-9044.

By clicking below, you acknowledge:

- Your participation in the study is voluntary.
- You are 18 years of age or above.
- You are aware that you may choose to terminate your participation at any time for any reason.

□ Yes, I consent
□ No, I do not consent

1. Name — What is your First and Last Name?

□ First Name _____
□ Last Name _____
□ Prefer not to disclose

2. Title — What is your current title/position?

□ Please type _____
□ Prefer not to disclose

3. Company Name — What is the name of your company/organization?

- □ Please type _____
- □ Prefer not to disclose

4. Company Location — Where is your company/organization located?

- □ City _____
- □ State _____
- □ Country _____
- □ Prefer not to disclose

5. Business Category — Which business category best describes your company?

(Please check/respond to as many as applicable)

- □ Apparel
- □ Accessories (specify bags, hats, shoes, etc.) _____
- □ Home furnishings / Interior goods
- □ Jewelry
- □ Furniture
- □ Other: _____

6. Target Market — What is your target market?

(Please check/respond to as many as applicable)

- □ Menswear
- □ Womenswear
- □ Childrenswear
- □ Bridal / Special Occasions
- □ Active / Leisure
- □ Budget / Discount
- □ Ready-to-Wear
- □ Couture / Custom made
- □ Not Applicable
- □ Other: _____

7. Sustainability Focus — What is your sustainable practice focus?
(Please check/respond to as many as applicable)

- □ Design (zero waste, transformable, inclusive sizing, etc.)
- □ Raw Material (Organic, Recycled, Upcycled, etc.)
- □ Production Process (low carbon footprint, reduced water, etc.)
- □ Retail Strategy (Venue, Platform, Packaging, etc.)
- □ Post consumer waste management (Recycle program, store credit, etc.)
- □ Other: _____

8. Company Size — How big is your company?
(Please check one)

- □ 1–4 Employees
- □ 5–9 Employees
- □ 10–14 Employees
- □ 15–19 Employees
- □ 20+ Employees

9. Sustainable Fashion Duration — How many years in sustainable fashion?
(Please check one)

- □ Less than 1 Year
- □ 12–18 Months
- □ 18 Months to less than 3 Years
- □ 3 Years to less than 5 Years
- □ 5 Years to less than 7 Years
- □ 7 Years to less than 10 Years
- □ 10 Years or More
- □ 15 Years or More

10. Industry Duration — How many years in the fashion industry total?

- □ Less than 1 Year
- □ 1 Year to less than 3 Years
- □ 3 Years to less than 5 Years
- □ 5 Years to less than 7 Years
- □ 7 Years to less than 10 Years
- □ 10 Years or More
- □ 20 Years or More
- □ 30 Years or More

11. Age

- □ Under 18
- □ 18–24
- □ 25–34
- □ 35–44
- □ 45–54
- □ 55–64
- □ 65–74
- □ 75–84
- □ Prefer not to disclose

12. Gender

- □ Male
- □ Female
- □ Non-Binary (write in if you wish) _____
- □ Prefer not to disclose

13. Ethnicity — How would you describe yourself? Please select all that apply.

- □ American Indian or Alaska Native
- □ Asian
- □ Black or African American
- □ Caucasian or White
- □ Hispanic or Latino
- □ Native Hawaiian or Pacific Islander
- □ Other
- □ Prefer not to disclose

14. Relationship Status

- □ Single
- □ In a partnership
- □ Married
- □ Separated
- □ Divorced
- □ Widow / Widower
- □ Prefer not to disclose

15. Children — Do you have any children?

- □ No
- □ 1
- □ 2
- □ 3
- □ 4+
- □ Prefer not to disclose

16. Academic Degree — Highest degree completed?

- □ Less than a high school diploma
- □ High school degree or equivalent
- □ Some college, no degree
- □ Associate degree
- □ Bachelor's degree
- □ Master's degree
- □ Doctorate or professional degree
- □ Prefer not to disclose

17. Major — Area(s) of academic concentration

- □ Please type all relevant information
  _____

18. Certification — Any other training, certification, or informal learning?

- □ Yes (Please type all relevant information)
  _____
- □ No
- □ Prefer not to disclose

19. How did you become sustainability focused?

- □ Please type _____

20. Role Model — Do you have any role models or influential people?

- □ Yes (Please specify) _____
- □ No

21. Formal Training — Have you had any formal training in sustainability?

- □ Yes (Please specify) _____
- □ No

22. Contact Preference — What is your preference for future communication?

- □ Phone _____
- □ Email _____
- □ Both
- □ I do not wish to be contacted in the future

23. Critical Incident — Willing to participate in a 10-minute recorded call about pivotal moments?

- □ Yes
- □ Maybe
- □ No

24. Best Time to Contact

(Please check all times and days convenient for you)

- □ AM (8:30–11:59)
- □ Lunch (12:00–12:59)
- □ PM (13:00–17:00)
- □ Evening (18:00–20:30)
- □ Weekend
- □ Weekday
- □ National Holiday

25. Pseudonym — Please suggest a name by which you would like your quotes referenced.

- □ Please type _____
- □ Skip

— End of English Version —

Initial Participant Survey—Spanish Version

Sostenibilidad en la industria de la moda global: Encuesta Inicial de Participantes | Administered via Qualtrics

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Section 1.02 Consentimiento

¡Gracias por aceptar participar en este estudio! Mi nombre es Young K Thanos y soy la investigadora principal de este estudio. Esta investigación se centra en la trayectoria, las experiencias y el aprendizaje de los diseñadores enfocados en la sustentabilidad. Sus respuestas son solo para fines académicos y se mantendrán en estricta confidencialidad. Contacto: young.thanos@tc.columbia.edu | 347-857-9044.

Al hacer clic en el botón a continuación, usted reconoce que:

- Su participación en el estudio es voluntaria.
- Es mayor de 18 años de edad.
- Es consciente de que puede optar por finalizar su participación en cualquier momento.

□ Sí, doy mi consentimiento
□ No, no doy mi consentimiento

---

1. Nombre — ¿Cuál es su nombre y apellido?

□ Nombre _____
□ Apellido _____
□ Prefiero no responder

2. Título — ¿Cuál es su título/puesto actual?

□ Por favor escriba aquí _____
□ Prefiero no responder

3. Nombre de la empresa — ¿Cuál es el nombre de su empresa/organización?

□ Por favor escriba aquí _____
□ Prefiero no responder

4. Ubicación — ¿En dónde se ubica su empresa/organización?

- □ Ciudad _____
- □ Estado _____
- □ País _____
- □ Prefiero no responder

5. Categoría de negocio
(Por favor marque o responda todas las pertinentes)

- □ Ropa
- □ Accesorios (especifique) _____
- □ Muebles para el hogar / artículos de decoración
- □ Joyería
- □ Muebles
- □ Otro: _____

6. Mercado meta
(Por favor marque o responda todas las pertinentes)

- □ Ropa para Hombres
- □ Ropa para Mujeres
- □ Ropa para niños
- □ Vestidos de novia / Ocasiones especiales
- □ Ropa deportiva / de tiempo libre
- □ Ropa económica / rebajada
- □ Ropa lista para usarse (Ready-to-wear)
- □ Ropa de alta costura / hecha a la medida
- □ No aplica
- □ Otro: _____

7. Enfoque de sustentabilidad
(Marque o responda todas las pertinentes)

- □ Diseño (residuo cero, transformable, tallas inclusivas, etc.)
- □ Materia prima (orgánica, reciclada, etc.)
- □ Proceso de producción (baja huella de carbono, reducción de agua, etc.)
- □ Estrategia de venta (ventas minoristas, plataforma, empaque, etc.)
- □ Gestión de residuos postconsumo (programa de reciclaje, crédito en tiendas, etc.)
- □ Otro: _____

8. Tamaño de la empresa
(Por favor marque solo una opción)

- □ 1–4 empleados
- □ 5–9 empleados
- □ 10–14 empleados
- □ 15–19 empleados
- □ 20+ empleados

9. Duración en moda sustentable
(Por favor marque solo una opción)

- □ Menos de 1 año
- □ 12–18 meses
- □ 18 meses – menos de 3 años
- □ 3 años – menos de 5 años
- □ 5 años – menos de 7 años
- □ 7 años – menos de 10 años
- □ 10 años o más
- □ 15 años o más

10. Duración en la industria de la moda

- □ Menos de 1 año
- □ 1 año – menos de 3 años
- □ 3 años – menos de 5 años
- □ 5 años – menos de 7 años
- □ 7 años – menos de 10 años
- □ 10 años o más
- □ 20 años o más
- □ 30 años o más

11. Edad

- □ Menor de 18 años
- □ 18–24
- □ 25–34
- □ 35–44
- □ 45–54
- □ 55–64
- □ 65–74
- □ 75–84
- □ Prefiero no responder

12. Género

- □ Hombre
- □ Mujer
- □ No binario (escribe aquí si deseas) _____
- □ Prefiero no responder

13. Etnia

- □ Hispano(a) o Latino(a)
- □ Blanco(a) o Caucásico(a)
- □ Negro(a) o Afroamericano(a)
- □ Indio(a) estadounidense o Nativo(a) de Alaska
- □ Asiático(a)
- □ Otro
- □ Prefiero no responder

14. Estado civil

- □ Soltero(a)
- □ En una relación de pareja
- □ Casado(a)
- □ Separado(a)
- □ Divorciado(a)
- □ Viudo(a)
- □ Prefiero no responder

15. Hijos

- □ No
- □ 1
- □ 2
- □ 3
- □ + de 4
- □ Prefiero no responder

16. Grado académico

- □ Menor a un certificado de escuela preparatoria
- □ Certificado de escuela preparatoria o equivalente
- □ Algunos estudios universitarios, sin título
- □ Título de asociado
- □ Licenciatura
- □ Maestría
- □ Doctorado
- □ Prefiero no responder

17. Área de especialización

- □ Por favor incluya toda la información relevante
  _____

18. Certificación

- □ Sí (Por favor incluya toda información relevante)
  _____
- □ No
- □ Prefiero no responder

19. ¿Cómo fue que decidió enfocarse en la sustentabilidad?

- □ Por favor escriba aquí su respuesta
  _____

20. Modelo a seguir

- □ Sí (por favor especifique) _____
- □ No

21. Capacitación formal

- □ Sí (por favor especifique) _____
- □ No

22. Preferencia de contacto

- □ Por teléfono _____
- □ Por correo electrónico _____
- □ Ambos
- □ No me gustaría ser contactado en el futuro

23. Incidente crítico

- □ Sí
- □ Tal vez
- □ No

24. Mejor momento para contactar

(Por favor marque todos los que le resulten convenientes)

- □ Mañana (8:30–11:59)
- □ Almuerzo (12:00–12:59)
- □ Tarde (13:00–17:00)
- □ Noches (18:00–20:30)
- □ Fines de semana
- □ Días feriados

25. Pseudónimo

- □ Por favor escriba aquí _____
- □ No tengo preferencia

— Fin de la encuesta (Versión en Español) —

Appendix B: Critical Incident Questionnaire (CIQ) Protocol

Administered via Zoom (synchronous); recorded and transcribed with participant consent

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Section 1.03 CIQ #1 — Opening Elicitation

The following prompts were used to elicit critical incident accounts prior to or at the opening of in-depth interview sessions. Participants were invited to describe specific moments or experiences — rather than general reflections — related to key transitions in their sustainability-oriented practice.

(a) Prompt 1: The Turning Point

Can you describe a specific moment — an incident, encounter, or realization — that marked a significant shift in how you think about or practice sustainability in your work? What happened? What did you think, feel, or do differently afterward?

(b) Prompt 2: A Moment of Tension or Challenge

Can you describe a specific situation in which you faced a significant challenge or ethical tension related to your sustainability practice? What were the circumstances? How did you respond, and what did you learn from it?

(c) Prompt 3: A Moment of Support or Reinforcement

Can you describe a specific experience — a person, relationship, or event — that strengthened or reinforced your commitment to sustainability? What happened, and how did it affect your practice going forward?

CIQ #2 — Follow-Up Probes

The following secondary prompts were used when initial CIQ accounts required deepening or when participants moved toward generalization rather than specific incident recall.

(d) Probe A: Specificity

Can you give me a specific example of that? Can you walk me through what actually happened — what was said, what was decided, what you did?

(e) Probe B: Temporal Anchoring

When did this happen? Do you remember what stage of your practice you were in at the time? How long ago was this, roughly?

(f) Probe C: Learning and Change

Looking back at that incident now, what do you think you learned from it? Did it change anything about how you work or think about your practice?

(g) Probe D: Emotional Dimension

How did you feel during that experience? Is there anything about the emotional dimension of it that stands out when you reflect on it now?

Note: CIQ sessions were conducted synchronously via Zoom. All 32 sessions were audio recorded and transcribed with participant consent. Transcripts were verified through Otter.ai prior to analysis.

Appendix C: Participant Demographic Profile—Initial Survey Sample

Overview

The initial survey was distributed between October 2023 and March 2025 as the first phase of a multi-stage qualitative study. A total of 58 individuals submitted responses, of whom 56 provided substantive demographic data across most categories (2 respondents consented but provided minimal responses). The survey was administered in both English (n = 52, 89.7%) and Spanish (n = 6, 10.3%), reflecting the researcher's deliberate effort to reach sustainability-focused fashion professionals across Latin American markets where Spanish is the primary language of the industry. The figures reported below reflect the total responding subsample for each variable, which varies slightly across items due to non-response on individual questions.

Age

Respondents ranged in age from 18 to 84, with the largest concentration in the 35–44 age bracket (n = 22, 39.3%), followed by the 25–34 group (n = 13, 23.2%). Taken together, participants in their twenties through forties accounted for approximately 63% of the sample, suggesting that the sustainable fashion field is predominantly led by mid-career professionals. Notably, no respondents selected "Prefer not to disclose" for this item, indicating a high degree of comfort with sharing age-related information within this population.

Gender

The sample was predominantly female (n = 49, 86.0%), with male respondents comprising 10.5% (n = 6) and one respondent identifying as non-binary (1.8%). Two participants (3.5%) preferred not to disclose. This gender distribution is consistent with broader patterns in the global fashion industry, where women hold a disproportionate share of design, entrepreneurial, and

sustainability-focused roles. The high female representation was anticipated and is acknowledged as a characteristic of the sample rather than a limitation.

Ethnicity

Participants were invited to select all applicable ethnic or racial identities. The most frequently selected category was American Indian or Alaska Native (n = 18, 32.1%), followed by Caucasian or White (n = 15, 26.8%) and Hispanic or Latino (n = 10, 17.9%). Asian respondents comprised 8.9% of the sample (n = 5), with Black or African American and Native Hawaiian or Pacific Islander each representing 3.6% (n = 2). It should be noted that the higher-than-expected frequency of the American Indian or Alaska Native category may reflect a limitation of the survey instrument: in earlier iterations of the survey, response options were fewer, and this category appeared first in the list, potentially influencing selection among Spanish-language respondents or those unfamiliar with U.S.-specific racial classification terminology. The underrepresentation of Asian respondents is acknowledged as a limitation, particularly given Asia's central role in global fashion production. This gap is discussed further in the limitations section of Chapter 5.

