A thesis submitted in partial fulfilment of the requirement of Staffordshire University for the degree of Doctor of Education.

# An Investigation of the Understanding of Reflective Practice by Educators in Higher Education Art and Design.

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# Abstract

This study examines the understanding and application of reflective practice among educators, such as academics and learner support academics and support staff, in the Design Department of a UK Higher Education Institution (HEI). Employing an interpretive, phenomenological ethno-case study approach and a multi-theoretical framework, it explores how reflective practice is perceived and integrated in design education, a field known for creative and tacit knowledge domains. Through A priori and A posteriori analysis, using interviews, visualisation tasks, and thematic analysis, the study investigates existing frameworks and lived experiences.

The findings identify five key themes: Creative Practice, Academic Practice, Practising Practice, Demonstrating Practice, and Expanded Practice. While reflective practice was linked to creativity and making, inconsistencies in its application across roles were noted. Donald Schön's reflection-in-and-on-action models were supported but not uniformly implemented, resulting in fragmented approaches. A notable gap was found in articulating tacit knowledge and addressing the mind-body dualism, often navigated through multimodal approaches like drawing to externalise implicit reflective processes.

A major contribution of this study is highlighting the continued relevance of Schön's theories in design education. Despite critiques suggesting they overlook socialisation, Schön's focus on studio culture supports collaborative learning environments, suggesting these criticisms may be misplaced. Additionally, Barad's concept of diffraction offers insights into nonlinear interactions in reflective practices. The use of visualisation tasks to collectively analyse a departmental understanding of reflective practice provides a distinctive and innovative view of collective insight and identifies areas for methodological development, moving beyond traditional individual data analysis. However, challenges with theoretical terminology for less experienced staff highlight the need for additional support.

The research advocates a unified approach in design education, incorporating multimodal methods and phygital practices. Emotional resilience and embodied reflection are emphasised as crucial for professional growth and innovation. Practical recommendations include consistent integration of reflective practice, clearer guidelines, and enhanced collaboration between academics and support staff.

# Dedication/Acknowledgements

This thesis is dedicated to my close family, running buddies, friends and colleagues, whose unwavering support, patience, and encouragement have been a constant source of strength throughout this journey. In particular, to my husband, Darren, my children, Betty and Stanley, and my cat, Cosmo, who has been a constant companion at my desk.

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Finally, I gratefully acknowledge the publishers, authors, and photographers who have kindly permitted the use of multiple images throughout this thesis. These images have been integral to exploring and investigating the understanding of reflective practice in art and design. Individual acknowledgments are provided in the captions accompanying each image, in recognition of this invaluable contribution.

# Table of Contents

## Chapter 2. Theoretical Frameworks 17

## Chapter 6. Conclusion 253

# Glossary and List of Figures and Tables

# Glossary

| | |
|---|---|
| **A&D** | Art and Design. |
| **Atelier** | A French term for a workshop or studio, especially used in the context of art and design education, where students work together under the guidance of a tutor. |
| **Connoisseurship** | Refers to expert knowledge or refined judgment in art and design, gained through practice and experience. It often involves a tacit understanding of quality and technique. |
| **Crit (Critique)** | A common practice in design education where students present their work to peers and tutors for feedback, fostering critical evaluation, improvement, and professional growth. |
| **design (lowercase)** | Refers to the broader discipline of design. |
| **Design (capitalised)** | Specifically refers to the Design department and associated elements. |
| **Embodied Knowledge** | Knowledge gained through physical activity or hands-on experience, particularly in creative disciplines where making or crafting is central to the learning process. |
| **Epistemology** | The theory of knowledge, particularly how knowledge is developed and understood. In reflective practice, epistemological approaches help understand how designers form and refine their understanding through experience and reflection. |
| **HE** | Higher Education. |
| **Institution** | May be used interchangeably with 'university' or 'institution'. |
| **L&T** | Learning and Teaching. |
| **Landscape** | The horizontal orientation of an image |
| **Multimodal** | Refers to using multiple forms of communication or expression, such as text, visuals, digital media, and verbal dialogue, in both reflective practice and design education. |
| **Phygital** | A term combining physical and digital, referring to hybrid methodologies that blend traditional physical materials with digital technologies in the design process. |
| **Portrait** | Portrait |
| **Praxis** | The application of theory into practice. In design education, it refers to the integration of theoretical knowledge into practical design projects, promoting a continuous cycle of learning, doing, and reflecting. |
| **Researcher** | In this thesis, the term 'researcher' is used in the third person to maintain consistency and align with the study's focus on educators' understanding of reflective practice, rather than the researcher's personal reflections. However, a reflexive stance is acknowledged and discussed where relevant, particularly in relation to researcher positionality and the interpretative nature of the study. |
| **Signature Pedagogies** | Teaching methods or approaches that are characteristic and essential to a particular field. In Art and Design, these often include studio-based learning, critiquing (crits), and project-based work, focusing on practical and hands-on learning. |
| **Tacit Practice** | Refers to the practical, often unspoken, aspects of knowledge in design that are difficult to articulate but are understood through experience and intuition. |
| **University** | May be used interchangeably with 'institution'. |
| **Vertical Learning** | A method of teaching where students at different stages of post-compulsory education learn together in a shared environment, often applied in studio settings. |

# List of Figures and Tables | Figures

## Figures continued

# Figures continued

# Figures continued

# Tables

# Chapter 1.
# Introduction

## 1.1  Background of the Study

This chapter provides an in-depth exploration of the background of the study, focusing on the importance and evolving nature of reflective practice in higher education (HE) art and design (A&D). The historical context and key theoretical frameworks are examined, and the study's goal to clarify the understanding of reflective practice is outlined, providing a clear structure to the investigation. By highlighting initial gaps in the literature, foundational insights are identified that are further examined throughout the thesis, supporting aims to enhance teaching methodologies and promote professional growth in HE A&D through a deeper understanding of reflective practice.

### 1.1.1  Contextualisation

Reflective practice is a critical component of HE, particularly within creative disciplines such as A&D (Ampartzaki and Kalogiannakis, 2023; Design Council, 2018; Doren and Millington, 2019; Holley, 2017; Orr and Shreeve, 2018; Ryan, 2014; Walker, 2004). Reflective practice aims to foster critical and creative thinking through continuous self-evaluation and iterative improvement (Beckett-McInroy and Baba, 2022; Brookfield, 1995, 2013, 2017; Dewey, 1933, 1938; Schön, 1983). While its value in supporting personal, educational, and professional growth is well-established (Bassot, 2024; Bolton and Delderfield, 2014; Moon, 2004;), the application and interpretation of reflective practice varies across many fields (Kinsella, 2009; Finlayson, 2015; Marshall, 2019) and is less evident within A&D education. This variability has led to diverse and sometimes conflicting understandings among academics and practitioners, contributing to confusion and a fragmented implementation of reflective practices (Marshall, 2019). Despite the recognised importance, the varying interpretations of reflective practice in HE have resulted in challenges for both educators and students, including A&D practice (Ali, 2020; Bruno and Dell'Aversana, 2019; James, 2007). This study investigates this landscape, aiming to clarify the role and implementation of reflective practice in this field. By examining the understandings and applications of reflective practice, this research seeks to provide a coherent framework that can enhance its effectiveness and consistency within HE A&D.

### 1.1.2  Historical Perspective

Reflective practice, as initially conceptualised by Dewey (1933), emphasises active, persistent, and careful consideration of beliefs or knowledge. Schön (1983) expanded this notion by linking reflection to creative processes in design,

specifically the architectural studio, which is comparable to design practice (Sims and Shreeve, 2012). Schön (1987) notes the difficulties of this practice whereby the relationship between the tutor and student are complicated and paradoxical. Tutors are required to guide students through learning new skills they do not yet comprehend. Students must start designing without fully understanding the process, as it is only through practice that they can learn. Explanations made upfront by the tutor will not necessarily make sense to the students. Tutors must encourage students to engage with what they do not know, to gain the experience needed to understand what they need to learn. While Schön initially focused on architectural studio practice (Webster, 2008), over time reflective practice has been integrated into various disciplines' professional practices as a formal requirement to support practice development and governance, such as healthcare (HCPC, 2024). However, application within A&D remains complex due to the multifaceted and intrinsic nature of creative work (Bruno and Dell'Aversana, 2018; James, 2007; Lee-Smith, 2019). Additionally, the lack of regulatory requirements results in reflective practice not being endorsed in creative professional practice (CIISA, 2023).

## 1.1.2.1   The Influence of Bauhaus and Experiential Learning

To deepen the understanding of the reflective practice within A&D, it is useful to refer to the origins of studio practice, deeply rooted in the Bauhaus movement, that have shaped modern design education initiated by the Bauhaus school of art, design and architecture (Fiedler and Feieraband, 1999). This art movement significantly influenced contemporary A&D education by introducing and emphasising hands-on, experiential learning. This learning by exploring relationships between form, function, and materials through practical engagement were essential Bauhaus principles. This approach supports creative skill development by actively engaging in the creative processes, which are perpetuated in contemporary A&D education (Sims and Shreeve, 2012; 2017). The Bauhaus' ideology is deeply intertwined with Dewey's (1933) principles of experiential learning and the integration of theory and practice (Ellert, 1972). Schön (1983, p.14) built upon these principles, which were later critiqued by Kinsella (2009), who argued that while remaining relevant, there was a need for further consideration of 'the philosophical underpinnings and epistemological assumption.' The Bauhaus art movement advocated for an educational model that combined creative processes with critical reflection, aligning with Dewey's ideas on active learning and the development of professional identity through practice (Gilsanz et al., 2020). This connection between creative practice, experiential learning and reflective practice underscores the historical and theoretical foundations that continue to shape the application of reflective practice in modern design education (Chen and He, 2013; Coxon, 2018). Furthermore, the understanding of reflective practice has evolved significantly, with recent research

underscoring the ongoing importance of tailored applications to enhance critical thinking, problem-solving abilities, and professional identity development in design education (Brosens et al., 2022), such as using digital technologies to promote engagement (Fleischmann, 2024).