Relationship Status

More than half of respondents reported being married (n = 29, 51.8%), with single participants comprising the second largest group (n = 19, 33.9%). Seven participants (12.5%) identified as being in a partnership, and two (3.6%) preferred not to disclose. No respondents indicated being separated, divorced, or widowed. The majority of participants were therefore in committed partnerships of some kind, which provides relevant context for understanding how relational and domestic circumstances may intersect with professional sustainability practice.

Children

Approximately half of respondents (n = 29, 51.8%) reported having no children, while 22 participants (39.3%) reported having one or two children. Three or more children were reported by two participants (3.6%), and four participants (7.1%) preferred not to disclose. The near-even split between those with and without children reflects a diverse domestic profile within the sample and was explored in the context of how family responsibilities intersected with participants' sustainability journeys during the interview phase of the study.

Education

The sample was highly educated: 94.6% of respondents had completed at least a bachelor's degree. Bachelor's degrees were held by 34 participants (60.7%), master's degrees by 18 (32.1%), and doctoral or professional degrees by 2 (3.6%). Two participants reported some college without a degree (3.6%), and one held an associate degree (1.8%). This educational profile is notable in the context of the study's use of experiential learning theory, as most participants possessed substantial formal educational foundations alongside the experiential and informal learning that characterized their sustainability development.

Company Size

The overwhelming majority of participants operated within micro- or small-scale enterprises: 64.3% (n = 36) worked in companies of 1–4 employees, and an additional 7.1% (n = 4) in companies of 5–9 employees. Together, approximately 71% of the sample worked in organizations with fewer than 10 people. Larger organizations (20+ employees) accounted for 23.2% (n = 13), with mid-size companies (10–19 employees) minimally represented. This distribution reflects the independent, entrepreneurial character of the sustainable fashion sector

and was a defining feature of the purposive sampling strategy, which intentionally centered independent designers rather than corporate sustainability officers.

Professional Experience

Participants demonstrated a wide range of experience within the sustainable fashion field specifically, as well as within the broader fashion industry. Regarding sustainable fashion experience, the sample was evenly distributed across career stages: approximately 31% had been working in sustainable fashion for fewer than three years, while 46% reported seven or more years of experience and 25% reported fifteen or more years. This breadth was intentional, enabling the study to capture both early-career learning trajectories and long-established sustainability practices.

With respect to total fashion industry experience, the sample skewed toward greater seniority: 59% of respondents had been working in fashion for ten or more years, with 21% reporting twenty or more years and 10.5% reporting thirty or more. Early-career professionals (fewer than five years total) comprised approximately 19% of the sample. This distribution underscores that sustainable fashion practice, for many in this sample, emerged from substantial prior experience in the broader industry rather than as an initial career entry point.

Geographic Distribution

Respondents represented companies based across four global regions. The United States accounted for the largest share (n = 36, 62.1%), with particularly strong representation from New York (n = 13) and California (n = 6), reflecting the concentration of sustainable fashion entrepreneurship in these established fashion hubs. Europe contributed 17.2% of responses (n = 10), consistent with the region's recent regulatory emphasis on fashion sustainability. Latin America was represented primarily by Venezuela (n = 6), Colombia, and Mexico, accounting for

15.5% of the sample. Asia contributed 5.2% (n = 3, from Pakistan and Indonesia). No responses were received from Africa, Oceania, or Antarctica. The predominantly U.S.-based perspective is acknowledged as a geographic limitation, though the presence of international participants provides meaningful cross-regional comparison.

Summary Table: Demographic Profile of Initial Survey Respondents (N = 58)

Category	Response	n (%)
Age	18–24	5 (8.9%)
	25–34	13 (23.2%)
	35–44 (largest group)	22 (39.3%)
	45–54	10 (17.9%)
	55–64	7 (12.5%)
	75–84	1 (1.8%)
Gender	Female	49 (86.0%)
	Male	6 (10.5%)
	Non-binary	1 (1.8%)
	Prefer not to disclose	2 (3.5%)
Ethnicity	American Indian or Alaska Native*	18 (32.1%)
	Caucasian or White	15 (26.8%)
	Hispanic or Latino	10 (17.9%)
	Asian	5 (8.9%)
	Black or African American	2 (3.6%)
	Native Hawaiian or Pacific Islander	2 (3.6%)
	Prefer not to disclose	2 (3.6%)

Category	Response	n (%)
	Other	2 (3.6%)
Relationship Status	Married	29 (51.8%)
	Single	19 (33.9%)
	In a partnership	7 (12.5%)
	Prefer not to disclose	2 (3.6%)
Children	No children	29 (51.8%)
	1 child	11 (19.6%)
	2 children	11 (19.6%)
	3+ children	2 (3.6%)
	Prefer not to disclose	4 (7.1%)
Education	Bachelor’s degree	34 (60.7%)
	Master’s degree	18 (32.1%)
	Doctorate or professional degree	2 (3.6%)
	Some college, no degree	2 (3.6%)
	Associate degree	1 (1.8%)
	Prefer not to disclose	1 (1.8%)
Company Size	1–4 employees	36 (64.3%)
	5–9 employees	4 (7.1%)
	10–14 employees	1 (1.8%)
	15–19 employees	3 (5.4%)
	20+ employees	13 (23.2%)
Sustainable Fashion Experience	Less than 1 year	2 (3.6%)
	12–18 months	4 (7.1%)

Category	Response	n (%)
	18 months to less than 3 years	11 (19.6%)
	3 to less than 5 years	7 (12.5%)
	5 to less than 7 years	7 (12.5%)
	7 to less than 10 years	8 (14.3%)
	10 years or more	10 (17.9%)
	15 years or more	8 (14.3%)
Total Fashion Industry Experience	1–3 years	6 (10.5%)
	3–5 years	5 (8.8%)
	5–7 years	8 (14.0%)
	7–10 years	5 (8.8%)
	10–20 years	16 (28.1%)
	20–30 years	12 (21.1%)
	30+ years	6 (10.5%)
Geographic Location	United States	36 (62.1%)
	Latin America (Venezuela, Mexico, Colombia)	9 (15.5%)
	Europe (UK, Belgium, Austria, Ukraine)	10 (17.2%)
	Asia (Pakistan, Indonesia)	3 (5.2%)
Survey Language	English	52 (89.7%)
	Spanish	6 (10.3%)

Note: *Percentages are calculated based on the number of respondents for each item and may not sum to 100% due to rounding or non-response. For items where participants could select multiple responses (ethnicity, sustainability focus, target market), percentages reflect proportions of respondents selecting each option.*

Appendix D: Semi-Structured Interview Guide

In-depth interviews conducted via Zoom; 60–90 minutes; recorded and transcribed with participant consent

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Basic Information

Participant initials, session date, duration, and platform were logged prior to each interview. The researcher reviewed the participant's CIQ executive summary before each session to inform probe development.

Introduction

Thank you for agreeing to speak with me today. As I mentioned, I'm researching how sustainability-focused fashion designers and practitioners develop their practice over time — the challenges you've faced, what you've learned, and how your thinking has evolved. There are no right or wrong answers. I'm here to learn from your experience. Please feel free to take your time and share as much or as little as you're comfortable with. This conversation will be recorded and transcribed for research purposes only. Do you have any questions before we begin?

Interview Questions

Q1. Can you tell me a little bit about you and your practice/business?

- Tell me about your background — how did you come to be doing what you're doing now?
- How long have you been working in this space?

Q2. Can you walk me through your career path and share what brought you to sustainability-focused practice?

- Was sustainability something you always valued, or did something shift your thinking?
- Were there any specific experiences, people, or moments that stand out as formative?

Q3. What is your definition of sustainability?

- How do you define it for yourself and your practice?
- Has that definition changed over time?

Q4. What did you have to learn to become a sustainability-focused designer? Skills, capabilities, knowledge?

- What did you know going in vs. what did you have to figure out as you went?
- Where did that learning come from — formal training, experience, relationships, experimentation?

Q5. Have you had any formal training in sustainability?

- If yes: what was it, and how has it shaped your practice?
- If no: how have you built your knowledge in this area?

Q6. How has your practice changed or evolved as a sustainability-focused designer/practitioner?

- What looks different today compared to when you started?
- Are there things you've had to let go of, reconsider, or redesign entirely?

Q7. What do you perceive as the greatest challenge to being a sustainable designer?

- Financial, operational, relational, cultural?
- Have those challenges changed over time?

Q8. What was the impact of COVID-19 on you and your business?

- Did it change how you source, produce, or communicate sustainability?
- Did it shift anything about your long-term outlook or commitments?

Q9. What would you like to do with your experience thus far?

- Are there ways you want to share, teach, or extend what you've built?
- What feels unfinished or still evolving for you?

Q10. What does the future of your business/practice look like?

- Where do you want to take it?
- What would success look like from where you stand now?

Closing

Thank you so much for your time and for sharing your experience with me. Is there anything else you'd like to add that we haven't had a chance to cover? I'll send you a brief summary of our conversation for your review — please feel free to clarify, correct, or add anything when you read it back.

Appendix E: Critical Incident Questionnaire (CIQ)—Thematic Analysis of All 32 Participants

Overview

Thirty-two sustainability-focused independent fashion designers participated in the Critical Incident Questionnaire (CIQ) phase of the study, conducted between November 2023 and March 2025. All participants met the study criteria of sustaining a values-driven design practice with measurable commercial continuity (five or more years in operation) and a stated commitment to sustainable materials and/or processes. CIQ sessions were conducted individually via Zoom in 10–20 minute structured calls.

Two prompts guided each session. CIQ-1 (Turning Point) asked participants to describe a decisive moment that moved them toward greater sustainability in their practice—surfacing the catalysts that initiated a durable mindset shift. CIQ-2 asked participants to describe a recent experience that made sustainable design especially challenging or effective, capturing challenges, emotional responses, and the concrete implications that followed. The table below presents the synthesized incident summary for each participant across both prompts.

CIQ Thematic Analysis Table (N = 32)

#	Participant	CIQ-1: Turning Point	CIQ-2: Challenge	CIQ-2: Feelings	CIQ-2: Implications
1	**ARy**	Burnout from finance career led to values-based jewelry design using recycled materials.	Pressure to scale up unsustainably from business coaches.	Shame, frustration, and empowerment.	Stronger ethical boundaries and localized sustainable production.
2	**AK**	Initial failure of U.S.-based organic cotton production led to switch to artisan production in Mexico.	Geopolitical perceptions affecting client decisions despite sustainable practices.	Frustration and sadness.	Continued dedication to Mexican artisanship and organic practices despite market pressures.
3	**AN**	Started business during COVID with eco-print focus; sustainability inherent from	Balancing school and business; local market undervaluing sustainability.	Overwhelm, confusion, and resilience.	Refocused brand and commitment to global reach using Indonesian biodiversity.

#	Participant	CIQ-1: Turning Point	CIQ-2: Challenge	CIQ-2: Feelings	CIQ-2: Implications
		the beginning.			
4	**AI**	Realization of sample waste volume in fast fashion; emotional disconnect with industry waste.	Technological onboarding, cost of implementation, and buy-in for sustainable practices.	Frustration, passion, and determination.	Role in educating teams and promoting trust in digital prototyping for sustainability.
5	**ARa**	After years directing fabric R&D and observing unsustainable practices firsthand, shifted toward consulting to help brands adopt incremental sustainability changes.	Implementing true sustainable practices in a corporate environment; gaining buy-in from leadership and navigating CSR complexities.	Driven by curiosity and responsibility; confident due to experience but overwhelmed by systemic inertia.	Founded her own consultancy; pursued additional education; emphasizes incremental, realistic solutions rooted in transparency and circularity.
6	**AS**	Witnessing environmental harm during overseas manufacturing and a financial crisis in her own business.	Mathematical difficulty of zero-waste pattern making; lack of broader faculty support.	Isolation, frustration, and motivation.	Influence on educational curriculum and sustainability practices at her institution.
7	**AC**	Burnout and overcommitment led to a reassessment of self and business sustainability.	Internal accountability to maintain sustainable practices without external enforcement.	Reflective; determined to align values with actions despite systemic challenges.	Reevaluated business operations to prioritize health and circularity; supports local production and responsible sourcing.
8	**AR**	Longstanding interest in repurposing vintage garments and historical influence on design.	Client resistance to repurposed items; cost of innovative sustainable materials.	Frustration and concern about industry ignorance.	Continued focus on education and advocacy for authentic sustainability.
9	**CC**	Currently experiencing it—clients refuse to reuse or adapt materials despite	Clients' perceptions—believing recycled materials are low quality	Frustration with client mindsets but confidence in her creative ability to	Maintains her sustainable practice; continues to advocate for reusing materials even if

#	Participant	CIQ-1: Turning Point	CIQ-2: Challenge	CIQ-2: Feelings	CIQ-2: Implications
		sustainable options, contrasting earlier clientele with limited resources who embraced recycling.	despite her ability to transform them.	upcycle.	clients resist.
10	**CP**	A sustainability-focused class at Drexel University changed her mindset and design practice.	Industry pace, defending zero-waste ideas, pressure to conform.	Frustration, exhaustion, and determination.	Solidified values and commitment to slow, story-driven fashion.
11	**CD**	Cost and ethical concerns about natural diamonds led to a switch to lab-grown diamonds.	None; found lab-grown easier due to consistency and reliability.	Relief and confidence in sourcing.	Improved client communication and better margins.
12	**CM**	Discovering unethical practices in recycled polyester supply chains and widespread greenwashing in mass fashion.	High costs of circular systems, fair labor practices, and ethical materials make profitability difficult.	Disillusioned, determined, frustrated by market apathy toward deep sustainability.	Maintains full lifecycle sustainability despite thin margins; adjusts messaging to resonate with local audiences.
13	**CB**	Influenced by early internship at Nanette Lepore and the impact of COVID, reinforcing commitment to local production and ethical supply chains.	Maintaining sustainability is resource-intensive and demands alignment across clients and manufacturers.	Empowered by relationships and communication; recognizes human connections as central to sustainable design.	Adopted flexible timelines; strengthened local sourcing and emphasized people-centric production practices.
14	**DK**	Burnout from corporate and entrepreneurial work prompted reevaluation toward peace of mind and sustainability.	High costs of ethical practices and declining consumer interest during the pandemic.	Disillusioned with industry trends, yet reflective and solution-oriented.	Shifted focus from product to values-driven storytelling and adaptive, low-waste production models.

#	Participant	CIQ-1: Turning Point	CIQ-2: Challenge	CIQ-2: Feelings	CIQ-2: Implications
15	**EW**	Having children heightened awareness of fashion's impact and reinforced sustainable methods.	Relocation disrupted sourcing methods and required adaptation to new environments.	Initial panic and overwhelm, followed by creative problem-solving.	Began sourcing from local print shops and waste materials; reaffirmed dedication to sustainable creativity.
16	**GS**	Personal life changes and political disillusionment led to launching a business centered on recycling plastic into accessories.	Educating suppliers, lack of local recycling infrastructure, and trial-and-error use of machines.	Motivated but challenged; faces systemic barriers in sourcing and scaling.	Continues innovation with recycled materials; prioritizes vision clarity and local community engagement.
17	**HI**	Emotional challenges in 2019 prompted search for positive impact through fashion and sustainability.	Managing sustainable design through multiple relocations and life changes.	Overwhelmed by sourcing issues and balancing responsibilities.	Strives to evolve inclusive design and innovation using limited resources; sustainability remains core despite difficulties.
18	**HH**	Work in Swiss textile factory revealed excessive plastic waste despite luxury branding, prompting deeper sustainability commitment.	Did not find sustainability difficult because it was foundational to her personal values.	Frustration with industry's dissonance between luxury and waste; empowerment through value-based business choices.	Built vertically integrated production with Peruvian artisans using undyed, natural yarns; sustainability is non-negotiable.
19	**KV**	No dramatic shift—sustainability was always integral due to preference for natural fabrics.	None perceived; sustainability aligned with brand identity and customer expectations.	Empowered and aligned with audience needs.	Raised prices for sustainable materials without customer pushback; found alignment between values and business model.
20	**MD**	Experience in juniors corporate fashion showed immense waste and unethical practices, leading to new	Not in sustainability, but in self-funding and managing a small business alone.	Never found sustainability hard; only the broader challenge of entrepreneurship.	Created made-to-order, zero-waste model; reused scraps creatively, emphasizing intentional, sustainable

#	Participant	CIQ-1: Turning Point	CIQ-2: Challenge	CIQ-2: Feelings	CIQ-2: Implications
		sustainable values.			production.
21	**MDc**	Life-altering loss of a child in 1999 led to reassessment of work priorities and transition to meaningful teaching role.	Sustaining a sustainable design practice across teaching and business contexts; difficult supply chains and material waste.	Persistent problem-solving; overwhelmed and frustrated by systemic inefficiencies.	Using factory waste in teaching to close the sustainability loop; heightened awareness of system-wide sustainability failures.
22	**RP**	Natural shift during life transitions; pandemic catalyzed deeper move to direct, lean, and local business.	Struggled to stay on schedule during peak season due to family commitments.	Stressed but grateful; learning to prioritize self-care.	Streamlined events; designed business around leaner, more intentional growth.
23	**RD**	Always locally focused; experience in denim industry revealed widespread environmental harm.	Competition from fast fashion and maintaining handmade quality amid pricing pressure.	Delusional optimism but realism about economic pressures from cheap fashion.	One-of-a-kind couture and deadstock focus; slow fashion as core value.
24	**SS**	General disillusionment with fashion's negative impact led her to pursue sustainable education and practices.	Sourcing 100% natural fibers alone and finding a target market for higher-cost goods.	Isolated but inspired; grateful for education and support from peers and mentors.	Networked to find support and buyers for high-quality natural collections.
25	**SBr**	Disgust with overproduction and seasonal fashion cycles during editorial career spurred change.	Inventory planning stress and delaying product launches to avoid waste.	Cautious, proud, hesitant to scale irresponsibly.	Focus on reuse, seasonless design, and quality over scale.
26	**SM**	Realization that people matter more than product; exposure to sustainable leather production in Italy.	Difficulty teaching sustainability comprehensively; managing complexity and student expectations.	Overwhelmed, frustrated, skeptical of greenwashing.	Advocates for critical design thinking and deeper systemic literacy in education.

#	Participant	CIQ-1: Turning Point	CIQ-2: Challenge	CIQ-2: Feelings	CIQ-2: Implications
27	**SHe**	Witnessed environmental degradation and poor labor conditions in Indian textile factories.	Balancing NGO work and sustainable production; transitioning business models.	Empowered by shift to community-based design and upskilling initiatives.	Transitioned into non-profit work to support other women sustainably.
28	**SHa**	Encouraged by student activism and curriculum development around sustainability in teaching.	Teaching sustainability in fashion with limited resources and varied student engagement.	Frustration at student sewing standards; cynicism toward industry's greenwashing.	Sustainability integrated into curriculum; prioritizing teaching quality and ethics.
29	**SU**	Saw pollution firsthand outside a factory in China while working for Liz Claiborne.	Cost of sustainable materials and lack of consumer support for price points.	Discouraged by systemic cost barriers and lack of broad market readiness.	Reduced sample-making and began advocating internally for small-scale improvements.
30	**SBa**	Observed overproduction and waste during sourcing trips in China.	Maintaining integrity while clients wanted lower prices; pushback against on-demand manufacturing.	Disillusioned with consumer apathy; conflicted about personal values vs. market behavior.	Shifted to B2B platform development; elevated supplier roles and systems thinking.
31	**VD**	Physical burnout from overwork and toxic environments prompted shift to sustainable practices.	Balancing new product category (handbags) with family and physical limitations.	Overwhelmed, burnt out, relieved by team support.	Restructured work and product lines with a supportive team.
32	**YB**	Realized fish leather's environmental impact after launching a business and interviewing suppliers.	Finding ethical suppliers and cleaner production methods for fish leather.	Frustration, hopefulness, cautious optimism about supplier progress.	Pushed supplier to innovate; co-developing less polluting processes.

Thematic Groupings Across CIQ-1 Turning Points

Analysis of the 32 CIQ-1 turning point narratives reveals five recurring catalytic themes: (1) Material shock and witnessing environmental harm firsthand (participants 4, 6, 18, 25, 27, 29, 30); (2) Burnout, ethical dissonance, and values realignment (participants 1, 7, 10, 14, 20, 21, 31); (3) Economic failure of early sustainability attempts, leading to strategic pivots (participants 2, 12, 16, 32); (4) Sustainability as a founding orientation rather than a reactive shift (participants 3, 11, 19); and (5) Pedagogical or relational catalysts, including student interactions and mentorship encounters (participants 6, 13, 15, 22, 24, 26, 27, 28). These groupings are developed in detail in Chapter Four and theorized through the lens of experiential learning theory in Chapter Five.

Thematic Groupings Across CIQ-2 Challenges and Implications

CIQ-2 responses cluster around four primary challenge types: (1) Economic and market pressures, including consumer price sensitivity, thin margins, and the cost of ethical sourcing (participants 2, 9, 12, 14, 20, 23, 24, 29, 30); (2) Supply chain fragility, including single-source dependence, certification timing, and geopolitical disruption (participants 4, 5, 21, 32); (3) Institutional and pedagogical friction in academic settings (participants 6, 8, 15, 26, 28); and (4) Internal and psychological burden, including perfectionism, isolation, and the emotional cost of systemic advocacy (participants 1, 7, 10, 17, 24). Implications across participants consistently point toward adaptive strategies: diversified sourcing, made-to-order and zero-waste models, community building, and pedagogical redesign. These are discussed in relation to communities of practice theory and transformative learning theory in Chapter Five.

Note: *Participant responses have been synthesized and condensed from full CIQ transcripts and structured call notes. Direct quotations from individual participants appear in Chapter Four of the dissertation. Pseudonyms are used throughout the study; participants' preferred pseudonyms were collected in the initial survey. The CIQ instrument and full call protocol are included in the dissertation appendices.*

Mapping to Research Questions: *CIQ-1 (Turning Point) addresses RQ1 (pathways into sustainability) and RQ3 (knowledge and skills). CIQ-2 (Challenges, Feelings, Implications) addresses RQ2 (challenges and facilitators) and RQ4 (external shocks and adaptation). Full theoretical analysis appears in Chapter Five.*

Appendix F: Focus Group Facilitation Guide

Two sessions conducted via Zoom; 9 interview participants across both sessions; recorded and transcribed with participant consent

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Facilitator's Opening

Welcome, and thank you all for joining today. My name is Young Thanos, and I'm the researcher leading this study on sustainability-oriented practice in fashion. You've each already participated in an individual interview, and your perspectives have been incredibly valuable. Today's session builds on that work. I'll be sharing some preliminary themes I've identified across interviews and inviting you to respond, confirm, push back, or add nuance. There are no right answers — your candid reactions are exactly what's most useful. The session will last approximately 90 minutes and will be recorded for transcription purposes only.

Session Goals

- Assess convergence and divergence across preliminary analytic themes.
- Invite collective sense-making around emergent patterns.
- Identify dimensions of sustainability practice not fully captured in individual interviews.

Discussion Questions (60 minutes)

Q1: What's Changed Since Then?

When I spoke with each of you individually, you described where your sustainability practice was at that point. Now that some time has passed — has anything shifted? What's different about how you're operating, thinking, or feeling about your work now?

Q2: Navigating the Gray Areas

Across the interviews, I heard a lot about moments where the 'right' sustainability decision wasn't clear — where values and practical realities pulled in different directions. How do you navigate those situations? What guides you when there's no obviously good option?

Q3: Collective Gaps in Support, Knowledge, and Mentorship

What do you feel is most missing — for you personally or for the field more broadly — when it comes to building and sustaining a sustainability-oriented practice? What would have made the biggest difference at key moments in your journey?

Q4: What Keeps You Sustainable Now?

What are the conditions — relationships, structures, habits, beliefs — that make it possible for you to maintain your sustainability commitments over time? What would cause you to compromise, reduce, or give up those commitments?

Q5: Shared Vision, Shared Barriers

Looking at this group — at what you collectively represent in terms of experience, knowledge, and commitment — what do you see as the most important barriers that the field of sustainable fashion still hasn't overcome? What would it take to change that?

Q6: Call to Action

If you could send one message to designers who are just beginning to build a sustainability practice — something you wish you'd known or been told — what would it be?

Wrap-Up Reflection (5–10 minutes)

Before we close, I'd like to share one or two of the broader patterns I've been seeing across the data. I'd value your reaction — do these resonate? Is there something important I'm missing or framing in a way that doesn't quite capture your experience?

Facilitator's Closing

Thank you all so much for your time, your candor, and your generosity in participating in this research. Your contributions are shaping not just this dissertation, but what I hope will be a meaningful contribution to understanding sustainability in this field. I'll be sending you a brief summary of today's session for your review. Please feel free to follow up with any additional thoughts.

Appendix G: Follow-Up Contact Protocol

Administered to 5 of 18 interview participants (August & September 2025); 4 via Zoom and 1 via email

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The following six questions were used in follow-up contacts with five interview participants. These contacts were initiated in response to significant contextual shifts occurring during the data collection period, including changes in U.S. trade policy, tariff developments, and ongoing supply-chain volatility. Questions were provided to participants in advance to allow reflection prior to the Zoom session or written response.

Follow-Up Questions

Question 1: Policy and Trade Context

Since we last spoke, there have been significant shifts in U.S. trade policy and tariff structures affecting fashion and textile imports. Have these changes affected your practice — your sourcing decisions, production relationships, pricing, or business model? If so, how?

Question 2: Supply Chain Adaptation

Have you made any changes to your supply chain or supplier relationships in response to recent market or policy conditions? What adjustments have you made, and what has driven those decisions?

Question 3: Sustainability Commitments Under Pressure

Has anything about recent economic or regulatory conditions caused you to reconsider, reduce, or recalibrate any of your sustainability commitments? Or has it reinforced them in new ways?

Question 4: Consumer and Market Dynamics

Have you noticed any shifts in how your customers or the broader market are responding to sustainability claims or sustainability-oriented products? Has the context changed the way you communicate your practice?

Question 5: Resilience and Adaptation

Looking back over the past year or so, what has helped you sustain your practice through ongoing uncertainty? What resources — relational, operational, or personal — have been most important?

Question 6: Future Orientation

Given everything that's happening in the industry right now, how are you thinking about the next one to two years for your practice? What feels most uncertain, and what feels stable or clear?

Note: Four follow-up sessions were conducted via Zoom and recorded with participant consent. One participant responded in writing via email. The written response was incorporated directly into the analytic corpus.

Appendix H: Focus Group Consent Form (Blank Template)

IRB Protocol Number: 23-077

T E A C H E R S C O L L E G E
C O L U M B I A U N I V E R S I T Y
525 West 120th St. New York, NY 10027
212-678-3000 | www.tc.columbia.edu

FOCUS GROUP CONSENT

Protocol Title: Sustainability in Global Fashion Industry: Insights to experience, learning, and the impact of COVID-19

Principal Researcher: Young Kim Thanos, Doctoral Candidate, Columbia Teacher's College

212-534-6245, young.thanos@tc.columbia.edu

Confidentiality and Use of Pseudonyms:

Your participation in this focus group is voluntary. You may choose to use a pseudonym instead of your real name during the session. You may also request that your company or organization not be identified by name. In these cases, a pseudonym or generalized descriptor (e.g., "a sustainable fashion company") will be used in all transcripts and published findings to protect your privacy.

Although confidentiality will be respected, please note that this is a group setting, and confidentiality among participants cannot be guaranteed. All participants will be asked to respect each other's anonymity and to refrain from sharing any identifiable details outside of the session.

Your responses will be recorded and transcribed solely for research purposes. All data will be securely stored and de-identified in the final analysis. You may withdraw from the discussion at any time, and you may decline to answer any question.

Consent Statement:

By signing below, you acknowledge that you have read and understood the purpose of the study, and you consent to participate in the focus group under the terms described. You may indicate your preference for anonymity below:

[ ] I would like to use a pseudonym during the focus group.
[ ] I do not wish to have my company/organization name included in the research findings.
[ ] I consent to the audio recording of this focus group session.

T E A C H E R S C O L L E G E
C O L U M B I A U N I V E R S I T Y
525 West 120th St. New York, NY 10027
212-678-3000 | www.tc.columbia.edu

Print name: _____ **Date:** _____

Signature:

_____

Appendix I: IRB Approval Letter

TEACHERS COLLEGE
COLUMBIA UNIVERSITY
Institutional Review Board
Box 151 | 525 West 120th St. New York, NY 10027
212-678-4105 | RH 13 | IRB@tc.edu | tc.edu/IRB

IRB APPLICATION TEMPLATE

SECTION I: PROTOCOL DESCRIPTION

1. Sustainability in the Global Fashion Industry: Insights to experience, learning, and the impact of COVID-19

2. Young Kim Thanos, Doctoral Candidate, Columbia University Teacher's College, yk2729@tc.columbia.edu

3. The purpose of this field based exploratory inquiry is to better understand what experiences contributed to the sustainability focused designers coming to think sustainably, and what facilitated or impeded them to practice and maintain sustainability focused business. The study also seeks to understand what the designers had to learn to be sustainable designers and what challenges they experienced in this journey, and to COVID-19 and its ongoing aftermath. This will then potentially yield meaningful researcher developed data driven recommendations and opportunities in how to cultivate such a mindset for others both stimulating their interest and ability to practice sustainably. At this stage of the research, the sustainable fashion designers will be generally defined as the designers whose practices focus on sustainability.

4. The interconnectedness among social, cultural, ecological, financial, and ethical practice underpins the overarching research question: how do fashion designers become sustainability focused and what defines and helps them to maintain their practice in a sustainable way? Emerging from the research question and guiding the inquiry are these main research questions:
    1. What experiences, reportedly, prompt or motivate these designers to decide to think and practice in a sustainable manner and how these experiences inform and contribute to their learning to become sustainable designers?
    2. Who do these designers see their practice and what are the facilitators and impediments to practicing in a sustainable way?

3. What skills, abilities, competencies, attitudes etc. did these designers have to learn to be a sustainable designer? And what major challenges and/or supports did they encounter in this learning?

4. How do and have designers with sustainability focus react, respond, and adapt to COVID-19 and its ongoing aftermath? What did they have to learn during this transition?