## 1.1.2.2 Current Gaps in Reflective Practice Research and Implications for Design Education

The Bauhaus sought to integrate the creative disciplines of A&D(Fielder and Feierabend, 1999). This integration is reflected in the title of the thesis and continues to be relevant in literature on creative education. Common themes include project-based learning, assessment methodologies, and 'stickiness', a term used to describe the complexity of curriculum design, which includes elements like messiness, troublesome knowledge, labelled values, elasticity, and embodiment (Orr and Shreeve, 2017; Sims and Shreeve, 2012). However, while A&D share some commonalities, they also have distinct characteristics. Design education often emphasises functionality, collaboration, and solving real-world problems, whereas art education focuses on individual expression, aesthetics, and creativity without a requirement for practical utility (Zwirn and Zande, 2017).

Given the existing confusion around reflective practice in these fields, this study focuses specifically on design education, which is often taught separately from art in UK HE (Northumbria University, 2024; University of Southampton, 2024). By examining current perceptions of reflective practice in HE, this research aims to enhance engagement with reflective practice in design education, improving its application across the broader context of creative disciplines. As Ashwin (2019) notes in his review of Orr and Shreeve's (2017) book, *Art and Design Pedagogy in Higher Education*, the themes explored in reflective practice are applicable across various disciplines. Thus, while this research is focused on design education, the findings may also be transferable to art education and other subjects.

Notably, throughout the Introduction and the thesis document, repetition of key concepts relating to reflective practice are acknowledged, particularly regarding importance, inconsistent application, and the evolving understanding within HE A&D. This repetition is reflective of the interconnected nature of the study's themes and reinforces the significance of these concepts across different sections of the research. Similarly, in Chapter 5, Analysis and Discussion, distinct themes will be explored that have overlaps and converges, culminating in the theme of 'expanded practice'. This final theme acts as an independent concept and as a comprehensive grounding theme that encapsulates and unifies the earlier discussions. This structure is intentional, mirroring the iterative and reflective nature of the subject

matter, whereby overlapping ideas and themes contribute to a deeper, more cohesive understanding of reflective practice within the discipline of design.

Despite ongoing evolution, reflective practice remains less researched in design education than other fields and lacks a unified framework. This study seeks to address this gap by exploring the current understanding and implementation in design education.

## 1.2 Statement of the Problem

### 1.2.1 Research Problem

Reflective practice is recognised as an essential tool for professional development and effective learning across various disciplines (Ghaye and Ghaye, 1998; Moon, 2006; Schön, 1983). Most recently within a systematic review of reflective practice across many professional disciplines, although omitting A&D, Marshall (2019) argued that these definitions can cause confusion and are often inconsistently applied. These discrepancies can hinder the development of a coherent pedagogical approach, as varying interpretations may result in different expectations and outcomes (Finlayson, 2015; Kinsella, 2009). This research addresses the need for a clearer and more consistent understanding of reflective practice in general, and more specifically focuses on design education, aiming to increase engagement and improve creative and educational practice and communication (Ali, 2020; James, 2007; Walker, 2004).

### 1.2.2 Gap in the Literature

While the significance of reflective practice is well-documented, there is a noticeable gap in application within design disciplines, which is more extensively explored within empirical studies identified in Chapter 3, Literature Review. Existing studies primarily focus on reflective practice in fields such as healthcare and business (Anderson et al., 2007; Birds, 2014; Dekker et al., 2024; Kenny, 2017; Nicol and Dosser, 2016; Thompson and Thompson, 2023), leading to the specific challenge and needs of design educators being overlooked. The distinctive nature of design, which emphasises creativity, experiential learning, and subjective interpretation (Ball and Christensen, 2019; Julier, 2013; Lohiser and Puccino, 2020; Stevenson, 2022), requires a tailored approach to reflective practice, which existing research does not fully address (Ali, 2020; Barrett and Bolt, 2014; James, 2007). This study aims to resolve this gap by exploring academics' understandings and engagement with reflective practice through teaching and support practices,

contributing to a more nuanced understanding that aligns with the specific demands of the creative industries (Design Council, 2018; Holley, 2017). Creative pedagogy commonly relies on tacit knowledge and an awareness of dogma, which educators and practitioners use to generate innovative solutions to real-world constraints (Cross, 1982; Lee-Smith, 2019; Sims and **Shreeve**, 2012). This is important because creative pedagogy's use of tacit knowledge and awareness of norms enables design educators and practitioners to generate innovative solutions to real-world challenges. This study aims to bridge these gaps, offering insights to refine reflective practice in design education and enhance teaching effectiveness in the creative disciplines.

## 1.3    Purpose of the Study

The purpose of this study is to investigate the understanding of reflective practice by academics within HE A&D, primarily relating to Learning and Teaching (L&T) contexts. Reflective practice is widely acknowledged as crucial for fostering self-awareness, professional growth, critical thinking, and creativity in educational contexts (Schön, 1983). However, the application of reflective practice in A&D education is often inconsistent and less researched compared to other fields, such as occupational therapy (OT), both of which have been studied by the researcher. The differences in reflective practices employed across these contexts sparked the researcher's interest in investigating the understanding of reflective practice in A&D more deeply, given its less prevalent use in this field. This study provides a nuanced exploration of reflective practice within A&D, identifying how it is perceived and utilised by educators, with the goal of enhancing teaching methodologies and improving student outcomes in these creative disciplines.

The researcher's engagement with reflective practice emerged from academic and professional experiences across design education and OT, where reflection functions in distinct ways. As a textile student and freelance artist, reflective practice was an implicit act, an embedded process occurring through sketchbooking, group critiques, and material exploration (Bartholomew and Rutherford, 2015). This contrasted with the formulaic approach encountered in OT education (HCPC, 2021), where written guided prompts aimed to facilitate reflection but often felt prescriptive and disconnected from the actual event. These disciplinary differences raised questions about how reflective practice is understood and applied in A&D, particularly regarding the often-tacit nature in creative disciplines (Culshaw, 2023; Leigh, 2016). While reflection in design education commonly happens informally, its implicit nature makes it difficult to articulate and assess, leading to inconsistencies in teaching and evaluation. As an educator in HE A&D, the researcher encountered challenges in helping students and staff engage with reflection in meaningful

and authentic ways, particularly when distinguishing between 'critical reflection' and 'reflective practice'. This study was shaped by these experiences, aiming to illuminate embedded or unconscious reflective practices in A&D and promote a more structured yet flexible approach that aligns with the realities of creative practice. Drawing on leadership experience within a cross-disciplinary design unit, the research considers how diverse tools, materials, and processes can enhance engagement with reflection beyond traditional written formats. By addressing these complexities, the study sought to support a more effective integration of reflective practice within A&D curricula, benefiting both educators and students while extending its value beyond academia into professional creative industries.

## 1.4    Research Questions and Objectives

The overarching aim of this research is designed to understand how staff working within design education conceptualise and apply reflective practice. The research questions and corresponding objectives are as follows:

**Research Question 1:** *How do staff in HE A&D understand the concept of reflective practice?*

> **Objective:** To explore how HE A&D educators understand and conceptualise reflective practice.

**Research Question 2:** *What are the perceived purposes of reflective practice in the context of A&D education?*

> **Objective:** To identify the perceived purposes and goals of reflective practice in HE A&D.

**Research Question 3:** *How do staff perceive reflective practice is taught and integrated into the curricula?*

> **Objective:** To examine how reflective practice is taught, facilitated, and integrated into the curricula in HE A&D.

**Research Question 4:** *Who do staff perceive as responsible for teaching, facilitating, and assessing reflective practice within A&D disciplines?*

> **Objective:** To investigate how staff perceive the distribution of responsibility for teaching, facilitating, and assessing reflective practice across different roles in the department.

To address these research questions, the study adopts a qualitative, phenomenological approach. Content analysis, semi-structured interviews and thematic analysis are employed to explore staff perceptions of reflective practice in HE A&D, providing insights into the challenges and opportunities for integrating reflective practice in the curricula.

## 1.5     Significance of the Study

### 1.5.1     Contribution to Knowledge

This research significantly contributes to the existing body of knowledge by offering a nuanced understanding of reflective practice within HE A&D. By investigating how academics working in this context understand and implement reflective practice, this study provides valuable insights into the distinctive challenges and opportunities within creative disciplines. The research highlights the importance of contextualising reflective practice to align with specific pedagogies inherent to A&D (Sims and Shreeve, 2012), bridging the gap between these disciplines and other fields that employ more standardised approaches to professional development (Marshall, 2019).

### 1.5.2     Impact on Practice

The findings of this study have the potential to significantly influence educational practices within HE A&D. It is hoped that this study will provide insights into the structure and approaches to reflective practice in A&D education to enhance the effectiveness of L&T. This is essential for developing professional competencies that are critical for success in the HE (HEFCE, 2024) and creative and professional practices (CIISA, 2023; Design Council, 2018), wherein reflective practice plays a key role in fostering innovation and critical thinking (Dumitru, 2019; Penkauskienė et al., 2019; Shreeve and Smith, 2012).