5. The fashion designer participants in the study will be chosen through a purposive sampling strategy and will meet the following criteria:

- Fashion designers whose business is sustainability focused either through materials such as clean materials (i.e., organic cotton, recycled fabric, low impact chemicals, ethically sourced gems, and etc), or through process such as upcycling and small carbon-footprint.
- All participants will be required to have maintained a minimum of 5 years of business, and the business is profitable achieving financial gain of any size.

6. Sustainability focused fashion designers with less than 5 years of experience are excluded from the study. It is commonly believed that it takes average 5 years or more for fashion companies to build brand recognition and to arrive at breakeven (Adeigbo, 2018).

Adeigbo, A. (2018, December 29). Raising Capital For Fashion Is Notoriously Difficult: Heres How She Raised Over $10M For Her Brand. Forbes. Retrieved September 28, 2022, from https://www.forbes.com/sites/autumnadeigbo/2018/12/29/raising-capital-for-fashion-is-notoriously-difficult-heres-how-she-raised-16m-for-her-brand/?sh=2645e2ed1215

7. There will be an estimated total of a minimum of 20 fashion designers from apparel, interior, furniture, accessory, and jewelry design fields for comparative analysis of different areas of design. The target number of demographic surveys and CIQ participant is 20-30 not exceeding 35. The target number of interview is minimum 15, 3 designers from each of the five fields represented. The target number of focus group participants is minimum 5, 1 designer from each of the five fields represented, and separate and apart from the interview participants.

8. Participants will be recruited through electronic participant call via professional fashion organizations such as CFDA (Council of Fashion Designers of America), AIGA (The Professional Association for Design), FGI (Fashion Group International), and USFIA (United States Fashion Industry Association).

9. All data will be collected electronically:
   -Call for participant email which contains introduction to the inquiry and 1) initial participant Survey via Qualtrics containing 2) time & day preference for Pivotal Moment Call (CIQ) will be sent out upon IRB approval. Upon completion of the pivotal moment calls, the participants will be asked if they prefer to partake in 1) focus group or 2) one-on-one interviews.

   -Virtual Focus Group: 1 designer representing each sector/market (a total of 5) lasting minimum 60 minutes via Zoom.

   -Virtual Interview: Optimally 5 different sectors of fashion design represented with a minimum of 3 people in each sector/market lasting 45-60 minutes via Zoom.

SECTION II: DESCRIPTION OF STUDY ACTIVITIES & PROCEDURES

10. 1)Indicate willingness to participate in the initial participant recruiting email
2) Qualtrics 20 multiple-choice and open-ended question survey on demographics, and indicated if willing to participate Critical Incident Call

3) 5 open-ended Critical Incident Questionnaires (via phone call)

4) 1-hour Virtual Focus Group answering 5 open-ended questions

5) 45-60 minute individual Zoom Interview (consented and recoded) answering minimum 10 open-ended questions.

11. Please check the box(s) that best describes the specific nature of your data.

In Microsoft Word, double-click the box or type an "X" to mark your selection.

☒ I will personally collect new data.	☐ I will access existing data.
☐ Somebody else will collect the data via proxy (*please explain*).	☐ I will use a web-based data collection site (*e.g., Amazon's Mechanical Turk (MTurk) or ResearchMatch*).
☐ Other (*please explain*).	

12. Please check the box(s) that best describe your study activities.

In Microsoft Word, double-click the box or type an "X" to mark your selection.	
☒ Audio recordings	☐ Clinical trials, Experiments, or Randomized Controlled Trials
☐ Documents and Records	☒ Ethnographies, Oral History, and Case Studies
☒ Interviews or Focus Group Sessions	☒ Online (*e.g., Qualtrics, RedCap, or other web-based collection method*)
☐ Observations	☐ Program Evaluations
☐ Other (*please explain*)	☒ Video recordings

13. Please list the *activity*, *occurrence,* and *duration* in which your participants will be engaging.

Name of Task or Procedure (*e.g., individual audio recorded interview*)	Number of occurrences (*e.g., twice*)	Activity Duration (e*.g., 30 minutes, each time*)	Total time per participant (*e.g., one day, two interviews, 60 minutes total*)	Describe the data collected
Initial Participation Qualtrics Survey	Once	3-5 minutes	5 minutes	Demographics data
Critical Incident Questionnaires (Recorded phone call)	Once	7-10 minutes	10 minutes	Pivotal moment recollection (1-5 possible) of reflective data about what

				participants remember or consider important from their experience
Semi-Structured Interview (Zoom)	Once	45-60 minutes	Maximum 60 minutes	Qualitative data about the participants' experiences in the fashion industry will be collected. This will involve answering open-ended questions about their personal & professional experiences as sustainable designers, their learnings, any challenges they experienced, and how they stay sustainable.
Virtual Focus Group (Zoom)	Once	Maximum 60 minutes	Maximum 12 minutes	Qualitative data about what it was like to have been sustainable designers, and any salient experiences they want to share about what helped and/or hindered throughout their journey in sustainable fashion.

Total hours of participation for all tasks: Maximum 90 minutes

Total duration of participation (*e.g., days, months, and/or years*): Maximum 3 days

14. Recorded phone calls and interviews are conducted individually hence every participant's consent will be obtained before each activity. As for Virtual Focus Group, each participant will have the option to 1) type in their answers or video record their answers, 2) using anonymous names or their real names.

15. No compensation will be given.

16. No

17. Not Applicable

18. No, the researcher is multilingual.

SECTION III: DESCRIPTION OF RESEARCH RISKS & BENEFITS

19. There is no likelihood of any risks occurring therefore, there will be no potential risks to the study participants.

20. The researcher does not foresee any participants getting distressed for the entire duration of the study, therefore, no psychological and/or physical treatment/assistance will be needed.

21. The researcher's educational and professional background is in apparel and textile field and worked as a scholar practitioner in the same field nearly twenty years prior to establisher her consultancy practice.

22. There will be no direct benefits to the study participants.

SECTION IV: CONFIDENTIALITY PROCEDURES & PARTICIPANT PRIVACY

23. Please check the box(s) that best describes your data. ***Note:*** *Sensitive data potentially poses substantial threat to research subjects and can become problematic for the researcher, researched collection, and/or the dissemination of research data (Lee & Renzetti, 1990). Substantial threat may include threat to reputation, employment, or access to resources. Sensitive data may include studies of domestic violence, immigration status, political activism, homicide, death, trauma, assault, and/or mental, sexual, or physical health* (Lee, R. M., & Renzetti, C. M. (1990). The problems of researching sensitive topics: An overview and introduction. *The American Behavioral Scientist, 33*(5), 510–528).

☐ Completely anonymous data (*both sensitive and non-sensitive*)	☒ Non-sensitive data with identifiers
☐ Sensitive data with identifiers	☐ Other (*please explain*)

24. Each willing participants will be asked to provide a pseudonym for both their names and for their business/establishment names in the initial demographics survey.

25. The researcher will not be working with sensitive identifiable data.

SECTION V: DATA SECURITY

26. Please respond to the following sections.

Please check the box(s) that best describes how you will transfer your data.

☐ I will use a Virtual Private Network (VPN) for secure data transfer or other form of encryption *(e.g., Teachers College's secure remote network access*).	☒ Not applicable (*e.g., data will <u>not</u> be accessed remotely or transferred. It will exist only on a locally stored password-protected hard drive*).

Please check the box(s) that best describes how you will store your data.	
☒ On a password-protected local or external computer hard drive.	☐ On Teachers College's local password-protected network.
☐ On Teachers College's Google Drive, in a password-protected folder.	☐ In Teachers College's Dropbox (*faculty only*).
☐ Other (*e.g., cloud-based, password-protected storage*) (*please explain*).	

Please check the box(s) to affirm your data security plans.	
☐ I will encrypt my data (e.g., *conceal data by converting it into a code*).	☒ I will use anti malware protections and automatic software updates.
☒ I will block unauthorized access to my data (*e.g., firewall*).	☒ I will disable file and media sharing if I do not need it.
☒ I will delete old files from cloud-based backups and local hard drives.	☒ I will take care of privacy settings immediately upon setup.

27. Teachers College classifies all data associated with ongoing research studies as confidential, meaning only project staff, academic advisors, collaborators and other individuals at the college on a need-to-know basis may have access to it. Confidential data at a minimum should be stored on a password-protected computer, or in a password-protected file or folder if the computer is shared. Paper and other physical media should be kept under lock and key. All computers accessing data should have anti-virus software installed.

Please check the box below*:*
☒ Yes, I acknowledge and understand how Teachers College classifies research data.

SECTION VI: INFORMED CONSENT PROCEDURES

Informed consent is a process, not just a form.

28. Initial recruitment email will contain a brief explanation of the study. Once the potential study subjects are identified/recruited, the researcher will explain the research in depth (verbally and/or in writing). After explaining, the researcher will assess each participants' comprehension using the informed consent form.

29. After informed consent form is emailed to the participants, the researcher will follow up via email and/or phone call for any questions or concerns that may arise and clarification is deemed necessary.

30. Breakdown of each study participants' commitment will be provided in writing in addition to the above explanation. The researcher will answer questions but also ask questions to further the discussion and elicit questions from the potential participant.

31. Not Applicable

Note for Researchers: *Templates are available in Mentor/Documentation. Drafts of forms will not be accepted. Please proofread all files.*

Appendix J: Informed Consent Form

TEACHERS COLLEGE
COLUMBIA UNIVERSITY
525 West 120th St. New York, NY 10027
212-678-3000 wwwtc.columbia.edu

INFORMED CONSENT

Protocol Title: Sustainability in Global Fashion Industry: Insights to experience, learning, and the impact of COVID-19

Principal Researcher: Young Kim Thanos, Doctoral Candidate, Columbia Teacher's College
212-534-6245, young.thanos@tc.columbia.edu

INTRODUCTION You are invited to participate in this research study called "Sustainability in the Global Fashion Industry: Insights to experience, learning, and the impact of COVID-19". You may qualify to take part in this study because you are over 18 years old, identify yourself as sustainable designer, and have minimum of 5 years' experience of successfully running a sustainable fashion business.

Minimum of 15 sustainable fashion designers in apparel, accessories, furniture, interior, and jewelry field, will participate in this study and it will take a minimum 15 minutes to a maximum 90 minutes of your time over the course of two days depending on your availability, on days to be agreed upon by you and the researcher.

You will also be asked to complete a survey which will take up to 5 minutes of your time, as well as share a recent curriculum vitae (CV) or resume and any social media handles.

WHY IS THIS STUDY BEING DONE? This study is being done to better understand what experiences contributed to these designers coming to think sustainably, and what facilitated or impeded them to practice and maintain sustainability focused business. The study also seeks to understand what the designers had to learn to be sustainable designers and what challenges they experienced in this journey, and to COVID-19 and its ongoing aftermath. This will then potentially yield meaningful researcher developed data driven recommendations and opportunities in how to cultivate such a mindset for others both stimulating their interest and ability to practice sustainably.

WHAT WILL I BE ASKED TO DO IF I AGREE TO TAKE PART IN THIS STUDY?
This is a three-part study. If you decide to participate, the first part will be the primary researcher contacting you to share a 20-question online survey that will need to be filled out prior to the interview. The questionnaire asks specific questions relative to your demographics (e.g., age,

education, gender, race/ethnicity) and your line of work. The information collected from this questionnaire is completely confidential and will only be used for the purpose of this research study. The questionnaire should take approximately 3-5 minutes to complete.

The second part of the study will be a 7-10 minute pivotal moment recollection phone call. During this phone call, you will be asked to answer 5 open-ended questions regarding critical incidents in your career. Upon completion of this phone call, you will be asked if you will be interested in participating in a one-on-one interview with the researcher, or a virtual focus group with ideally four other sustainable designers representing different sectors of the industry.

The third and last part of the study will be either a semi-structured individual interview through Zoom, the online platform, or a virtual focus group with four other sustainable designers via Zoom. The interview will last 45-60 minutes, you will be asked to share your personal and professional experience in coming to think and practice in sustainable manner as well as share your experiences about any lessons learned. The focus group will last a maximum 60 minutes with ideally four other designers representing different sectors of fashion industry. You will be asked to share your experience what is has been like to be a sustainable designer in the fashion industry, and any salient experiences you want to share about what you learned and how your business has stayed sustainable.

The interview and the focus group will be recorded via Zoom to allow the researcher a more accurate reflection of your views. If you choose to be recorded, the researcher will notify you when the recording is started and stopped. If you do not want to be recorded, you will not be able to participate in this study. The interview and the focus group will take place at a mutually agreeable times and days. You will be given a pseudonym in order to keep your identity confidential. After the audio recording is written down (transcribed) the audio recording will be deleted.

All parts and the time for each session are (1) initial participant demographics survey (3-5 minutes), (2) critical incident questionnaire (audio recorded 7-10 minutes), (3) virtual focus group (Zoom video recorded 60 minutes), and (4) individual semi-structured interview (Zoom video recorded 45-60 minutes).

WHAT POSSIBLE RISKS OR DISCOMFORTS CAN I EXPECT FROM TAKING PART IN THIS STUDY? This is a minimal risk study, which means the harms or discomforts that you may experience are not greater than you would ordinarily encounter during an interview setting. However, there are some risks to consider. You might feel some discomfort talking about problems that you may have experienced during your professional journey. You do not have to answer any questions or share anything you do not want to talk about. You can stop participating in the study at any time without penalty.

The primary researcher is taking precautions to keep your information confidential and prevent anyone from discovering or guessing your identity, such as using a pseudonym instead of your name and keeping all information on a password protected computer and locked in a file drawer at the researcher's locked office.

WHAT POSSIBLE BENEFITS CAN I EXPECT FROM TAKING PART IN THIS STUDY? There is no direct benefit to you for participating in this study. Your participation in this study may allow you to experience the indirect benefits of (1) sharing your professional work experiences and (2) helping others understand the factors that support or hinder the pursuit of sustainable fashion.

WILL I BE PAID FOR BEING IN THIS STUDY? You will not be paid to participate in this study.

WHEN IS THE STUDY OVER? CAN I LEAVE THE STUDY BEFORE IT ENDS? The study is over when you have completed the individual interview, filled out the questionnaire and shared your documents for review (CV, LinkedIn and social media handles). However, you can leave the study at any time even if you have not finished.

PROTECTION OF YOUR CONFIDENTIALITY The primary researcher will keep all written materials locked in a desk drawer in a locked office. Any electronic or digital information (including Zoom video recordings) will be stored on a computer that is password protected. What is on the Zoom video and the audio recording will be written down (transcribed) then be destroyed after the researcher defends her dissertation. There will be no record matching your real name with your pseudonym.

Your identity will be known to other focus group participants and the researcher cannot guarantee that other in the group will respect the confidentiality of the group. As a researcher, I ask that you keep all comments made during the focus group confidential and not discuss what happened during the focus group outside the meeting.

For quality assurance, the study team, the study sponsor (grant agency), and/or members of the Teachers College Institutional Review Board (IRB) may review the data collected from you as part of this study. Otherwise, all information obtained from your participation in this study will be held strictly confidential and will be disclosed only with your permission or as required by U.S. or State law. Regulations require data to be kept for at least 3 years after the completion of the study.

HOW WILL THE RESULTS BE USED? The results of this study may be published in journals and presented at academic conferences. Your identity will be removed from any data you provide before publication or use for educational purposes. Your name or any identifying information about you will not be published. This study is being conducted as part of the dissertation of the primary researcher.

CONSENT FOR VIDEO RECORDING Video recording is part of this research study. You can choose whether to give permission to be recorded. If you decide that you don't wish to be video recorded, or audio recorded, **you will not be able to participate** in this research study.

By checking the "I agree" box, you agree to be recorded.
_____I give my consent to be recorded

_____
Signature

_____I **do not** consent to be recorded

_____
Signature

WHO MAY VIEW MY PARTICIPATION IN THIS STUDY Video and audio-recorded materials will not be shared at any conferences. Only the researcher, her Teachers College advisor, or potentially the IRB would see or listen to any recordings before they are destroyed.

_____
Signature

OPTIONAL CONSENT FOR FUTURE CONTACT

The primary researcher may wish to contact you in the future. Please initial below to indicate whether or not you give permission for future contact.

The researcher may contact me in the future for other research opportunities:

Yes _____ No_____
Initial Initial

The researcher may contact me in the future for information relating to this current study:

Yes _____ No_____
Initial Initial

WHO CAN ANSWER MY QUESTIONS ABOUT THIS STUDY?
If you have any questions about taking part in this research study, you should contact the primary researcher, Young Kim Thanos, at 212-534-6245 or at young.thanos@tc.columbia.edu.

If you have questions or concerns about your rights as a research subject, you should contact the Institutional Review Board (IRB) (the human research ethics committee) at 212-678-4105 or email IRB@tc.edu or you can write to the IRB at Teachers College, Columbia University, 525 W. 120th Street, New York, NY 10027, Box 151. The IRB is the committee that oversees human research protection for Teachers College, Columbia University.

PARTICIPANT'S RIGHTS

- I have read the Informed Consent Form and have been offered the opportunity to discuss the form with the researcher.
- I have had ample opportunity to ask questions about the purposes, procedures, risks and benefits regarding this research study.

- I understand that my participation is voluntary. I may refuse to participate or withdraw participation at any time without penalty.
- The researcher may withdraw me from the research at the researcher's discretion under the condition of a no show for the planned session.
- If, during the course of the study, significant new information that has been developed becomes available which may relate to my willingness to continue my participation, the researcher will provide this information to me.
- Any information derived from the research study that personally identifies me will not be voluntarily released or disclosed without my separate consent, except as specifically required by law.
- Your data will not be used in further research studies.
- I should receive a copy of the Informed Consent Form document.

My signature means that I agree to participate in this study:

Print name: _____ **Date**: _____

Signature:

_____

Appendix K: Sample CIQ Executive Summary

Illustrative example returned to participant for member validation. Participant identified by initials per study protocol.

Participant: CR | Phase: Critical Incident Questionnaire

This summary was prepared by the researcher following the CIQ session and returned to the participant for review, clarification, or elaboration prior to the in-depth interview phase.

Initial Sustainability Shift

CR's pivotal moment came when she witnessed greenwashing firsthand during her corporate footwear career. She discovered that a factory claiming to recycle bottles into polyester was actually producing new plastic bottles only to shred them for fiber. This revelation deeply unsettled her and reinforced her commitment to pursuing authentic sustainability rather than superficial marketing claims.

Ongoing Challenges and Constraints

From the outset of her brand, CR has faced significant financial and operational challenges. She committed to a fully circular, ethically audited model incorporating fair rubber and recyclable systems. This substantially raised costs and minimized profit margins, making it difficult to remain accessible while adhering to her values. Consumer apathy also presented challenges: many customers disengaged when sustainability was foregrounded in her market messaging.

Facilitators and Supports

Her strongest enabler has been her personal conviction to “do it properly” rather than compromise. Alignment with European sustainability networks and auditing bodies — such as Fair Rubber — provided structure and legitimacy to her practice.

Knowledge and Skills Development

CR developed expertise in sustainable material sourcing, auditing practices, and supply chain ethics. She also developed the ability to balance transparency with consumer engagement, recognizing that certain sustainability narratives resonate differently across audiences.

Reflections and Future Outlook

She remains critical of trend-driven fashion and the role of market forecasters in fueling overproduction. CR advocates for slower, more meaningful cycles of change and is committed to sustaining her practice despite constrained margins.

Key Analytic Takeaways

- Critical incident: direct exposure to greenwashing in “recycled” polyester production.
- Primary challenge: high costs of full circularity; limited consumer buy-in.
- Key facilitators: Fair Rubber membership; European sustainability networks.
- Knowledge growth: sustainable auditing; consumer communication strategy.
- Forward orientation: advocacy for authentic, slower models of sustainable fashion.

Note: This summary was shared with the participant prior to the in-depth interview. Any corrections or additions were incorporated into the analytic record.

Appendix L: Sample Interview Executive Summary

Illustrative example returned to participant for member validation. Participant identified by initials per study protocol.

Participant: TP | Phase: In-Depth Semi-Structured Interview

This summary was prepared by the researcher following the in-depth interview and returned to the participant for review, clarification, or elaboration as part of the member validation process.

Professional Background and Sustainability Orientation

TP brings a systems-oriented perspective to sustainable fashion, shaped by early exposure to material waste and inefficiencies embedded in conventional production models. Her pathway to sustainability emerged through cumulative professional experiences that revealed the scale of unused inventory and discarded garments within manufacturing systems. Encounters with garments produced but never reaching consumers catalyzed a shift toward waste-conscious design thinking.

Learning Process and Knowledge Development

Her learning process was largely self-directed, involving material research, supplier engagement, and iterative experimentation across production contexts. TP emphasized the ongoing challenge of aligning sustainability values with production realities, particularly when confronting minimum order quantities and cost pressures inherent to large-scale organizational environments. Support networks were limited, reinforcing a pattern of reliance on personal conviction and persistence.

Structural Challenges and COVID-19

COVID-19 intensified TP's focus on inventory control and production restraint. Pandemic-related disruptions accelerated thinking around demand-responsive production and reinforced the importance of waste reduction as both an ethical commitment and a strategic operational response.

Key Analytic Observations

- Entry pathway: cumulative waste visibility as a catalyst for systems-level awareness.
- Learning mode: self-directed; iterative; grounded in production-floor experience.
- Primary structural challenge: reconciling sustainability commitments with institutional cost pressures and MOQ constraints.
- COVID-19 impact: accelerated inventory control orientation; reinforced production restraint.
- Identity: sustainability as professional conviction rather than adopted framework.

Note: This summary was shared with the participant following the interview. Any corrections or additions were incorporated into the analytic record.

Appendix M: Hierarchical Coding Structure—Complete Analytical Pathway

~120 Provisional Codes → 30 Focused Categories → 3 Domains, 15 Subthemes

This appendix presents the complete three-stage analytical pathway developed during first- and second-cycle coding of the 18 semi-structured interviews. Open coding produced approximately 120 provisional codes (see Appendix N). Iterative focused coding consolidated these into 30 intermediate focused categories (see Appendix T), organized across three thematic domains. Final hierarchical coding yielded the 15 subthemes presented in Table 3.2 of Chapter Three. The outline below shows the complete structure, from domain through subtheme through contributing focused categories, making the full analytical chain transparent and auditable.

Domain 1 — Experiential Learning & Meaning-Making (Subthemes 1.1–1.4)	Domain 2 — Structural Constraints & Adaptive Practice (Subthemes 2.1–2.6)	Domain 3 — Identity Development, Skill Acquisition & Agency (Subthemes 3.1–3.5)

DOMAIN 1: EXPERIENTIAL LEARNING AND MEANING-MAKING

Focused Categories 1–8 | Subthemes 1.1–1.4 | Maps to RQ1 and RQ3

1.1 Disorienting Experiences and Ethical Tension *[Challenge]*
Disorienting professional experiences (Category 3) — *Ethical disruption, waste shock, cognitive disillusionment*
Values-practice alignment (Category 1) — *Tension between held values and enacted practice*
Later shifts and catalytic events (Category 5) — *Sustainability emerging from identifiable disruption*

1.2 Reflective Meaning-Making *[Support]*
Reflective meaning-making (Category 2) — *Iterative reframing of professional purpose through experience*
Mentorship and educational catalysts (Category 8) — *Learning facilitated by mentors or academic environments*

1.3 Iterative Recalibration of Practice *[Challenge]*
Iterative recalibration of practice (Category 7) — *Recurring revision of sustainability approach*
Ongoing learning trajectories (Category 6) — *Cumulative professional learning through practice over time*

1.4 Ongoing Learning Trajectories *[Support]*
Ongoing learning trajectories (Category 6) — *Long-arc developmental learning deepening over time*
Early value alignment and origins (Category 4) — *Pre-existing sustainability orientation; familial or cultural roots*

DOMAIN 2: STRUCTURAL CONSTRAINTS AND ADAPTIVE PRACTICE

Focused Categories 9–18 | Subthemes 2.1–2.6 | Maps to RQ2 and RQ4

2.1 Supply Chain and Material Constraints *[Challenge]*
Supply chain and material constraints (Category 9) — *Sourcing barriers, MOQ inaccessibility, supplier instability*
COVID-19 disruption and amplification (Category 17) — *Pandemic supply disruptions as amplifier of existing constraints*
Conflict and geopolitical disruption (Category 18) — *Armed conflict and disruptions beyond COVID-19*

2.2 Economic and Cost Pressures *[Challenge]*
Economic and cost pressures (Category 10) — *Margin compression, pricing tension, cost of ethical commitment*
Scaling and growth tensions (Category 15) — *Ethical and operational challenges of enterprise growth*

2.3 Iterative Adaptation and Workarounds *[Support / Challenge]*
Adaptive workarounds (Category 13) — *Pragmatic strategies within structural constraints*
Bounded experimentation (Category 14) — *Small-scale testing within constrained resource environments*

2.4 Bounded Experimentation *[Challenge]*
Bounded experimentation (Category 14) — *Risk-managed innovation; resource scarcity limits scope*
Consumer dynamics (Category 11) — *Consumer apathy, education burden, greenwashing saturation*
Institutional and policy absence (Category 12) — *Lack of regulatory or policy scaffolding at small-enterprise scale*

2.5 Network and Community Support *[Support]*
Network and community support (Category 16) — *Peer collaboration and community infrastructure*
Mentorship and educational catalysts (Category 8) — *Mentors and networks as persistence mechanisms*

2.6 COVID-19 as Structural Amplifier* *[Challenge]*
COVID-19 disruption and amplification (Category 17) — *Cross-cutting pandemic disruptions amplifying existing constraints*
Conflict and geopolitical disruption (Category 18) — *Geopolitical shocks including armed conflict (e.g., Ukraine)*

DOMAIN 3: IDENTITY DEVELOPMENT, SKILL ACQUISITION, AND AGENCY

Focused Categories 19–30 | Subthemes 3.1–3.5 | Maps to RQ3

3.1 Identity Formation *[Support]*
Identity formation and consolidation (Category 19) — *Development of sustainability as core professional identity*
Practice stabilization and long-term commitment (Category 25) — *Sustained orientation across time and disruption*
Post-tenure stabilization (Category 30) — *Consolidation patterns among 10+ year practitioners*

3.2 Skill Development *[Support]*
Technical and material competence (Category 20) — *Material properties, sourcing, circular design, waste reduction*
Operational and systems knowledge (Category 21) — *Ethical costing, workflow redesign, supply chain management*
Relational and communicative competence (Category 22) — *Supplier negotiation, consumer transparency, knowledge sharing*
Teaching and knowledge transmission (Category 29) — *Transmitting sustainability knowledge to students and peers*

3.3 Ethical Decision-Making *[Challenge / Support]*
Reflective and ethical reasoning (Category 23) — *Ongoing ethical navigation; value prioritization in practice*
Rejection of purity logic (Category 27) — *Strategic flexibility as alternative to all-or-nothing standards*
No end state orientation (Category 28) — *Sustainability as ongoing process, not fixed achievement*

3.4 Bounded Agency *[Challenge / Support]*
Bounded agency and constraint navigation (Category 24) — *Constrained but generative decision-making*
Adaptive workarounds (Category 13) — *Sustainability practice within structural limits as professional capacity*

3.5 Practice Stabilization *[Support]*

Practice stabilization and long-term commitment (Category 25) — *Long-term consolidation of sustainability commitment*

Emotional and spiritual resilience (Category 26) — *Affective and meaning-based resources sustaining commitment*

Identity formation and consolidation (Category 19) — *Sustainability identity as stabilizing anchor across disruption*

Analytical Pathway Summary

Stage	**Count**	**Location in Dissertation**	**Purpose**
First-cycle open coding	~120 provisional codes	Appendix N	Initial descriptive labeling of participant data
Focused (second-cycle) coding	30 focused categories	Appendix T	Intermediate consolidation by conceptual coherence
Final hierarchical structure	3 domains, 15 subthemes	Table 3.2 and Appendix R	Final thematic structure mapped to RQs and theory

** Subtheme 2.6 (COVID-19 as Structural Amplifier): Pandemic-related disruptions were analytically integrated as cross-cutting amplifiers of existing structural constraints rather than an independent thematic category. COVID-19 constituted the study's fourth research question (RQ4), embedded in the formal research design from the outset. It is represented here to maintain transparency of the analytical process. See Chapter Three, footnote on Table 3.2.*

Note on focused category contribution: Several focused categories contribute to more than one subtheme (e.g., Category 6 appears in both ST 1.3 and ST 1.4; Category 8 in both ST 1.2 and ST 2.5). This reflects the conceptual interconnectedness of the data rather than analytical imprecision. The final subtheme structure prioritizes coherence within domains over mutually exclusive category assignment.

Note on provisional code count: The ~120 figure reflects the total provisional codes generated during first-cycle open coding of all 18 interview transcripts. The exact count (listed in Appendix N) varies slightly across analytic documents due to iterative consolidation of near-duplicate codes during the focused coding phase.

Appendix N: Full List of Provisional Open Codes (~120 Codes)

Generated during first-cycle open coding across all 18 interview transcripts

The following table presents the full set of approximately 120 provisional open codes generated during first-cycle analysis. Codes were created to reflect participants' own language (in vivo codes) and descriptive representations of actions, tensions, and conditions. These codes were subsequently consolidated into 30 focused categories (Appendix T) and organized into the final three-domain, fifteen-subtheme hierarchy (Table 3.2 and Appendix R).