## 1.6     The Theoretical Framework

Building on the contextual and historical insights established, this section introduces the theoretical frameworks that have shaped the development and application of reflective practice. The study adopts an interpretivist ontology and epistemology, viewing reality and acknowledging it as socially constructed through

**Educators**
(dependent variable)

**Experience**
(moderating & mediating
variables)

**Reflective Practice**
(independent variable)

**Art and Design**
(control variable)
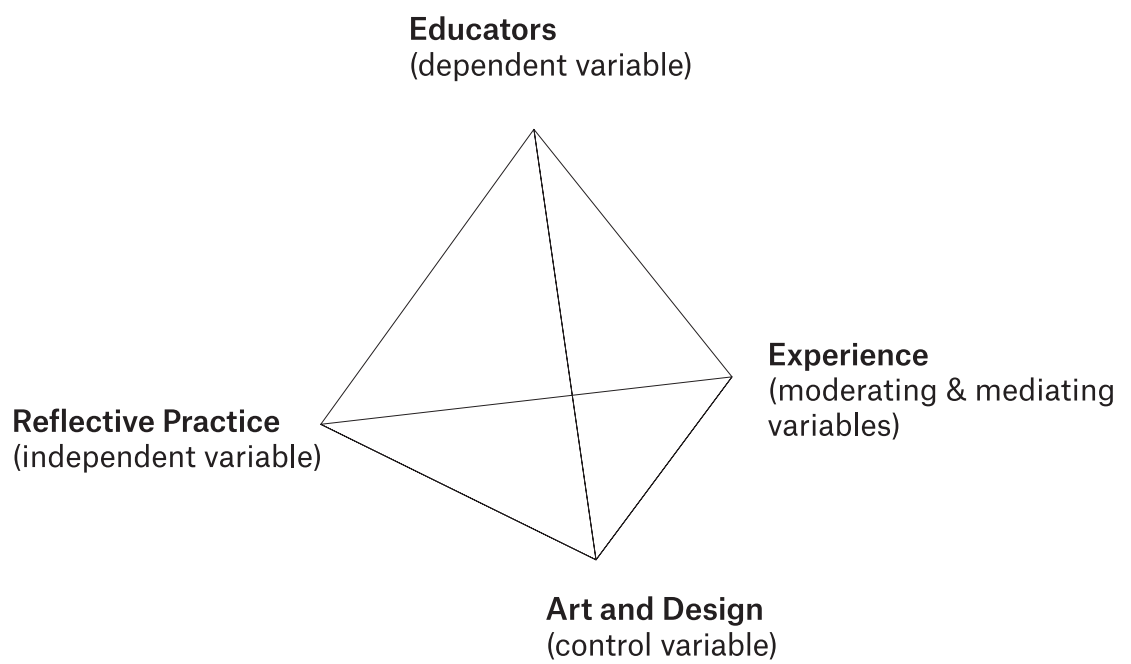
Figure 1.        The Conceptual Framework.

individuals' subjective experiences, informed by cultural and power dynamics (Bourdieu, 1991; Foucault, 1977). Reflective practice and design education align with this perspective, emphasising multiple interpretations are influenced by social structures and institutional contexts. Reflexivity is key to this understanding, acknowledging the researcher's role in shaping the interpretation of data. Chapter 2, Theoretical Frameworks will expand on these guiding theories, using an interpretivist and phenomenological approach to critically examine how reflective practice is understood and applied broadly and in design education. Furthermore, Bourdieu's (1991) social structures and Foucault's (1977) analysis of power dynamics are relevant to consider within the multi-layered framework of design education. This analysis will synthesise key insights and outline the implications for future professional practice. Schön's (1983) epistemologies of reflective practice serve as the foundation for this research and will be evaluated in terms of continuing relevance to contemporary design education.

## 1.7    The Conceptual Framework

To provide a structured approach to investigating the understanding of reflective practice, this section presents a conceptual framework that outlines the key variables and their relationships. This ensures rigour and supporting reasoning throughout the research process (Ravitch and Riggan, 2012). The framework explores the relationships between four key variables that influence the understanding of reflective practice by academics in HE A&D (Figure 1).

In this conceptual framework for investigating the understanding of reflective practice by academics in HE A&D, 'reflective practice' is the *independent variable*. It represents the central phenomenon being studied: the process of self-assessment and improvement in professional practice among design academics. The 'academics' understanding' and application of reflective practice in their university roles and professional development is the *dependent variable*, which is influenced by the central phenomenon of reflective practice. 'Design', as design education and the department, acts as the *control variable* because this entity represents the broad external/professional context of design and the institutional setting that may affect the relationship between reflective practice and the academics (the dependent variable). Factors such as departmental culture, policies, and curriculum design are accounted for in order to isolate the effect of reflective practice on academic outcomes. 'Experience,' along with factors such as institutional influence and support for reflective practice, serves as a *moderating variable* that affects the strength and direction of the relationship between reflective practice and academics' understanding. For instance, more experienced educators or those receiving greater institutional support might engage more deeply in reflective practice, potentially

gaining different insights compared to those with less experience or support. Thus, experience also functions as a *mediating variable*, helping explain how reflective practice leads to certain outcomes, such as improved teaching methodologies or professional growth. This suggests that reflective practice may be more effective in fostering growth for educators with greater experience, as they might be better equipped to apply reflective insights to their teaching and professional practices. By outlining these variables, the conceptual framework clarifies the research problem, focusing on the complex dynamics between reflective practice and the factors influencing its application within the context of design education.

## 1.8 Defining Key Terms

### 1.8.1 Understanding

In this study, 'understanding' requires defining due to repeated emphasis on this term throughout the thesis. Understanding signifies a deep, critical engagement with reflective practice and involves analysing and interpreting experiences to uncover deeper meanings. As Saldana (2011) notes, in qualitative research understanding goes beyond data analysis to reveal insightful revelations. In design education, this suggests engaging with conceptual and practical aspects, such as analysing the interplay between social, environmental, and design contexts (Schiif et al., 2023). Walker (2004) highlights that while artmaking defies formulaic approaches, reflective interventions guide students toward deeper engagement, facilitating inventive practices like risk-taking. This aligns with phenomenological approaches, such as Husserl's emphasis on bracketing assumptions to gain deeper insights (Kockelmans, 1994; Murphy, 2022).

Other studies, like Chambers' (2003) educational action research, have highlighted reflective practice as a way to achieve a deeper understanding of one's experiences by engaging in critical reflection and developing self-awareness. Nicol and Dosser (2016) and Wrigglesworth (2016) emphasise that reflective practice is crucial for professional growth, particularly within design education. They argued that through deliberate reflection, practitioners can gain a more profound understanding of their practices, enabling continuous learning and development. Collectively, these works suggest that reflective practice involves a conscious effort to interpret and learn from experiences, thereby deepening personal understanding and enhancing professional competencies.

In contrast, 'perception' refers to the initial interpretation of sensory information, explored by Merleau-Ponty and Landes (2012) as an embodied process of engaging with the world. While perception forms the basis of experience, it remains at the

surface level. Perception does not necessarily engage with the deeper process of critically analysing and integrating impressions into broader conceptual frameworks. By focusing on 'understanding', this study endorses the iterative process of engaging with reflective practice. Understanding aligns with Kant's idea of connecting experiences to broader frameworks (Visscher-Voerman and Procee, 2007) and encourages nuanced awareness. This approach aims to enhance reflective practice in design education, promoting greater learning and professional growth.

## 1.8.2   Reflective Practice

Reflective practice is a process of self-examination and critical thinking aimed at evaluating personal, educational, and professional practices. Originally conceptualised by Schön (1983, 1987) as reflection-in-action and reflection-on-action, this theory emphasises the iterative process of thinking and doing, where professionals actively reflect during and after their actions to examine their practice. Over time, contemporary interpretations have expanded this concept. Finlayson(2015) notes that reflective practice is flexible, tailored to individual needs, and has increasingly emphasised formal, documented models to guide future learning and action. Similarly, Marshall (2019) concludes from a systematic review that reflection is a cognitive process of examining and synthesising ideas to generate new insights through ongoing cycles of re-evaluation. This suggests that reflective practice now encompasses a broader range of cognitive and emotional processes, making it a dynamic and evolving practice rather than a static concept. Understanding this evolution is crucial for applying reflective practice effectively within the specific contexts of design education.

## 1.8.3   Art and Design in Higher Education

As discussed earlier, within HE A&D there are a range of creative disciplines spanning fine art, design, and media (Northumbria University, 2024; University of Southampton, 2024). These subjects collectively focus on creativity, innovation, and the integration of various artistic expressions (Tovey, 2015; Wilson and Zamberlan, 2017). Within this taxonomy there are also differences. Design practice emphasises a collective learning environment, encouraging practical experimentation and critical examination of diverse and disruptive concepts such as current crises and 'ugly' futures (Orr and Shreeve, 2017; Lohiser and Pucciono, 2019; Nuutinen et al., 2017), which are necessary to support design practitioner professionalism (Lohiser and Puccino, 2019), whereas art disciplines are more focused on the 'aesthetic

pedagogies' (Long et al. 2012). Although, notably, this differentiation is made by nurse educators, whereas Sims and Shreeve (2012) when discussing A&D signature pedagogies do not make this differentiation. This acknowledgement/acknowledgement of disciplinary difference is perhaps best noted by external observers. Recognising the particular demands of each discipline within A&D highlights the crucial role that educators play in tailoring reflective practices to foster student growth and professional development.

Educators play a crucial role in fostering reflective practice by navigating the complex interplay of individual agency, context, and experience (Shreeve and Smith, 2012). By engaging in reflective practice themselves, educators can refine their teaching strategies to support students' growth (Biggs et al., 2022; Whitchurch and Gordon, 2010). Reflective practice has become central to HE, particularly in advocating progression, employability, scholarship, and professionalism for students and academics (Platt, 2014; Smith and Walker, 2024; Wharton, 2017).

In the context of UK HE, the Dearing Report (1997) and the Quality Assurance Agency (QAA, 2019), as both government and non-governmental agencies, emphasise experiential learning and Personal Development Planning (PDP), which support the embedding of reflective practice in HE curricula (HEA, 2013). More recently, the Augar Report (2019), which reviewed post-18 education and funding in England, underscored the ongoing need for equitable access to HE, further facilitating the requirement for academics to effectively foster reflective practice in students to enhance their professional competencies.

These education mandates highlight the necessity for a consistent understanding of reflective practice among educators to enhance learning experiences and prepare students for professional success (McLain, 2022). However, as Smith and Walker (2024) argued, the advancement of teaching-focused academics is hindered by the lack of a clear and consistent framework for scholarship in career progression. This ambiguity creates barriers for those in L&T roles and limits the full integration of their scholarship into academic culture. Addressing these challenges requires institutions to establish a more precise understanding of this term, both theoretically and practically. They must also offer structured development opportunities to ensure that reflective practice is not solely an individual exercise but a component of a supportive professional environment. This comprehensive approach would support the professional growth of teaching-focused academics and enrich the educational experiences they provide.

## 1.9      Delimitations and Limitations

### 1.9.1      Scope of the Study

This study focuses on exploring how academics within HE A&D understand and implement reflective practice. As noted, reflective practice is recognised as a critical tool for fostering professional growth and effective learning, particularly in creative fields where subjective interpretation and creativity are central (Schön, 1983; Barrett and Bolt, 2014). While this research focuses on design education, offering valuable discipline-specific insights, the findings may not be directly applicable to other academic fields that approach reflective practice more systematically, such as scientific disciplines and clinical reasoning methods (Mattingly, 1991).

The decision to focus on design education over the broader A&D spectrum, and on academic staff rather than including students, is intentional. Given the vast scope of literature on reflective and creative practices, ranging from Dewey's (1933) early concepts of reflection to Marshall's (2019) systematic review, and from the founding principles of the Bauhaus developed Walter Gropius in 1919 (Fiedler and Feierabend, 1999) to McLain's (2022) exploration of signature pedagogies in design and technologically, it is necessary to set boundaries. These delimitations help manage the complexity of the thesis topic, ensuring a more focused and in-depth exploration of reflective practice within the context of design education.

### 1.9.2      Study Limitations

This study is limited to design disciplines within a single university department in the broader context of HE A&D. Thus, the findings will be localised and may not fully capture the complexities and nuances of reflective practice in other fields, such as healthcare, which often employ more rigorous models of reflective and reasoned thinking (Boshuizen and Schmidt, 2008; Mattingly, 1991). The multi-layered qualitative, phenomenological, and ethno-case study approach adopted in this study aims to provide rich, in-depth and context-specific insights into the experiences of academics, including support staff. However, this focus on individual perceptions may limit generalisability of the findings (Creswell, 2018).

Additionally, the idiosyncratic nature of A&D, often referred to as 'inter-subjectivities' (Shay, 2005; Orr and Shreeve, 2019), suggests that these

understandings are also deeply context-dependent and may not readily translate to other design departments or more structured and regulated disciplines. Despite this, Ashwin's (2019) critique of Orr and Shreeve (2019) offers a counter-claim, suggesting that concepts such as the complexity of curriculum design, student engagement, and the limitations of linear curriculum models are relevant to a wider range of HE disciplines beyond creative arts. Therefore, the study's exploration of reflective practice in design education may offer valuable insights and approaches that could potentially be adapted and applied to broader educational contexts within HE.

## 1.10    Organisation of the Thesis

**Chapter 1: Introduction**
- Overview of the Research
- Background, Problem Statement, Purpose Significance, and Research Questions

**Chapter 2: Theoretical Frameworks
      For Reflective Practice**
- Outlines and Debates, Various Frameworks and Epistemologies Informing Reflective Practice

**Chapter 3: Literature Review**
- Analysis of Empirical Literaature on Reflective Practice, with a focus on A&D

**Chapter 4: Methodology**
- Description of the Research Design, Data Collection, and Analysis Methods

**Chapter 5: Findings and Discussion**
- Presentation of Research Findings
- Interpretation of Findings in Relation to Research Questions and Theoretical Framework

**Chapter 6: Conclusion**
- Summary of the Research
- Discussion of Implications
- Suggestions for Further Research

Figure 2.       Summary of the Chapters.

# Chapter 2.
# Theoretical
# Frameworks

In this thesis the structure is organised as detailed. Chapter 1, Introduction, presents an overview of the research, including the background, problem statement, purpose, significance, and research questions. Chapter 2, Theoretical Frameworks, outlines and debates various frameworks and epistemologies that inform reflective practice. Chapter 3, Literature review, analyses empirical literature on reflective practice, particularly in the context of A&D. Chapter 4, Methodology, describes the research design, data collection, and analysis methods used in the study. Chapter 5, Findings and Discussion, presents the research findings, including key themes and insights from the data, and interprets these findings in relation to the research questions and theoretical framework. Finally, Chapter 6, Conclusion, summarises the research, discusses the implications, and suggests areas for further research. See Figure 2 for clarity:

## 1.11    Summary of the Introduction

In summary, this introduction sets the stage for a comprehensive exploration of reflective practice within HE A&D. It outlines the background, problem statement, purpose, significance, research questions, and theoretical and conceptual frameworks. The overarching aim of this research is to contribute to a clearer and more consistent understanding of reflective practice in design education, thereby enhancing pedagogical practices and professional development within these creative disciplines. The next chapter, Theoretical Frameworks, provides an overview of reflective practice theories, establishing the context for understanding how these concepts are perceived and interpreted within the study's educational setting.

This chapter critically examines the theoretical frameworks underpinning reflective practice, specifically in the context of design education. Reflective practice is a multifaceted concept that serves as both a theory and a method, deeply influencing professional practice within its associated disciplines. Understanding this concept requires a comprehensive exploration of its theoretical foundations, including distinctions between various theories and models.

The chapter begins by exploring foundational theories and models that form the basis of reflective practice, emphasising their importance for learning and professional development. The role of design in reflective practice is considered, highlighting the critical contribution to societal change and innovation, while addressing the under-representation of design in reflective practice discourses. Definitions of reflective practice are examined alongside the contributions of seminal theorists, John Dewey (1933) and Donald Schön (1983), to identify their relevance to design education. Subsequently, the chapter delves into the epistemic prevalence of key themes in reflective practice, introducing the concepts of diffraction and reflexivity to explore more nuanced understandings. The chapter concludes by synthesising key insights and outlining the implications for the study.

## 2.1.    Theories and Reflective Practice

Reflective practice theories offer broad frameworks for understanding experiences and actions, emphasising their impact on learning and professional development (Schön, 1983; Gibbs, 1998; Marshall, 2019). Models serve as bridges, translating these theories into practical tools, while methods are the specific techniques derived from the models that guide direct implementation (Fried, 2020). Reflective practice can be viewed as a theorisation of practice, such as design, where knowledge, experience, and learning are intricately interwoven (Bourdieu, 1977; Boud, Keogh, and Walker, 2013). Moon (2013) extends this view by identifying different levels of reflection, from surface to deep, showing how reflective practice theory serves to enhance practice.

Collectively, these paradigms, the interdependence between theory and practice, progression from theory to action, and the depth of reflection, highlight the mutual reinforcement between theory and (design) practice within reflective practice. This interdependence is fundamental to design education, given its inherent and ambiguous methodologies (Orr and Shreeve, 2017), supporting the focus to investigate this complex relationship in the current investigation. Together, these paradigms provide a vital framework for exploring reflective practice in design education.

## 2.2    The Role of Design in Reflective Practice

Theories of reflective practice offer diverse concepts and philosophical stances, often with the assumption that reflective practice is universally understood and equally applied across HE (Jay and Johnson, 2002; Marshall, 2019; White et al., 2006). However, this ubiquity warrants closer examination to more effectively comprehend the applicability to design practice. Building on the historical influences, complexities and nuances of design education outlined throughout the introduction, this section enriches the thesis narrative by providing philosophical grounding and arguing for the potential formalisation and integration of reflective practice theories more explicitly into design education.

Design theory and practice have long been central to shaping societal change and innovation, influencing all aspects of society, from the signs that guide travel and transportation to the clothing that protects the body and expresses individual identity (Norman, 2013). Despite this ubiquity, reflective practice, which is well-established in professions like healthcare and teacher training (Esterhuizen, 2023; Ghaye, 2011; Zwozdiak-Myers,2023), is not explicitly formalised within design practice, as previously highlighted. Likewise, when expounding global perspectives and creative reflective practice, contributing authors promote coaching and management over creative theories (Beckett-McInroy and Baba, 2022). However, the very nature of design inherently involves reflective processes that are underpinned by theory. For example, academics support students to refine their designs, from initial ideas to final product, thus engaging in reflective practice throughout multiple processes of decision-making. Without a strong understanding of this method, academics may struggle to teach it effectively, even though reflection is integral to design (Schoormann et al, 2023). Improving academics' understanding of reflective practice can enable them to better articulate and equip students with the reflective and critical skills necessary for success in the creative industries, which is an often overlooked yet crucial area for the development of reflective and professional practice theories in design education. By investigating this complexity, this study makes a valuable contribution to the fields of design education and reflective practice.