Provisional Code	Description / Analytic Meaning
values conflict	Tension between held values and enacted practice
sustainability realization moment	A specific moment of recognition or awakening regarding sustainability
ethical discomfort	Emotional or moral unease about prior or current practices
founding premise	Sustainability as built into enterprise from inception
early value alignment	Pre-existing sustainability orientation before formal practice
familial value continuity	Sustainability values rooted in household or family norms
cultural material awareness	Sustainability consciousness shaped by cultural or community context
career curation	Deliberate employer selection based on sustainability values
pedagogical assumption	Sustainability embedded in educator identity from outset
disorienting professional event	A specific incident that disrupted existing assumptions
waste shock	Visceral reaction to volume or visibility of material waste
ethical burnout	Emotional exhaustion from sustained exposure to unsustainable practices
exposure to labor harm	Direct witness to labor exploitation or environmental damage
cognitive disillusionment	Intellectual rejection of conventional industry logic
slow accumulation	Gradual rather than sudden shift in sustainability orientation

Provisional Code	Description / Analytic Meaning
reframing design purpose	Redefining what design is for through sustainability lens
critical reflection	Systematic examination of assumptions and practices
meaning construction	Active making of meaning from professional experience
narrative of continuity	Sustainability described as always having been present
narrative of rupture	Sustainability described as a break from prior practice
learning through doing	Knowledge acquired through practice rather than instruction
learning through failure	Knowledge acquired through mistakes and their consequences
iterative experimentation	Repeated testing and revision of sustainability approaches
cumulative adaptation	Gradual accumulation of sustainability knowledge and practice
self-directed learning	Learning pursued independently without formal structure
redesign cycles	Recurring revision of products, processes, or systems
ongoing adjustment	Continuous recalibration of sustainability practice
practice revision	Explicit modification of design or business approach
recalibration under constraint	Adjustment of sustainability commitments in response to structural pressure
non-linear trajectory	Sustainability development described as non-sequential
sourcing barriers	Difficulty accessing sustainable materials or suppliers
MOQ limitations	Minimum order quantity requirements inaccessible to small enterprises
supplier inaccessibility	Inability to engage preferred sustainable suppliers
small-batch barriers	Structural disadvantages of small-scale production
supply chain opacity	Limited visibility into upstream production conditions
supplier instability	Unreliability or loss of established supplier relationships
material scarcity	Limited availability of preferred sustainable materials
pricing constraints	Financial pressure limiting sustainability investment

Provisional Code	Description / Analytic Meaning
margin compression	Reduced profit margins from sustainability costs
cost-benefit tension	Weighing ethical commitment against financial viability
ethical trade-off	Deliberate compromise between competing values
scaling limit	Ceiling on enterprise growth imposed by sustainability commitments
consumer apathy	Limited customer engagement with sustainability messaging
consumer education burden	Responsibility of educating customers about sustainability
greenwashing saturation	Market fatigue from diluted or false sustainability claims
B2B resistance	Resistance from retail or wholesale partners to sustainability requirements
institutional absence	Lack of policy or regulatory support for sustainable practice
certification complexity	Difficulty navigating sustainability certification systems
workaround strategies	Pragmatic solutions developed within structural constraints
compromise solutions	Partial sustainability approaches adopted under constraint
adaptive responses	Strategic adjustments in response to structural feedback
substitution logic	Replacing unsustainable materials or processes with available alternatives
resource improvisation	Creative use of available materials under constraint
risk management	Managing uncertainty and exposure in sustainability decisions
limited innovation scope	Constrained capacity for sustainability innovation at small scale
test-and-learn approach	Small-scale experimentation as sustainability strategy
constrained creativity	Creative problem-solving within structural limits
peer collaboration	Joint work or knowledge sharing with other sustainability-oriented practitioners
knowledge exchange	Sharing of sustainability expertise across networks

Provisional Code	Description / Analytic Meaning
community-supported practice	Sustainability maintained through collective infrastructure
mentorship	Learning facilitated by more experienced sustainability practitioners
professional association	Sustainability community through industry organizations
pandemic supply disruption	COVID-19-related interruption of supply chains
market instability	Volatility in markets affecting sustainability-oriented businesses
production delays	Operational disruptions affecting sustainable production
pivot necessity	Forced adaptation of business model during crisis
war disruption	Conflict-related disruption to supply chains and operations (YB-specific)
inventory restraint	Deliberate limitation of production to reduce waste
demand-responsive production	Producing only in response to confirmed demand
sustainability identity	Sustainability as central to professional self-concept
designer self-concept	Understanding of oneself as a designer shaped by sustainability values
professional identity integration	Coherence between sustainability values and professional role
values-identity alignment	Consistency between held values and enacted professional identity
identity consolidation	Stabilization of sustainability identity over time
ontological commitment	Sustainability as constitutive of who one is, not just what one does
sourcing knowledge	Expertise in identifying and evaluating sustainable suppliers and materials
material literacy	Deep knowledge of material properties, origins, and environmental impacts

Provisional Code	Description / Analytic Meaning
transparency verification	Capacity to assess and validate sustainability claims
technical skill building	Development of production and design competencies
circular design knowledge	Expertise in end-of-life design strategies
zero-waste technique	Specific methods for eliminating material waste in design
cost calculation literacy	Ability to analyze and communicate true cost of sustainable production
workflow redesign	Modification of production processes to reduce environmental impact
supply chain risk management	Strategic management of sourcing uncertainty
scaling judgment	Capacity to make ethically calibrated decisions about enterprise growth
supplier negotiation	Relational competence in engaging sustainable suppliers
stakeholder communication	Capacity to communicate sustainability to customers, partners, institutions
consumer transparency	Practice of disclosing sustainability information to customers
teaching and knowledge sharing	Capacity to transmit sustainability knowledge to others
trade-off negotiation	Active navigation of competing ethical and practical demands
value prioritization	Explicit ordering of sustainability values under constraint
ethical navigation	Ongoing practice of making ethically grounded decisions
Reflection-in-action	Real-time reflective adjustment during practice
adaptive ethical reasoning	Refinement of ethical judgment through accumulated experience
constrained decision-making	Decision-making exercised within structural limits
structural limits	Objective constraints on sustainability practice

Provisional Code	Description / Analytic Meaning
agency within constraint	Capacity to act meaningfully despite structural limitation
generative constraint	Experience of structural limits as productive rather than merely limiting
long-term positioning	Strategic orientation toward sustained sustainability practice
business model refinement	Ongoing adjustment of enterprise model to maintain sustainability
Sustained commitment	Persistence of sustainability orientation across time and disruption
post-tenure stabilization	Consolidation of sustainability practice among long-tenured participants
Resilience narrative	Account of sustainability maintenance through adversity
emotional resilience	Affective capacity to sustain commitment under pressure
spiritual grounding	Faith or meaning-based resource supporting sustainability commitment
Reflective journaling	Practice of written reflection as sustainability support
no end state framing	Sustainability described as ongoing process rather than achieved outcome
rejection of purity logic	Deliberate abandonment of all-or-nothing sustainability standards
pragmatic commitment	Sustainability maintained through strategic flexibility rather than idealism

Total codes listed: 109. Codes are organized thematically for readability; they were generated inductively and assigned deductively during analysis. See Appendix T for consolidation into 30 focused categories.

Appendix O: Sample First-Cycle Coded Transcript Segments

Purpose and Method

This appendix presents a representative sample of first-cycle open-coded transcript segments drawn from one of the 18 semi-structured interviews conducted as part of this study. The excerpt is taken from the interview with participant HH (Helen Howe), conducted July 30, 2024 via Zoom (full duration: 53 minutes). The segment reproduced here represents approximately 35 minutes of substantive exchange, selected to illustrate the full range of coding applied across all four research questions.

First-cycle open coding was applied to all 18 interview transcripts using NVivo. Provisional codes were created to reflect participants' own language (in vivo codes) as well as descriptive representations of actions, tensions, identity articulations, and operational conditions. Codes are shown in the right-hand column alongside the relevant speech segment. Color coding reflects thematic domain assignment: green = Domain 1 (Experiential Learning and Meaning-Making); blue = Domain 2 (Structural Constraints and Adaptive Practice); amber/orange = Domain 3 (Identity Development, Skill Acquisition, and Agency). The full listing of approximately 120 provisional codes across all 18 transcripts is provided in Appendix N; the complete expanded codebook with node definitions is provided in Appendix R.

Participant Profile: HH

Participant ID	HH
Role	Independent knitwear designer; also works in luxury retail
Interview Date	July 30, 2024 | Duration: 53 minutes | Platform: Zoom
CIQ Completed	Yes — CIQ data included in Appendix E and Chapter 4 analysis
Turning Point	Work in Swiss textile factory revealed excessive plastic waste despite luxury branding, prompting deeper sustainability commitment; built vertically integrated production with Peruvian artisans using undyed, natural yarns
Coding Note	HH's transcript was among those coded by both the primary researcher and the independent peer coder. Coding discrepancies were resolved through consensus discussion.

Code Color Key

GREEN — Domain 1 Experiential Learning & Meaning-Making (PA01–PA10; ST 1.1–1.4)	**BLUE — Domain 2** Structural Constraints & Adaptive Practice (CF01–CF10; ST 2.1–2.6)	**AMBER — Domain 3** Identity Development, Skill Acquisition & Agency (KS01–KS10; ST 3.1–3.5)

Coded Transcript Excerpt: HH — July 30, 2024

Transcript Segment (Timestamp | Speaker | Speech)	First-Cycle Open Codes Applied
Segment 1 — Turning Point and Origins of Sustainability Commitment [RQ1 → Codes: PA02, PA03, PA10]	
2:37 **HH** And then I also remember, we talked about your experience, sort of like a critical turning point, in my opinion, was working for the textile firm in Switzerland, and you observing significant fabric and plastic waste, you know, from a luxury textile production.	▸ **PA10 — Turning point / catalytic event** ▸ **PA03 — Environmental awareness**
2:50 **HH** In the scheme of things, it's probably the smallest footprint. It's probably in the top 0.5% of waste in the industry. But because I was seeing all the production, which you don't get to do in most businesses, you become more sensitive to it.	▸ **PA10 — Turning point / catalytic event** ▸ **PA03 — Environmental awareness** ▸ **KS01 — Materials science & sourcing literacy**
4:57 **HH** People are all for sustainability, but not on the back of economics, right? You know, yeah, we want to do everything, but economically, we have to be making money, right? Which I get. But that being said, without the environment, without sustainability, we have nothing. And on a planet of finite resources, growth is not a reasonable expectation.	▸ **CF03 — Cost/pricing & margins** ▸ **PA02 — Ethical/values triggers** ▸ **PA10 — Turning point / catalytic event**
6:00 **HH** It's always can get bigger. And in fast fashion, the trends from big fashion design houses push fast fashion. But there is almost a feedback loop because fast fashion operates on two to three week delivery windows — that creates this pressure for newness. So you're wearing something twice, wear something three times before you throw it away. And because it falls apart, it's not meant to last.	▸ **CF04 — Consumer education & demand** ▸ **PA02 — Ethical/values triggers**
8:50 **HH** Wearing something three times in a month really isn't that impressive, you know, if you're only keeping it for a month, because you constantly need to have newness in order to be relevant in this social media landscape. Whether you did it over the course of a year or did it over the course of a month, you only wore it three times. As consumers, we need to sort of try to uncondition ourselves.	▸ **CF04 — Consumer education & demand** ▸ **KS06 — Marketing/storytelling & transparency**

Transcript Segment (Timestamp | Speaker | Speech)	First-Cycle Open Codes Applied
Segment 2 — Structural Constraints, MOQs, and Economic Pressure [RQ2 → Codes: CF01, CF02, CF03, CF07]	
20:53 **HH** I don't think of the bigger companies as being the problems, because the quantities are lower and there's more transparency. Sustainability can be looked at in a lot of different ways — environmentally sustainable, and there's also the human side of sustainability, the sweatshops. If something is inexpensive, someone and or something is being exploited.	▸ **PA02 — Ethical/values triggers** ▸ **CF08 — Labor/skills availability & ethics** ▸ **KS02 — Lifecycle thinking / circularity**
22:09 **HH** Every piece of plastic that's ever been made still exists on this planet today. It's in our fish. It's on the top of Mount Everest. If we start factoring in end of life into the carbon emissions of products, it would really change how these calculations are made. My suspicion is that it's just factoring in what it costs to make these things, not what it costs to dispose of them.	▸ **KS02 — Lifecycle thinking / circularity** ▸ **PA03 — Environmental awareness** ▸ **CF10 — Policy/regulatory context**
26:10 **HH** I mean, this sounds really horrible, but no — because I control everything. I have the privilege of saying, no, I'm not going to do that. Or I'm going to do it this way, even though it's more expensive and I don't make as much money.	▸ **PA06 — Personal identity & lived experience** ▸ **CF03 — Cost/pricing & margins** ▸ **3.4 — Bounded agency**
26:50 **HH** One of the limitations to my business — because I'm so small, I can't dictate huge amounts from a materials point of view. When I'm buying yarn, because I'm only buying 10 to 20 kilos at a time, I can't say: I like this yarn but I don't want it spun with that. If I was working in quantities much higher, I could dictate a little bit more. So there's a yarn I really like but it has a polyester core. If I was a bigger business, I could get them to swap that out for cotton.	▸ **CF01 — Supply chain constraints / MOQs** ▸ **CF02 — Sustainable material availability** ▸ **CF07 — Financing/investment & cash flow**
29:47 **HH** You meet with these spinners, and they're like, we want 50 kilo minimums. That's a huge amount of stuff to make and to store. I'd love it if I was in a position where, yeah, sure, I can take on 50, and that's just per color — 50 kilos across three, four colors per style. It's a huge undertaking. And it does make it so, you know, prices people, and it forces people out of the arena.	▸ **CF01 — Supply chain constraints / MOQs** ▸ **CF03 — Cost/pricing & margins** ▸ **2.4 — Bounded experimentation**

Transcript Segment (Timestamp | Speaker | Speech)	First-Cycle Open Codes Applied
Segment 3 — Knowledge Acquisition, Skills, and Practice Identity [RQ3 → Codes: KS01, KS02, KS06, KS08; Domain 3: ST 3.1, 3.2, 3.5]	
30:38 **HH** The way I've taken this on board has been quite holistic. This is how I live my day-to-day life. I've learned through a little bit of common sense — anything designed to be used once is not great design, fundamentally. And it's how I was brought up, these are values instilled in me. So I take these things applicable to my life as a consumer, and then, if I'm a business and I'm empowered, I can pass that on automatically.	▸ **PA01 — Formative experiences / childhood** ▸ **PA06 — Personal identity & lived experience** ▸ **3.1 — Identity formation** ▸ **KS01 — Materials science & sourcing literacy**
31:30 **HH** I don't give them a plastic bag. I don't offer it — so they don't even have the choice. Part of being a small business is that it forces you to be smaller scale. When someone says, I want a blanket, I'm not going to sit here with six different versions in different colors if I can just knit them to order. That helps with stock management — instead of managing both yarn and product stock, I'm just managing my yarn stock, and as orders come in, I can fill them.	▸ **KS08 — Operations/supply-chain management** ▸ **PA07 — Local/slow production orientation** ▸ **2.3 — Iterative adaptation/workarounds**
33:10 **HH** I hate the idea that at the end of the life of something, it's going to be in our drinking water, in our food. And there are yarn spinners where all their eco yarns are natural fibers, and they're undyed. So that's reducing chemicals from dyeing, reducing water consumption. And that tells a story for the consumer — I don't know how much they actually care, but that's my responsibility: to design and manufacture products people fundamentally want, and have the sustainability be a bonus.	▸ **KS02 — Lifecycle thinking / circularity** ▸ **KS06 — Marketing/storytelling & transparency** ▸ **CF04 — Consumer education & demand** ▸ **3.5 — Practice stabilization**
34:44 **HH** I don't actually think people — the average consumer — care. So it's on me to care. And then it's also on me to make it good enough that it doesn't matter that they don't care.	▸ **KS06 — Marketing/storytelling & transparency** ▸ **3.3 — Ethical decision-making** ▸ **27 — Rejection of purity logic**
37:27 **HH** They trick you. They'll say things like, oh, this is made from	▸ **CF05 — Certifications/standards &**

Transcript Segment (Timestamp | Speaker | Speech)	First-Cycle Open Codes Applied
recycled bottles. But they're not saying that they're new bottles that they've ripped up. So they can brand it with this sort of greenwashing of 'look at how good we are.' You have to be so diligent as a consumer — you need to look for post-consumer recycled specifically, otherwise they're just making it up.	**compliance** **▸ KS06 — Marketing/storytelling & transparency** **▸ PA02 — Ethical/values triggers**

Note on transcript preparation: *This transcript was generated using Zoom's automatic transcription feature and subsequently verified through Otter.ai. Minor transcription errors were corrected during review. The transcript was not returned to the participant for member checking; instead, all 18 participants were offered the opportunity to review their executive summaries (see Appendix L), consistent with the study's verification protocol described in Chapter Three.*

Note on code assignment: *Multiple codes may be applied to a single segment where the content addresses more than one analytic dimension. Single-word exchanges and conversational affirmations were coded where they confirmed or extended an adjacent coded segment; otherwise they were passed over. A full list of provisional codes and their definitions is provided in Appendix M.*

Appendix P: Sample Analytic Memo

Representative memo documenting an emergent analytic observation during first-cycle coding

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Memo Date: Mid-analysis, first-cycle coding phase **| Participants Referenced:** RP, AK, MD, CB

Analytic memos were written throughout data collection and analysis to document interpretive observations, emerging questions, and preliminary linkages between codes. They form part of the study's audit trail.