Thus, reflective practice in creative practice is widespread but often unacknowledged over the prioritisation of the creative aspect, from William Morris's late 19th-century advocacy for integrating design into routines of life to improve societal well-being (Midal, 2023), to Richard Buchanan's concept of 'wicked problems,' which positions design as a crucial tool for solving complex social issues (Margolin, 1989; Margolin and Buchanan, 1995). Design has thus been consistently recognised as essential for addressing a wide range of societal challenges. Victor Papanek's seminal work *Design for the Real World* (1992) further emphasises the ethical responsibility of designers to address real-world problems and prioritise human needs. Ezio Manzini's (2015) exploration of design as a catalyst for social

innovation and sustainability continues this legacy, highlighting design's enduring impact on societal transformation, all of which require an understanding of reflective practice to support deep thinking for improvement and evolution.

Gestalt theory, originated by Fritz Peris, posits that the whole is greater than the sum of its parts (Behrens, 1998; O'Leary and Knopek, 1992), provides a valuable framework for understanding how design theories can collectively create significant impact. This holistic perspective highlights the interconnectedness of design elements, suggesting that integrating design with reflective practice theories from other disciplines, such as sociology, psychology, health and well-being, can enhance learning and transformation within design education. By doing so, design links to established reflection theories, such as Schön's reflection-in-action (1983), which emphasises learning through doing, and Kolb's Experiential Learning Cycle (1984), whereby designers learn through experience, reflection, and adaptation throughout the creative process. Although design lacks a formalised framework for reflective practice, its inherent methodology of thinking, creating, and problem-solving naturally foster reflection (Schoormann et al., 2023). This intrinsic reflection positions design to integrate existing reflective practice theories and to innovate, potentially developing a framework aligned with creative practice. This adaptability emphasises design's potential role to contribute a distinct and valuable perspective to broader discourses on reflective practice in HE, affirming a critical role in societal transformation.

## 2.3    Under-representation of Design in Reflective Practice Discourse

Despite this rich theoretical foundation, design's pivotal role often remains under-represented in the discourse on reflective practice. To ascertain the prevalence of design within reflective practice, it is necessary to examine systematic reviews of reflective practice across various contexts, to assist determining how design is incorporated or unnoticed within these frameworks, providing a clearer understanding of its role in shaping reflective practices in design education and beyond.

Three key sources provide significant insight into long-term perceptions of reflective practice, despite not specifically addressing design. These sources include Kinsella's (2009) analysis of Schön's (1983, 1987, 1992) epistemology of reflective practice, which has strong connections to studio-based learning as a central component of design education, and highlight this as an influential source for the research. Finlayson (2015) considers both theories and models, which act as the practical application of theory and closely aligns with design education's emphasis on experiential learning. Finally, Marshall's (2019) systematic review offers a more

recent comprehensive insight of reflective practice across various professional contexts,which is useful for gaining a broader understanding of reflective practice and identifying possible sources that are application to design education. Together, these evaluations, primarily by British researchers, span a decade, with Kinsella offering a broader perspective from Canada.

Notably, art and design (A&D) is omitted as a key practice or theory within the selected systematic reviews, despite the prominence and continued relevance of Schön's work (1983, 1987) within A&D HE and creative professional practices (Candy, 2020; Doren and Millington, 2019; James, 2007; Kirk and Pitches, 2013; Webster, 2008). Before delving into the theoretical foundations of reflective practice identified in the three reviews, it is useful to summarise the initial similarities across these sources. Kinsella (2009) and Finlayson (2015) emphasise developing leadership potential, while Marshall (2019) focuses on enhancing documentation of reflection for professional accreditation. Together these intentions align with the thesis objectives (Research Questions and Objectives, Section 1.4), which seek to advance professionalism and reflective practice within design. Given the critical role of design and its under-representation in reflective practice discourse, it is essential to further explore the underlying definitions of reflective practice. The following section delves into these classifications, laying the groundwork for understanding how reflective practice is conceptualised and applied within design.

## 2.4    Definitions of Reflective Practice

This section explores definitions of reflective practice within selected literature, starting with broad definitions and identifying inconsistencies, before focusing on contributions from Schön (1975, 1983, 1987).

Within the context of investigating the understanding of reflective practice in A&D, John Dewey and Donald Schön are consistently cited as seminal authorities by Kinsella (2009), Finlayson (2015), and Marshall (2019). Kinsella frequently references Schön's later works (1987, 1992), while Finlayson draws equally on Schön (1975, 1983, 1987) and Dewey (1938), noting Schön's (1975) early focus on reflection and organisational artefacts and change. This concept has strong ties to design research and practice, wherein artefacts are central to demonstrating craftsmanship, professionalism, and research excellence (Hengeveld et al., 2016; Walker, 2021; Corazzo et al., 2020; Neidderer, 2007; Nimkulrat, Niedderer, and Evans, 2015). Although Schön's (1975) work is less frequently cited, its emphasis on the environment's influence on reflective practice remains relevant, especially in the context of contemporary sustainability concerns. For instance, Deo et al. (2024) highlight how reflective processes enable educators to integrate global challenges

into curricula, preparing graduates to address these issues. This broad scope supports a review of Schön's evolving theoretical stance over time.

## 2.5    Schön's Contributions to Reflective Practice and Changes Over Time

Schön's work on reflective practice spans nearly two decades, with each publication offering distinct perspectives. In *Beyond the Stable State* (1975), the concept of dynamic conservatism is introduced, highlighting the environment's role in shaping reflection, a notion particularly relevant to design, in which context and adaptability are key, as also supported by Papanek (1992) and Manzini (2015), mentioned earlier as leading figures within design practice. *The Reflective Practitioner* (Schön, 1983) formalises the concepts and models of reflection-in-and-on-action, which are foundational for design practitioners facing complex, real-time problem-solving challenges, echoing the societal ideas of William Morris (Midal, 2023). In *Educating the Reflective Practitioner* (1987), Schön's focus shifts to developing reflective practitioners in education, an essential aspect of design education where reflective thinking drives innovation (Schoormann et al., 2023). Furthermore, *The Reflective Turn* (1992) compiles case studies that demonstrate the practical applications of reflective practice, illustrating how reflective thinking can be integrated into design processes and pedagogy. Ultimately, Schön's contributions from 1975 to 1992 provide a comprehensive framework for understanding reflective practice and its relevance to education and professional practice, particularly in design. In particular, Schön's (1983) dichotomy between the 'high ground' and the 'swampy lowlands' highlights a key distinction in reflective practice supporting problem-solving. The 'high ground' represents more easily resolvable challenges using traditional technical or scientific methods, while the 'swampy lowlands' refer to ambiguous, complex issues that are dynamic, uncertain, and particular to specific contexts, and are commonly practised in design education (Cross, 2001; Margolin and Buchanan, 1995; Orr and Shreeve, 2017). This distinction also resonates with Moon's (2013) reference to different levels of reflective practice, further highlighting the need for a deeper understanding of these potential stages, their use, and relevance in design education. This extensive body of work supports the prevalence of Schön's theories across multiple disciplines and their particular applicability in this study.

Returning to the systematic reviews of reflective practice, Marshall (2019) cites Dewey (1933) more frequently than Schön (1986). Considering this further, Hébert (2015) notes that Dewey emphasises rationalism and reflection-on-action, as a structured approach, whereby practitioners analyse actions after the occurrence to improve future practice. Schön's model appears to value experiential knowledge and reflection-in-action, emphasising the importance of reflecting during actions, in

| | KEY | Extracts from Finlayson (2015). | Extracts from Marshall (2019). |

| Theorist (Date) | Definition |
|---|---|
| 1. Dewey (1933) | 'The active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends' (p9). |
| 2. Dewey (1938) | 'Reflection is to look back over what has been done so as to extract the net meanings which are the capital stock for intelligent dealings with further experiences. It is in the heart of the intellectual organisation and of the disciplined mind [...] The environment in which human beings live, act and inquire is not simply physical. It is cultural as well. Problems which induce inquiry grow out of the relations of fellow beings to one another' (p720). |
| 3. Schön (1975) | 'Organizations are artefacts designed for human purposes. Their effectiveness depends on their continuing redesign in response to changing values and a changing context for action. Organizational learning would then refer to this process of continuing redesign' (p720). |
| 4. Boyd & Fales (1983) | 'The process of internally examining and exploring an issue of concern, triggered by an experience, and which creates and clarifies meaning in terms of self, and which results in a changed conceptual perspective' (p99). |
| 5. Boud, Keough & Walker (1985) | 'Those intellectual and affective activities in which individuals engage to explore their experiences to lead to new understandings and appreciations. It may take place in isolation or in association with others' (p19). 'Reflection is an important human activity in which people recapture their experience, think about it, mull over and evaluate it. It is working with experience that is important in learning' (p720). |
| 6. Schön (1987) | 'A dialogue of thinking and doing by which I become more skilful' (p721). |
| 7. Louden (1991) | 'Reflection is a mental process which takes place out of the stream of action, looking forward or back to actions that that have taken place' (p721). |
| 8. Mezirow (1991) | 'The process of critically assessing the content, process, or premise(s) of our efforts to interpret and give meaning to an experience' (p104). |
| 9. Reid (1993) | 'Reflection is a process of reviewing an experience of practice in order to describe, analyse, evaluate and inform learning about practice' (p721). |
| 10. Johns (1995) | 'It is a personal process that usually results in some change in their perspective of a situation or creates new learning for the individual' (p721). |
| 11. Tate & Mills (2004) | 'We learn through critical reflection by putting ourselves into the experience and exploring personal and theoretical knowledge to understand it and view it in different ways' (p722). |
| 12. Duffy (2007) | 'An active and deliberate process of critically examining practice where an individual is challenged and enabled to undertake the process of self-enquiry to empower the practitioner to realise desirable and effective practice within a reflexive spiral of personal transformation' (p1405) |
| 13. De Dea, Roglio & Light (2009) | 'To stop, think, and reflect profoundly on their experiences, as it is important to appreciate the past before using the present to obtain a better future' (p722). |
| 14. Black & Plowright (2010) | 'The process of engaging with learning and/or professional practice that provides an opportunity to critically analyse and evaluate that learning or practice' (p210). |
| 15. Hegarty, Kelly & Walsh (2011) | 'Reflection on activities undertaken in the workplace, that such activity can be deconstructed, to reveal the multi-layered character of knowing-in-the-world, and therefore the intrinsic sophistication involved in undertaking professional roles' (p722). |
| 16. Johns (2011) | 'The practitioner's ability to access, make sense of and learn through work experience, to achieve more desirable, effective and satisfying work' (p23). |
| 17. Nilström, Nordström & Ellström (2012) | 'Reflection is typically described as a mechanism to translate experience into learning, by examining one's attitudes, beliefs and actions, to draw conclusions to enable better choices or responses in the future' (p722). |
| 18. Gentile (2012) | 'A deliberate process that actively engages an individual in exploring his or her experiences. The exploration of decisions, thoughts and feelings should inform and improve practice' (p102). |
| 19. Cleary, Horsfall, Happell & Hunt (2013) | Reflection is a multifaceted process (not a simple product) in which a person's cognitive and emotional capacities are activated for constructive learning purposes that may result in attitudinal or behavioural changes' (p69). |
| 20. Moon (2013) | 'A mental process with purpose and/or outcome in which manipulation of meaning is applied to relatively complicated or unstructured ideas in learning or to problems for which there is no obvious solution' (p155-156). |
| 21. Knowles, Gilbourne, Cropley & Dugdill (2014) | 'A purposeful and complex process that facilitates the examination of experience by questioning the whole self and our agency within the context of practice' (p10). |
| 22. Kolb (2014) | 'The internal transformation of experience' (p46). |

Table 1.      Definitions of Reflective Practice collated from Finlayson (2015) and Marshall (2019).

| KEY | Extracts from Finlayson (2015). | Extracts from Marshall (2019). | Linkage with A&D |

| | 1930–1939 | 1940 | 1950 | 1960 | 1970–1979 | 1980–1989 | 1990–1999 | 2000–2009 | 2010–2019 |
|---|---|---|---|---|---|---|---|---|---|
| 00. | | | | | | | 1990 Brookfield, **Adult Ed./Andragogy.** | 2000 Gilbert & Strudel, **Sports Ed.** | 2010 Black and Plowright; **Prof. Dev.** 〔2010 Nilsen, Nordström & Ellström, **Workplace Learning/Evidence-based Practice.**〕 |
| 01. | | | | | | | 1991 Meizrow., **Andragogy.** 〔1991 Louden, **Teaching.**〕 | 2001 Moon, **Education Dev.** | 2011 Hong & Choi, **Instructional Design;** Johns, **Healthcare.** 〔2011 Hegarty, Kelly & Walsh, **Workplace learning/mgmnt.**〕 |
| 02. | | | | | | | | | 2012 Gentile, Nursing; Kalantiz & Cope, **Secondary Ed.** |
| 03. | 1933 Dewey, **Education, Psychology.** Also cited by Marshall. | | | | | 1983 Boyd and Fales, **Psychology.** | 1993 Reid, **Nursing Education.** | | 2013 Cleary et al. Mental Health Nursing; Moon. **Education & Prof. Dev.** |
| 04. | | | | | | | | 2004 Tate & Mills, **Health.** | 2014 Knowles et al., **Sports Ed.,** Kolb, **Education.** |
| 05. | | | | | 1975 Schön, **Org. mgmnt** | 1985 Boud et al., **Education.** | 1995 Johns, **Nursing.** | | |
| 06. | | | | | | | | | |
| 07. | | | | | | 1987 Schön. | | 2007 Duffy, **Nursing.** | |
| 08. | 1938 Dewey. Also cited by Marshall. | | | | | | | | |
| 09. | | | | | | | | 2009 De Dea, Roglio & Light, **Executive mgmnt.** | 2019 Marshall, **Psychology, Life & Sport sciences.** |
| | **Number of different definitions of Reflective Practice** | | | | | | | | |
| | 2 | 0 | 0 | 0 | 1 | 3 | 5 | 5 | 12 |

Table 2.   The range of reflective practice definitions across time, showing key authors and disciplinary focus by Finlayson (2015) and Marshall (2019).

the immediacy, to gain insights and adapt accordingly. This suggests Dewey (1933) is goal-oriented and Schön (1983) is more intuitive and responsive to the specific context. Together these illuminate the conflation between theories of reflective practice and the inherent fusion of processes and outputs, experimentation and assessment, within design education (Sims and Shreeve, 2012), which also echoes the nuanced differences in the understanding of reflective practice across Kinsella (2009), Finlayson (2015), and Marshall (2019).

These divergent references to reflective practice support Finlayon's (2015) suggestion that there is no single, agreed theoretical influence, and that 'anything goes'. Kinsella's (2009) focus on Schön (1983, 1987, 1992), Finlayson (2015) and Marshall (2019) critique numerous definitions of reflective practice that further exhibit the multiplicity of nuanced interpretations of reflective practice (see Table 1).

Table 1 classifies twenty-two definitions of reflective practice, published across eight decades, with eleven each identified by Finlayson (2015) and Marshall (2019). Dewey (1933; 1938) is cited twice by both researchers with different meanings of reflection distinguished across a five-year gap (Table 1, Line 1 and 2); Finlayson's (2015) selection has greater complexity and lesser renowned citations than Marshall's (2019). Schön (1975; 1987) is also cited twice, with differing descriptions spanning twelve years by Finlayson (2015) (Table 1, Line 3 and 6); and Marshall (2019) omits any reference to a classification by Schön. Altogether, it could be argued, these recurrences offer no clarity for understanding reflective practice due to the extent of different nuanced understandings, requiring further scrutiny.

During the four decades following Dewey and Schön's introductions of reflective practice (1933-1975), there were no significant definitions recorded by Kinsella (2009) or Finlayson (2015), suggesting a static period that is the greatest time lapse between any noted change to the authority of reflective practice. Reflecting on this period, Finlayson (2015) notes reflective practice was informed primarily by observation, advocating a potentially passive context arising from surveillance, rather than active engagement, which has conceivably been transcended or superseded within current HE by creative industry practices that promote interaction, participation, and collaboration (Thorpe, 2001; Design Council, 2017; Orr and Shreeve, 2019). After 1987, changes to reflective practice increased, suggested by Finlayson (2015) to represent dynamism over evolution, which was deemed personal to individuals, lending further validation that 'anything goes' for a definition of reflective practice. For Marshall (2019, p.396) collated definitions of reflective practice resulted in a concluding description that it was confusing with a probable negative impact:

> '[t]he variety of definitions for reflection likely causes diverging
> theoretical narratives and a concomitant decrease in professional

engagement with reflective practice'.

This quote reinforces a need for reflective practice to be better understood so that it can be used effectively to aid professionalism. As a result of the deficit of clarification, Marshall's (2019) subsequent systematic analysis reviewed thirteen-hundred articles, offering extensive insight. Reflective practice was identified as a social construct most commonly considered as a cognitive process expedited via the explicit articulation of ideas. Six out of the final selection of fourteen articles supported this claim. Appendix 1 details all papers identified by Finlayson (2015) for transparency, contextual depth, and evidential support, reinforcing the thesis argument that design is less represented over other disciplines and makes a value contribution to creative HE contexts. Notably, Marshall's (2019) compilation included a quote from Hong and Choi, which was the single representation of a definition of reflective practice for design disciplines:

> 'We define reflective thinking in the context of solving design problems as conscious mental activities that examine designers' courses of action, decisions, and their inner selves in given situations throughout a design process' (p403).

While Hong and Choi (2011) represent the only reference to design among the selected sources:their focus is on design engineering rather than design practice. This distinction is crucial, as it highlights a gap in the existing literature on reflective practice within the broader context of design. Therefore, this thesis aims to offer a clear contribution to the understanding of reflective practice specifically within design practice, moving beyond the scope of design engineering to address the particular challenges and cognitive processes inherent in design education and professional practice. This perspective illuminates the interconnectedness of design processes with reflective practice, considering action, which envelops physical skill development alongside cognition for rationalisation and introspection. This integration highlights the multifaceted nature of reflection in design, blending technical skills with deeper cognitive processes.

Additional to highlighting key texts from primary sources within the reviewed literature, Marshall (2019) identifies secondary citations that also reference reflection as a cognitive process, which includes six sets of theorists; Schön (1986), Brookfield (1995), Mezirow (1991), Gilbert and Trudel (2000), Moon (2004) and Kalantzis and Cope (2012). Mezirow (1991) was most commonly cited while the others were cited only once (for full details see Appendix 1). The inclusion of Schön (1986) highlights maintenance as a predominant authority although repeated citing of Mezirow (1991), and the inclusion of authors with

lesser repute, upholds the claim that reflective practice embraces a divergent comprehension.

## 2.5.1   Schön's Modes of Reflective Practice

Adding further to the complexity of defining reflective practice, Schön's (1975 1983, 1987) theory, is categorised into three distinct modes: in-action, on-action, and for-action. Each mode represents different and combined aspects of thinking. In-action involves real-time reflection during practice, a concept central to Schön's (1983) work and particularly relevant to creative and design practitioners. This mode combines immediate, often intrinsic decisions with experiential learning, merging skill and values (Ali, 2020; Jordi, 2011; Ixer, 2016). It is also perceived as a form of coaching, useful in HE for both staff and students (Cox, 2006; Knowles, 1984; Mezirow, 1990). On-action reflection, which occurs after an event, enables post-event analysis crucial in design for learning from experience and informing future actions (Bruno and Dell'Aversana, 2017; Hong and Choi, 2011). Despite this importance, specific references to on-action reflection are rare and often implicit rather than explicitly detailed (Kinsella, 2009). However, Munby (1989) reports that Schön (1983) emphasises the importance of both forms of reflection for professional development, that reflection-in-action is essential for developing practical knowledge and expertise, while reflection-on-action is essential for deepening understanding and improving performance.