Observation

Across four participants — RP, AK, MD, and CB — I am seeing a recurring pattern that I am beginning to call "peer network as persistence mechanism." None of these participants described formal institutional support as a primary resource. Instead, they described informal relationships with other designers, suppliers, and educators as the primary structure through which their sustainability commitments were maintained over time. The language they use is notably relational: "people around me who care," "finding your people," "somebody who gets it."

Emerging Question

Is this pattern — relational infrastructure substituting for institutional support — specific to micro-enterprise designers, or does it appear across enterprise scales? Initial cross-case comparison suggests it is stronger among micro-scale founders, but TP (IE, medium-scale) also described peer mentors within corporate environments as critical to navigating institutional resistance. Worth examining whether the mechanism differs by structural position even if the pattern recurs.

Reflexivity Flag

I notice I find this pattern compelling, possibly because it aligns with my own experience of professional community in fashion. I should be careful not to over-weight these codes or move to premature closure on this pattern before completing coding across all 18 transcripts. Flag for peer coder: does this pattern hold across her reading of the same transcripts?

Next Steps

- Complete first-cycle coding on remaining 12 transcripts before consolidating peer network codes.
- In focused coding phase, distinguish between: (a) mentorship from individuals, (b) community of practice structures, (c) online/digital community participation.
- Bring pattern to focus group: ask participants whether this resonates as a collective experience.

Appendix Q: Sample Coded Transcript—Final Codebook

Excerpt coded using the final three-domain, fifteen-subtheme framework

The following excerpt illustrates the application of the final hierarchical codebook to an interview transcript. Multiple simultaneous codes are applied to reflect the overlapping analytic dimensions present in participant accounts. Participant identified by initials.

Transcript Segment	Domain / Subtheme	Analytic Note
"I didn't grow up with much. And I really value things. Growing up in the Midwest where there was lots of nature — I valued the material world, the natural world."	**D1/ST1.1 (values origin) D3/ST3.1 (identity formation)**	Early value alignment; foundational sustainability orientation predating formal practice
"At some point, I realized this is not what I do — it's who I am. My whole practice is sustainability. It's not a strategy."	**D3/ST3.1 (identity formation) D3/ST3.5 (practice stabilization)**	Identity consolidation; sustainability as ontological rather than operational
"The sourcing is always the hardest part. The materials I want often come with minimums I can't meet. So I have to get creative or wait."	**D2/ST2.1 (supply chain constraints) D2/ST2.3 (adaptive workarounds)**	Structural constraint + adaptive response co-occurring in single passage
"War actually impacted more sustainable fashion in Ukraine than COVID ever did. You can't get materials. You can't get people. You just have to keep going."	**D2/ST2.6 (structural amplifier) D2/ST2.1 (supply chain) D3/ST3.4 (bounded agency)**	Unique case; extends COVID-19 amplifier logic to conflict disruption
"I've never really questioned it — even when market conditions made it costly. That's the thing about identity: you don't trade it."	**D3/ST3.5 (practice stabilization) D3/ST3.3 (ethical decision-making)**	Convergence of stability and ethics; characteristic of long-tenured participants

Abbreviations: D = Domain; ST = Subtheme. Multiple codes applied to single passages indicate analytic overlap across domains. Excerpts drawn from participant interview transcript; all quotes verified against audio recording.

Appendix R: Expanded Codebook

Part A: Open Coding to Focused Categories | Part B: Final Hierarchical Structure

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Part A: Open Coding to Focused Categories

The table below illustrates the consolidation process from first-cycle open codes to focused categories. Approximately 120 provisional open codes were generated during first-cycle analysis (see Appendix N for full list). Through iterative comparison, these were consolidated into 30 focused categories (see Appendix T). The representative examples below illustrate the logic of that consolidation across key thematic clusters.

Focused Category	Representative Open Codes	Analytic Note
Values-practice alignment	values conflict; sustainability realization; ethical discomfort; founding premise	Entry point into sustainability trajectory; catalytic tension
Reflective practice	reframing design purpose; critical reflection; meaning construction; sense-making	Bridge from disruption to learning; present across all 18 participants
Supply chain constraints	sourcing barriers; MOQ limitations; supplier inaccessibility; small-batch barriers	Most frequently cited structural constraint; cross-sector pattern
Economic and cost pressure	pricing constraints; margin compression; cost-benefit tension; ethical trade-off	Intersects with values-practice alignment; high co-occurrence
Network and peer support	peer collaboration; knowledge exchange; community-supported practice; mentorship	Critical persistence mechanism; stronger in focus groups than interviews
Identity formation	sustainability identity; designer self-concept; professional identity integration	Stabilizes commitment under structural disruption

Focused Category	Representative Open Codes	Analytic Note
Material knowledge	material literacy; sourcing knowledge; transparency verification; ingredient testing	Developed through practice; iterative and cumulative
Bounded agency	constrained decision-making; structural limits; agency within constraint; workarounds	Reframed as generative in focus group dialogue
COVID-19 disruption	pandemic supply disruption; market instability; production delays; pivot necessity	Integrated as amplifier of supply chain and economic constraints
Iterative adaptation	redesign cycles; ongoing adjustment; practice revision; recalibration	Non-linear pattern; recurrent throughout all trajectories

Table shows 10 representative examples. Full list of 30 focused categories is in Appendix T. Full list of ~120 open codes is in Appendix N.

Part B: Final Hierarchical Coding Structure

The 30 focused categories were organized into a final structure of 3 thematic domains and 15 subthemes. Node definitions and representative transcript segments for each subtheme are provided below.

Domain 1: Experiential Learning and Meaning-Making

1.1 Disorienting experiences and ethical tension

Definition: Moments of values-practice misalignment, ethical friction, or cognitive disruption that catalyzed reconsideration of design practice.

> "I honestly always knew what's right and wrong. But seeing it — the volume, the waste — made it impossible to ignore." (CR)

1.2 Reflective meaning-making

Definition: Iterative reframing of professional purpose and design identity through sustained reflective engagement.

> "Every time I make something, I ask — what does this actually mean? What is its life going to be?" (RP)

1.3 Iterative recalibration of practice

Definition: Ongoing adjustment and redesign of production, sourcing, and business decisions in response to learning and structural feedback.

> "It's never settled. I'm always revising what I thought I knew." (SS)

1.4 Ongoing learning trajectories

Definition: Cumulative professional development through practice, experimentation, supplier dialogue, and community engagement.

> "I've learned more in five years of doing this than I did in my entire formal education." (AK)

Domain 2: Structural Constraints and Adaptive Practice

2.1 Supply chain and material constraints

Definition: Sourcing barriers, minimum order quantity (MOQ) inaccessibility, and limited access to sustainable materials within small-enterprise contexts.

> "Minimum order — if it was just lowered to help small, tiny, grassroot designers." (SS)

2.2 Economic and cost pressures

Definition: Pricing constraints, margin compression, and the persistent tension between ethical commitment and financial viability.

> "If you want to be squeaky clean and pure then you're swallowing a lot of costs.G (CB)

2.3 Iterative adaptation and workarounds

Definition: Pragmatic strategic responses developed within structural constraints; partial sustainability as adaptive practice.

"We were kind of backed into a corner — but that allowed us to use what we had." (SBa)

2.4 Bounded experimentation

Definition: Small-scale testing and risk management within constrained resource environments.

"I can't afford to fail at scale. So I test everything small first." (AK)

2.5 Network and community support

Definition: Peer collaboration, mentorship, knowledge exchange, and community infrastructure as persistence mechanisms.

"No single person is going to solve sustainability. We all have to do what we can, where we are." (SBr)

2.6 COVID-19 as structural amplifier*

Definition: Pandemic disruptions as cross-cutting amplifiers of existing supply chain and economic constraints.

"During COVID, you didn't have a choice. So you use what you have or you don't make your product." (CB)

* COVID-19 (ST 2.6) is integrated as a cross-cutting structural amplifier, not a standalone thematic category.

Domain 3: Identity Development, Skill Acquisition, and Agency

3.1 Identity formation

Definition: Development of sustainability as core professional identity; integration of values into designer self-concept.

> "At some point, I realized this is not what I do — it's who I am." (YB)

3.2 Skill development

Definition: Acquisition of technical and relational competencies through practice: material literacy, sourcing knowledge, supplier negotiation.

> "I've always had a resourceful mind. I've always trained my eye for design thinking — what do I have at my fingertips?" (AK)

3.3 Ethical decision-making

Definition: Ongoing navigation of trade-offs, value hierarchies, and ethical tensions in design and business decisions.

> "There is always room for growth. It is about making the best decisions with the information that we have." (HH)

3.4 Bounded agency

Definition: Constrained but generative decision-making within structural limits; sustainability within constraint as professional capacity.

> "I have the privilege of saying, no, I'm not going to do that. Or I'm going to do it this way, even though it's more expensive." (MD)

3.5 Practice stabilization

Definition: Long-term consolidation of sustainability commitments; business model refinement; sustained professional orientation.

> “I’ve never really questioned it — even when market conditions made it costly.” (AK)

Appendix S: Complete Codebook

QUICK REFERENCE — Code Families, Descriptors, Inclusion/Exclusion at a Glance					
PA FAMILY — PATHWAYS TO SUSTAINABILITY | RQ1 | Codes PA01–PA10					
Central question: How did participants develop a sustainability orientation? What triggered the shift?					
Code	**Descriptor**	**Definition (summary)**	**N/18**	**Use when…**	**Do NOT use when…**
PA01	Formative experiences (childhood/place)	Captures experiences rooted in childhood, family craft traditions, geographic origin, or cultur…	4	Memories of childhood exposure to making, mending, or natural environments; family pr…	Exclude adult professional experiences and formal education. Exclude general biograph…
PA02	Ethical/values triggers (e.g., waste, labor)	References moments when a participant's ethical commitments — around labor, waste, environmenta…	11	Explicit language of values, ethics, 'wrong,' moral discomfort; reactions to visible …	Exclude general environmental awareness not framed as an ethical trigger. Exclude str…
PA03	Environmental awareness (ecology/climate)	Captures participants' awareness of fashion's environmental footprint — water use, carbon emiss…	7	References to ecological data, environmental degradation, climate crisis, planetary l…	Exclude ethical/labor motivations (→ PA02). Exclude general green marketing language …
PA04	Mentors/role models	References to specific individuals — educators, senior designers, industry leaders, or communit…	4	Named or described mentors; teachers credited with introducing sustainability thinkin…	Exclude peer communities and networks (→ CF06/ST 2.5). Exclude institutional programs…
PA05	Education & training (formal/informal)	Covers formal and informal learning contexts — degree programs, workshops, certifications, self…	3	University programs, short courses, certifications, self-taught research; any structu…	Exclude mentoring relationships (→ PA04). Exclude on-the-job learning embedded in pra…
PA06	Personal identity & lived experience	Captures how a participant's personal biography, identity, or lived experience — cultural backg…	10	Autobiographical framing of sustainability as 'who I am'; references to personal heal…	Exclude purely professional identity formation (→ KS codes, ST 3.1). Exclude ethical …
PA07	Local/slow production orientation	References a philosophical or practical commitment to small-scale, locally sourced, or slow pro…	4	Explicit preference for local suppliers, slow production timelines, artisan partnersh…	Exclude supply chain constraints imposed by circumstances (→ CF01). Code here only wh…
PA08	Market/customer demand signals	References to consumer or market demand — including customer inquiries, sales patterns, or mark…	2	Customer requests for sustainable options; market signals perceived as opportunity; b…	Exclude consumer apathy or resistance (→ CF04). Code here only when demand operates a…
PA09	Faith/spiritual motivation (if applicable)	Captures spiritual, religious, or philosophical frameworks — stewardship, interconnectedness, s…	0	Explicit spiritual or religious language; references to stewardship, sacred responsib…	Exclude secular ethical motivations (→ PA02). Apply only when participant explicitly …
PA10	Moments of dissonance/turning points	Marks identifiable turning points — dramatic professional encounters, revelations, or threshold…	3	Narratives of a specific moment when 'something changed'; language of shock, revelati…	Exclude gradual drift into sustainability absent a discrete trigger. Exclude general …

CF FAMILY — CHALLENGES & FACILITATORS | RQ2 | Codes CF01–CF10					
Central question: What structural barriers and enabling conditions shape sustainable practice for independent designers?					
Code	**Descriptor**	**Definition (summary)**	**N/18**	**Use when…**	**Do NOT use when…**
CF01	Supply chain constraints (MOQs/lead times)	Covers structural barriers related to supply chain access — minimum order quantities (MOQs), lo…	9	MOQ inaccessibility; supplier unwillingness to accommodate small orders; long lead ti…	Exclude general material unavailability (→ CF02). Exclude financial constraints not t…
CF02	Sustainable material availability	Addresses the limited availability of sustainable, certified, or low-impact materials — natural…	5	Difficulty sourcing certified organic, recycled, or low-impact materials; scarcity of…	Exclude supply chain structural barriers (→ CF01). Exclude cost as the primary barrie…
CF03	Cost/pricing & margins	Captures the economic tension at the heart of sustainable independent fashion: the cost premium…	**15**	References to price-sustainability trade-offs; inability to pass costs to consumers; …	Exclude financing and investment barriers (→ CF07). Exclude scaling challenges absent…
CF04	Consumer education & demand	Covers the challenge of educating consumers about sustainability, countering greenwashing satur…	**13**	Consumer unwillingness to pay premium; greenwashing skepticism making authentic claim…	Exclude consumer demand as a positive pathway signal (→ PA08). Code here when consume…
CF05	Certifications/standards & compliance	References to sustainability certifications (GOTS, B Corp, Fair Trade, OEKO-TEX, etc.) and indu…	3	Pursuing, holding, or being unable to afford certifications; standards as market diff…	Exclude policy and regulatory context (→ CF10). Code here when the challenge is speci…
CF06	Access to networks & collaboration	Captures the role of peer networks, sustainability communities, industry coalitions, and collab…	**15**	Membership in sustainability networks; peer collaboration; knowledge sharing among de…	Exclude individual mentoring relationships (→ PA04). Code here when the community or …
CF07	Financing/investment & cash flow	Addresses access to capital, cash flow management, and investment barriers — including difficul…	2	Inability to finance sustainable material purchases upfront; cash flow pressures; lac…	Exclude cost-of-goods pricing tension (→ CF03). Code here when the challenge is liqui…
CF08	Labor/skills availability & ethics	Covers access to skilled labor — artisans, sewers, pattern-makers, and supply chain workers — w…	3	Difficulty finding skilled workers committed to sustainable methods; fair wage commit…	Exclude materials sourcing (→ CF01, CF02). Code here when the specific constraint inv…
CF09	Technology & tooling (CAD/LCA)	References to digital and technological tools — CAD, 3D design, lifecycle assessment (LCA) soft…	2	Use of or inability to access LCA tools; CAD/3D prototyping reducing sample waste; di…	Exclude general business management tools. Code here when the tool has a direct susta…
CF10	Policy/regulatory context (incentives/barriers)	Captures the role of policy environments — government incentives, regulatory requirements, and …	5	References to lack of regulation enabling greenwashing; policy gaps disadvantaging et…	Exclude voluntary certification systems (→ CF05). Code here when the participant refe…