For-action reflection, though less discussed, is forward-looking and vital for strategic planning and long-term development in both professional and educational contexts (Thompson and Pascal, 2012; Schön, 1975). Additionally, reflection-for-action is noted by Kinsella (2015) to be key to Kolb's (1984) model as a 'convergent learning style combin[ing] theory and practice into opportunities for action', which accords well with the concept of praxis, whereby implicit knowledge of theory is enacted through practice (Barrett, 2007). Likewise, Frances and Cowan's (2008) What?, What? How? And How? How Well? was highlighted for the 'what-stage' relating to thinking for-action (Kinsella, 2015).

Overall, this for-action mode guides future decisions and actions, often bridging past experiences with future planning to ensure that learning is applied effectively in future scenarios (Marshall, 2019). Collectively these stages of reflection offer a comprehensive process of thinking that is applicable to design education, emphasising both immediate and reflective actions that inform ongoing and future practices.

## 2.6 Summary of Definitions and Implications

To summarise the evaluation of definitions of reflective practice Finlayson (2015) and Marshall (2019) highlight the lack of a consistent definition for reflective practice, despite its widespread recognition. Marshall (2019, p.411) provides a working definition:

> 'Reflection is a careful examination and bringing together of ideas to create new insight through ongoing cycles of expression and re/evaluation.'

While comprehensive, this definition may risk becoming repetitive, aligning with Hong and Choi's (2011) critique of reflective practice in design engineering as needing more depth.

Reflective practice is under-represented in design education and lacks a consistent framework, though it is well-recognised in other disciplines. This gap suggests a need for more explicit integration of reflective methodologies into the curriculum, particularly regarding professional identity and skill development (Schön, 1975-1992). Design, with its focus on innovation, problem-solving, and societal impact (Midal, 2023; Manzini, 2015; Orr and Shreeve, 2019), aligns well with reflective practice theories, such as Schön's reflection-in-and-on-action (1983, 1987) and Kolb's (1984) Experiential Learning model.

Design education could benefit from adopting these frameworks to enhance pedagogical approaches. Simultaneously, design's emphasis on creativity, iteration, and human-centred problem-solving offers valuable insights that could enrich the broader discourse on reflective practice. This intersection presents opportunities for mutual benefit, where design and reflective practice can inform and strengthen each other.

The next section will explore how reflective practice is applied across various contexts, providing a foundation for a nuanced analysis of this study's findings.

## 2.7 Epistemic Prevalence

Epistemology examines the relationship between the knower and the known (Lincoln and Guba, 1989). Hong and Choi's (2011) definition of reflective practice, linked to design principles, highlights it as a deliberate process where designers evaluate actions and decisions throughout the design process. It is important to note the disciplinary focus of those studying reflective practice. Table 2 builds on

**Technical rationality:**
'Schön (1987) defines technical rationality as holding that practitioners are instrumental problem solvers, who select technical means best suited to purposes' (p6).

**Artistry:**
'Schön's use of the artistic parallels this undercurrent in Dewey's work in that his motivation is infused with an appreciation of the artistry required to negotiate the struggles and achievements of everyday practice [...] The intelligent mechanic engages in his job, interested in doing well and finding satisfaction in his handiwork, caring for his materials and tools with genuine affection, is artistically engaged. The difference between such a worker and the inept and careless bungler is as great in the shop as it is in the studio' (p8).

**Constructivist assumptions:**
'Goodman argues that rather than finding a ready-made world, human beings continually make and remake versions of the world using words, numerals, pictures, sounds and other symbols. He calls this world-making' (p9-10).

**Tacit knowledge:**
Polyani sets out to 'recognise human knowledge by starting from the assumption that we can know more than we can tell' (p4). 'Argyris and Schön (1992/1974) describe tacit knowledge as what we display when we recognise one face from thousands without being able to say how we do so, when we demonstrated skill for which we cannot state an explicit program, or when we experience the intimation of a discovery we cannot put into words' (p10).

**Mind-body-dualism:**
'Ryle is interested in overcoming dualities between mind and body and in the link between intelligence and action that is reflected in what he refers to as knowing-how' (p11).

Figure 3.     Schön's (1983, 1987) epistemologies of reflective practice (Kinsella, 2009) (collated by the researcher).

Table 1, showing a timeline of twelve definitions from 2000 to 2019, emphasising the growing efforts to define reflective practice. This research spans multiple disciplines, including education, management, health, nursing, psychology, and philosophy (Finlayson, 2015), as well as sport, secondary education, and pharmacy (Huntley and Cropley, 2014). However, art is notably absent, and design is represented solely by Hong and Choi (2011), reflecting a gap in integrating reflective practice into design education.

Given design's characteristic methodologies, further exploration of reflective practice in A&D is necessary, as current research often overlooks the field (Sims and Shreeve, 2012). This highlights the broader adoption of reflective practice across various disciplines and the need for greater clarity, especially in A&D contexts.

Within the three chosen reviews of reflective practice theory, there was a prevalence for defining an epistemology associated with a constellation of varied characteristics without consensus. Here Kinsella (2009) articulates five theories associated with Schön, Marshall (2019) identifies four concepts arising from qualitative investigation, and Finlayson (2015) classifies three different theoretical perspectives. Given the intricate nature of design, which often involves navigating between the technical and the artistic (Margolin and Buchanan, 1995), these varied epistemologies present opportunities for cross-pollination between reflective practice theories and design methodologies, suggesting a fertile ground for innovation in reflective pedagogies within design education. Given this miscellany of different epistemologies it is useful to review each in order of descending themes.

## 2.7.1 Five Themes of Reflective Practice

Kinsella (2009) is the first of the three selected researchers reviewed to gain a deeper insight to an understanding of reflective practice specifically through the lens of Schön (1983, 1987, 1992), whose work resonates with design practice, as discussed earlier, and aligns with the framework Kinsella employs. Five themes central to Schön's (1983, 1987) epistemology of reflective practice are debated, each aligned to a seminal influence. Artistry links with Dewey (1958a, 1958b); constructivist assumptions with Goodman (1978); tacit knowledge with Polyani (1966a, 1966b, 1967), and mind-body dualism with Ryle (1949). Technical rationality is the exception, listed first and linked to Schön (Figure 3). These theories are recognised as 'important to view together or in conversation with one another' (Kinsella, 2009, p.13), supporting Hébert's (2015) critique that Dewey (1933) and Schön (1983) may be considered outdated due to the perception of these models as separate entities. Hébert suggests that tacit practice should be further integrated into the conception of reflection. However, despite Kinsella's (2009) themes

appearing an antidote to the confusion surrounding reflective practice, to aid understanding, the relationships between these five contexts are unclear. This suggests there are a myriad of interactions requiring further analysis and consideration of an association with A&D.

Design education, which often involves an intricate balance of theory and practice (Margolin and Buchanan, 1995) could benefit from a more integrated approach that considers these epistemologies, particularly how technical rationality, artistry and tacit knowledge converge in the creative process, given they are each prevalent within current HE A&D pedagogy (Orr and Shreeve, 2019).

## 2.7.1.1    Technical Rationality

While technical rationality is potentially considered a primary component of reflective practice, as suggested by its ranking in Kinsella's (2009) analysis, it's important to note that Schön recognised its limitations. Despite its instrumental value in problem-solving, Schön perceived technical rationality as an incomplete binary model, highlighting the need for a more flexible, intuitive, and artistic approach to reflective practice. Greek and Aristotelian traditions of phronesis and techne, as theoretical and practical, and technical and strategic methods, are described by Carr and Kemmis (1995) as a means-end relationship, which portends one informs the other. This cyclical unity is supported by Benner (2000, p.83) citing Dunne's definition of technical rationality as,

> 'The necessary condition for the development and enactment of rational technical thought and action [and...] rational calculations by pre specifying outcomes'.

This presents the technical and rational as tandem, comparable with the design process in which technical skill acquisition and application, and rationalisation of these inform subsequent solutions. In support, Åman et al (2017, p.58) state; 'design is not solely a technical process. It is also a human-centred activity involving aesthetics, symbolism and meaning'. However, Cheng-hung (2020) contends the interdependency between these factors is unequal; those with techne (wisdom) are capable to consider an end goal, whereas those with phronesis (skill) may not necessarily be proficient, nor required, to deliberate an end point. This proposes an asymmetry that may constrain professionalism. This deliberation of technical rationality is evidenced in van Manen's (1995) long-standing diatribe regarding the

complexities of teaching leaving little time for applying reflective practice theory to pedagogy. Furthermore, Newman (1999) contends emphasis on technical rationality is at the cost of the experiential aspect of practice, which Schön (1983, 1987) acknowledges is a positivist stance, with artistry offered as a relativist antidote. In the context of design, as stated earlier, balancing technical proficiency with creative intuition is crucial, understanding how technical rationality can be harmonised with artistic sensibility could enhance reflective practices in design education, ensuring that both elements are equally and explicitly valued and integrated into the learning process.