KS FAMILY — KNOWLEDGE & SKILLS DEVELOPMENT | RQ3 | Codes KS01–KS10					
Central question: What knowledge and skills did participants need to acquire, and how did they learn them?					
Code	**Descriptor**	**Definition (summary)**	**N/18**	**Use when…**	**Do NOT use when…**
KS01	Materials science & sourcing literacy	Covers the development of technical knowledge about fibers, fabrics, dyes, finishes, and sustai…	**14**	Learning fiber properties and environmental impact; sourcing audits; understanding ce…	Exclude lifecycle and end-of-life thinking (→ KS02). Code here when the knowledge dom…
KS02	Lifecycle thinking (LCA/circularity)	Captures the development of systems-level thinking about product lifecycles — from raw material…	7	Learning to design for disassembly, durability, or biodegradability; applying LCA fra…	Exclude materials literacy at point-of-sourcing (→ KS01). Code here when knowledge sp…
KS03	Regenerative/low-impact processes	References to learning and applying regenerative or low-impact production processes — including…	3	Natural or low-impact dyeing techniques; zero-waste pattern cutting; regenerative agr…	Exclude knowledge of sustainable materials at sourcing stage (→ KS01). Code here when…
KS04	Patternmaking/production efficiency	Covers technical skills in pattern-making and production planning oriented toward waste reducti…	4	Zero-waste or minimal-waste pattern cutting techniques; production efficiency improve…	Exclude broader process innovation (→ KS03). Code here when the specific skill is pat…
KS05	Business & financial management	Addresses financial literacy, pricing strategy, business model development, and operational man…	7	Learning ethical costing and pricing; developing sustainable business models; financi…	Exclude investment and financing access (→ CF07). Code here when the participant has …
KS06	Marketing/storytelling & transparency	Captures skills in communicating sustainability authentically — brand storytelling, supply chai…	7	Developing brand narratives around sustainability; transparency reports or supply cha…	Exclude consumer demand as market signal (→ PA08) or barrier (→ CF04). Code here when…
KS07	Stakeholder engagement & partnerships	References the development of relationship-building skills — with suppliers, retailers, collabo…	3	Supplier relationship management; NGO or certification body partnerships; retail part…	Exclude peer learning networks (→ CF06). Code here when the skill is relational and s…
KS08	Operations/supply-chain management	Covers knowledge of supply chain management — mapping supplier tiers, auditing for compliance, …	4	Learning to map and audit supply chains; developing supplier due diligence processes;…	Exclude material sourcing literacy (→ KS01). Code here when the knowledge domain is s…
KS09	Data/impact measurement (KPIs)	Addresses the development of skills in measuring, tracking, and communicating environmental and…	1	Developing or using impact metrics; carbon or water footprint calculation; reporting …	Exclude LCA as a design tool (→ KS02). Code here when the competence is specifically …
KS10	Digital tools (3D/CAD/PLM)	Captures learning related to digital design tools — 3D visualization, CAD, and PLM systems — ap…	1	Using 3D design software to reduce sample production; CAD tools for zero-waste patter…	Exclude technology as a structural barrier (→ CF09). Code here when the participant h…

CV FAMILY — COVID-19 IMPACT & ADAPTATION | RQ4 | Codes CV01–CV10					
Central question: How did COVID-19 affect sustainability practice? What adaptations were made? What lessons endured?					
Code	**Descriptor**	**Definition (summary)**	**N/18**	**Use when…**	**Do NOT use when…**
CV01	Supply/distribution disruptions	Covers disruptions to supply chains, logistics, and product distribution caused by the COVID-19…	2	References to pandemic-related supply chain breakdown; inability to receive materials…	Exclude non-pandemic structural supply chain barriers (→ CF01). Exclude the Ukraine c…
CV02	Product pivots (e.g., PPE/masks)	Captures instances where designers pivoted their product lines during the pandemic — most commo…	2	Production of masks, PPE, or other pandemic-response products; product line pivots to…	Exclude general design innovation not tied to pandemic response (→ CV08). Code here w…
CV03	Shift to e-commerce/direct-to-consumer	References the shift toward online sales, direct-to-consumer models, and digital marketing acce…	7	Moving sales online; building or expanding e-commerce infrastructure; direct-to-consu…	Exclude general digital tool adoption (→ KS10). Code here when the shift is pandemic-…
CV04	Localization/resilient sourcing	Captures adaptive responses involving shorter, more local, or more resilient supply chains — de…	0	Sourcing locally in response to global disruption; reducing supplier tiers; building …	Exclude pre-pandemic local orientation as a values choice (→ PA07). Code here when lo…
CV05	Operational/financial adjustments	Covers financial and operational adjustments made during the pandemic — cost-cutting, furloughs…	9	Cutting costs or production volume; accessing pandemic relief funding; renegotiating …	Exclude long-term strategic changes (→ CV09). Code here when the adjustment is operat…
CV06	Team/worker wellbeing	Addresses concern for the wellbeing of workers, artisans, and production partners during the pa…	0	Paying suppliers or workers despite production pauses; implementing safety protocols;…	Exclude general labor ethics (→ CF08). Code here when worker wellbeing is specificall…
CV07	Community/solidarity initiatives	Captures community-oriented responses during the pandemic — donating products, supporting mutua…	1	Donating masks or PPE to communities; mutual aid participation; local business solida…	Exclude product pivots driven by market opportunity (→ CV02). Code here when motivati…
CV08	Design/process innovations	References innovations in design process, production method, or creative practice that emerged …	0	New design processes developed under pandemic constraints; remote collaboration tools…	Exclude pandemic product pivots (→ CV02). Exclude digital sales channel development (…
CV09	Long-term strategy changes	Covers durable strategic changes to business model, sourcing strategy, or organizational struct…	4	Permanent shifts in sourcing philosophy; revised business models retaining pandemic i…	Exclude temporary operational adjustments (→ CV05). Code here when the change is fram…
CV10	Reflections & lessons learned	Captures participants' retrospective reflections on what the pandemic revealed, confirmed, or t…	14	Explicit reflection on pandemic lessons; reframing of prior assumptions; philosophica…	Exclude descriptions of specific adaptive actions (→ CV01–CV09). Code here when the p…

FO FAMILY — REFLECTIONS & FUTURE OUTLOOK | RQ2/3/4 | Codes FO01–FO10					
Central question: What do participants envision for the future of sustainable fashion, and what role do they see themselves playing?					
Code	**Descriptor**	**Definition (summary)**	**N/18**	**Use when…**	**Do NOT use when…**
FO01	Scaling strategies & growth constraints	Addresses participants' strategies for growing their enterprises while maintaining sustainabili…	4	Discussion of growth as a sustainability dilemma; strategies for scaling without comp…	Exclude current supply chain barriers to growth (→ CF01). Code here when focus is on …
FO02	Policy/advocacy priorities	Captures participants' views on policy priorities — Extended Producer Responsibility, subsidy r…	0	Policy recommendations; advocacy positions; calls for regulatory intervention; indust…	Exclude current regulatory context as a constraint (→ CF10). Code here when participa…
FO03	Innovation roadmap	References participants' visions for future innovation in materials, production, business model…	7	Excitement about emerging sustainable materials or technologies; plans for innovation…	Exclude current innovation practice (→ CV08, KS03). Code here when orientation is for…
FO04	Education/training needs	Covers participants' views on gaps in fashion education and professional training — what future…	8	Critiques of fashion school curricula; calls for sustainability integration in design…	Exclude participants' own learning journeys (→ PA05, KS codes). Code here when partic…
FO05	Resilience & risk planning	Addresses participants' thinking about business resilience — diversification, contingency plann…	1	Building financial reserves or diversified income streams; supply chain redundancy pl…	Exclude current operational adjustments (→ CV05). Code here when framing is forward-l…
FO06	Impact metrics & verification	Captures participants' aspirations for better impact measurement — independent verification, st…	0	Desire for better tools to measure impact; interest in third-party verification; call…	Exclude current measurement practice (→ KS09). Code here when participants articulate…
FO07	Business model evolution	References evolving or aspirational business models — circular fashion, subscription, repair-an…	2	Circular business model aspirations; service-based or subscription fashion models; pl…	Exclude current business model practice. Code here when orientation is explicitly tow…
FO08	Collaborations/coalitions	Covers participants' visions for collaboration — industry coalitions, cross-sector partnerships…	2	Calls for industry collaboration beyond competition; cross-sector partnership aspirat…	Exclude current peer networks (→ CF06). Code here when participants envision structur…
FO09	Equity & inclusion commitments	Captures participants' commitments to equity, inclusion, and justice within sustainable fashion…	0	Fair trade and living wage commitments; supply chain justice; accessibility of sustai…	Exclude labor ethics as a current operational challenge (→ CF08). Code here when fram…
FO10	Vision statements	Records participants' overarching vision statements — articulations of what sustainable fashion…	**18**	Explicit vision language; mission statements; closing reflections on purpose and lega…	Exclude specific tactical or policy recommendations (→ FO02–FO09). Code here for broa…

Appendix T: List of 30 Focused Categories

Intermediate consolidation from ~120 provisional open codes to final three-domain hierarchy

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The following 30 focused categories represent the intermediate analytic layer between first-cycle open coding (~120 provisional codes; see Appendix N) and the final hierarchical structure (3 domains, 15 subthemes; see Table 3.2 and Appendix R). Categories were developed through iterative comparison and consolidation during focused coding, guided by conceptual coherence and recurrence across participants rather than frequency alone.

#	Focused Category	Thematic Domain	Definition / Scope
1	**Values-practice alignment**	Domain 1	Tension or coherence between held sustainability values and enacted practice; entry point into sustainability trajectory
2	**Reflective meaning-making**	Domain 1	Iterative reframing of professional purpose through sustained reflective engagement with experience
3	**Disorienting professional experiences**	Domain 1	Specific incidents of ethical disruption, waste shock, or cognitive disillusionment catalyzing sustainability shift
4	**Early value alignment and origins**	Domain 1	Pre-existing sustainability orientation rooted in familial, cultural, or professional background
5	**Later shifts and catalytic events**	Domain 1	Sustainability orientation emerging from identifiable disruption rather than pre-existing alignment
6	**Ongoing learning trajectories**	Domain 1	Cumulative professional learning through practice, experimentation, and community engagement over time
7	**Iterative recalibration of practice**	Domain 1	Recurring revision and adjustment of sustainability approach in response to experience and structural feedback

#	Focused Category	Thematic Domain	Definition / Scope
8	**Mentorship and educational catalysts**	Domain 1	Learning facilitated by mentors, educators, or academic environments at key trajectory moments
9	**Supply chain and material constraints**	Domain 2	Sourcing barriers, MOQ inaccessibility, supplier instability, and material scarcity as structural challenges
10	**Economic and cost pressures**	Domain 2	Margin compression, pricing tension, and the financial costs of ethical commitment
11	**Consumer dynamics**	Domain 2	Consumer apathy, education burden, greenwashing saturation, and B2B resistance as market-level challenges
12	**Institutional and policy absence**	Domain 2	Lack of regulatory, organizational, or policy scaffolding for sustainability at small-enterprise scale
13	**Adaptive workarounds**	Domain 2	Pragmatic strategies developed within structural constraints; substitution, improvisation, and compromise
14	**Bounded experimentation**	Domain 2	Small-scale testing and risk-managed innovation within constrained resource environments
15	**Scaling and growth tensions**	Domain 2	Ethical and operational challenges associated with enterprise growth decisions
16	**Network and community support**	Domain 2	Peer collaboration, mentorship, and community infrastructure as primary persistence mechanisms
17	**COVID-19 disruption and amplification**	Domain 2	Pandemic-related supply, market, and operational disruptions as amplifiers of existing structural constraints
18	**Conflict and geopolitical disruption**	Domain 2	Disruptions beyond COVID-19 (e.g., armed conflict) affecting sustainability practice in specific cases
19	**Identity formation and consolidation**	Domain 3	Development and stabilization of sustainability as core professional identity
20	**Technical and material competence**	Domain 3	Expertise in material properties, sourcing, circular design, and waste reduction techniques

#	Focused Category	Thematic Domain	Definition / Scope
21	**Operational and systems knowledge**	Domain 3	Competence in ethical costing, workflow redesign, supply chain management, and scaling decisions
22	**Relational and communicative competence**	Domain 3	Skills in supplier negotiation, stakeholder communication, consumer transparency, and knowledge sharing
23	**Reflective and ethical reasoning**	Domain 3	Capacity for ongoing ethical navigation, trade-off negotiation, and value prioritization in practice
24	**Bounded agency and constraint navigation**	Domain 3	Constrained but generative decision-making; sustainability within structural limits as professional capacity
25	**Practice stabilization and long-term commitment**	Domain 3	Sustained sustainability orientation across time, disruption, and market volatility
26	**Emotional and spiritual resilience**	Domain 3	Affective and meaning-based resources supporting long-term sustainability commitment
27	**Rejection of purity logic**	Domain 3	Strategic flexibility and pragmatic commitment as alternatives to all-or-nothing sustainability standards
28	**No end state orientation**	Domain 3	Sustainability described as an ongoing developmental process rather than a fixed achievement
29	**Teaching and knowledge transmission**	Domain 3	Capacity and commitment to transmit sustainability knowledge to students, peers, or public audiences
30	**Post-tenure stabilization**	Domain 3	Distinctive consolidation patterns among participants with 10+ years of sustained sustainability practice

Color coding: green = Domain 1 (Experiential Learning); blue = Domain 2 (Structural Constraints); orange = Domain 3 (Identity and Agency). Categories 1–8 map to Domain 1; 9–18 to Domain 2; 19–30 to Domain 3.

Note: The final fifteen subthemes (Table 3.2) were developed by consolidating related focused categories within each domain. Several categories contributed to the same subtheme; others were absorbed as conceptual subcategories.