## 2.7.1.2    Artistry

Kinsella (2009) argued that Schön (1983) is influenced by Dewey's (1958a, 1985b) notion of artistry as a higher-order cognition that acknowledges everyday activity as art and aesthetics. The related quote regarding artistry (Figure 3, above) exemplifies this understanding, stating that an intelligent mechanic acknowledges the artistry within their craft while a novice does not. Mewburn (2012) similarly highlights that Schön (1983, 1985) links artistry with skills acquisition and an understanding of materiality, equating it with good practice, which also parallels aspects of technical rationality. While associating artistry with good practice may seem like a binary interpretation, it also supports understanding complexities within education and professionalism, such as disorder, inconsistency, uncertainty, and value conflict (Cossentino, 2010; Mewburn, 2012). These intricacies correspond with artistic practice, including reference to ambiguity in the signature pedagogies of A&D (Fish, 1998; Sims and Shreeve, 2012; Vaughan et al, 2008). Additionally, artistry links with intuition, judgement, and wisdom, supporting a reflexive understanding between the practitioner and their methods of reflecting (Paterson, et al., 2006), which Scott (1990) emphasised should be garnered using creative approaches. This alignment shows probable support for artistry aligning with A&D. Given the emphasis on creativity and innovation in design(Design Council, 2018; IDEO, 2024a; Orr and Shreeve, 2019), the concept of artistry within reflective practice is particularly pertinent. It underscores the necessity for design education to cultivate technical skills alongside artistic sensibility, which enables designers to navigate and resolve complex, ambiguous problems creatively (Venkatesh and Ma, 2021. Artistry links cognitive thinking with technical and practical knowledge domains, reinforcing the dynamism of personal reflection (Finlayson, 2015). It offers deeper insights that extend beyond a focus on art and aesthetics, suggesting this theme is valuable in supporting other themes within this collection of epistemologies. In this context, artistry can be viewed as a form of professionalism within design. Schön (1983, p.130) illustrates this by stating,

'The practitioner gives an artistic performance. He responds to the complexity, which confuses the student, in what seems like a simple, spontaneous way. His artistry is evident in his selective management of large amounts of information, his ability to spin out long lines of invention and inference, and his capacity to hold several ways of looking at things at once without disrupting the flow of inquiry.'

This quote encapsulates how artistry, in the teaching practices of design educators, involves sophisticated cognitive abilities, such as managing and integrating multiple perspectives, which are essential to professional practice in design (Design Council, 2018). Artistry acts as a complement to technical rationality. It exemplifies the sophisticated skills needed for navigating contemporary design challenges. This is especially true in light of equitable, socially responsible, and intersectional perspectives inherent to design education futures (St John and Suhendra, 2024).

## 2.7.1.3        Constructivist Assumptions

As the third epistemology, the construct of knowledge has varied interpretations with differing terms noted between constructivist and constructivism (Kinsella, 2006), which are each used by Schön (1987, 1992) and add yet a further layer of complexity to the understanding of reflective practice. Kinsella (2009) identifies Schön's (1987) support for Goodman's (1978) constructivist theory associated with 'world-making', which proposes there is no fixed reality; the world is constructed from remaking varied conceptualisations, such as individual prototyping and sampling within design practice (Sims and Shreeve, 2012). This perception sustains the understanding that reflective practice is personalised and synchronises with A&D pedagogy in that research investigations of past and current practices are continuously evaluated to inform new conceptualisations, such as reflecting on assessment and building on strengths and weaknesses (Sims and Shreeve, 2012; Orr and Shreeve, 2019). This aligns with design's iterative process of creating, evaluating, and refining, which is inherently reflective and constructivist (Bredies et al, 2010). The constant re-evaluation of concepts and prototypes in design education can benefit from these constructivist assumptions (Tsai et al, 2023; Pande and Bharathi, 2000), allowing for a deeper integration of reflective practice into the design process.

Kinsella (2006, 2007) also reviews the relevance of constructivism to the epistemology of reflective practice, highlighting the influences of Kelly, Piaget, and von Glaserfeld, as reflected in the works of Argyris and Schön (1974), Schön (1983, 1992), and Schön and Rein (1994). Similarly, Osterman (1998) notes a preference for constructivism, proposing reflective practice and constructivism also bridge the

gap between theory and practice, which seems akin to the understanding of the relationship between technical rationality and artistry, discussed in the previous section. This could be perceived as advantageous, lending an overarching coherency to reflective practice, or lend confusion arising from interrelations that add complexity to the entanglement of contributions amongst these epistemologies of reflective practice. However, differences between constructivism and constructivist interpretations are not made transparent, and extend beyond the remit of the thesis investigation (Kinsella, 2006).

Therefore, it is useful to return to Kinsella (2009) noting Goodman's (1978) stance is deemed relevant and influenced by words, pictures and symbols. This interpretation suggests a reflexive understanding offering further alignment with A&D practice, in that an artist-designer selects conducive methods and materials to work with that may not be perceived alike by everyone. The constant re-evaluation of concepts and prototypes in design education can benefit from these constructivist assumptions (Tsai et al, 2023; Pande and Bharathi, 2000), allowing for a deeper integration of reflective practice into the design process. A key aspect of this is the ability to critically choose and apply different methods based on individual and project-specific needs, which is a core skill in design education (Tang et al., 2020). This constructivist approach underscores the necessity of personalised, context-driven reflection in design.

## 2.7.1.4        Tacit Knowledge

Tacit knowledge is the penultimate theme identified by Kinsella (2009). Polyani's (1967) theory of tacit practice is important regarding 'knowing more than we can tell' p.10), particularly when reflecting-in-action (Schön, 1983, 1987; Argyris and Schön, 1974/1999) so that implicit understandings can be recognised, leading to different ways of encapsulating and authenticating professional practice. This suggests that despite tacit understanding seemingly appearing undisclosed, it is acknowledged, although there are long contested opinions about whether tacit practice can, or needs to be, elucidated'. Van Manen (1995) considers tacit knowledge is unarticulated as embodied or 'moody' knowledge, which suggests there is difficulty in interpretation, giving an example of a tutor effortlessly navigating physical, cognitive and behavioural terrains within the classroom. Yet if the pupil was asked to describe these, he would probably not remember the microcosm of these nuanced practices. Additionally, Sternberg (1999) authored a book focusing on explicating tacit practice considering both individual and organisational perspectives. This resonates with Argyris and Schön's (1974/1992) understanding that tacit practice is enacted experientially. Smith (2001) also deliberates that tacit knowledge relates to common sense, with explicit knowledge linked to academic knowledge. Mewburn

(2012, p. 366) illuminates a double-meaning arising from Schön describing artistry as a kind of 'tacit knowing'. Further, Loenhoff (2015) makes an association of tacit with the mind and body, Hadjimichael and Tsoukas (2019) assert there are three states of knowing; conversion, from tacit to explicit; interactional, as an intellectual union of tacit with explicit; and practical, as a joining of the two knowledge types that cannot be separated. More recently, Ravanal et al. (2021) lend enduring substantiation for clarifying tacit practice, promoting reflective practice as a tool to aid questioning and explanation for explication. In design, much of the knowledge is embedded in practice and experience (Culshaw, 2023; Leigh, 2016; Vijayalakshmi, 2022) and recognition and articulation of tacit knowledge is crucial. Understanding how tacit knowledge manifests in design processes, such as through material manipulation or iterative prototyping, could significantly enhance the development of reflective practices that are more attuned to the realities of design education.

These varied articulations of tacit practice, presented by researchers across different time periods, suggest that further research is required to clarify the role and impact of tacit knowledge in design education—a focus that may be supported by the thesis investigation. In particular, there is a need to explore the integration of tacit thinking within diverse A&D practices. For instance, activities like drawing, painting, and textile design (Budge, 2016a, 2016b), or craftsmanship within design, such as knifemaking (Wood et al., 2009), involve processes that carry hidden meanings, spanning technical, rational and emotional domains and more. Additionally, Philipson (2019) argued that symbolic tools, such as illustrations and diagrams, can be more effective than language in capturing tacit knowledge. These meanings are often conveyed through the mind, body, and specific materials, whether to communicate intentional or unintended messages (Jarvis, 2007; Marinkovic, 2021). Moreover, cultural capital and habitus (Bourdieu, 1977) can also manifest through tacit practices (Mareis, 2012), highlighting how individual social positioning and ingrained behaviours influence the creative process. These practices are not always easily articulated through sensory experiences, as they may involve deeply embedded, non-verbal knowledge (Schindler, 2015), which further complicates the process of making tacit knowledge explicit

Collectively, these pervasive instances of tacit practice in A&D reinforce the relevance of this theme to reflective practice and the thesis research, particularly in exploring how tacit knowledge can be consciously integrated into reflective practice frameworks to better support the specific demands of design education. The diversity of tacit practices, spanning art, design, and craft, further underscores the need to focus specifically on design education in this thesis, where problem-solving, user-centred approaches and disruptive methodologies are central (Lee-Smith, 2019; Lohiser and Puccino, 2019; Pande and Bharathi, 2000). The linkage of tacit knowledge with the mind and body and embodied knowledge (van Manen, 1995;

Loenhoff, 2015; Budge, 2016a, 2016b; Marinkovic, 2021) leads into the final theme within Kinsella's (2009) review.

## 2.7.1.5 Mind-and-body Dualism

The concluding theme of mind-and-body dualism within this epistemology of reflective practice shares similarity with some of the other themes relating to these being two-fold entities within this concept. Kinsella (2009) identifies Ryle's (1949) mind-and-body dualism links to two constructs. First, 'knowing how', which embraces mind and intelligence with action; thus by performing a bodily action knowledge is spontaneously activated. Second, 'knowing that', which links with the current research focus and use of the term 'understanding' that requires 'knowing how' as a prerequisite. Together these concepts share a resemblance with tacit knowledge, highlighting the interrelated aspects of reflective practice. Hubrich (2015) describes the embodiment of the mind and body as tacit due to an intellectual, cultural and collective anchorage within the body, or alternatively as performative knowing through doing, such as intricately weaving specific strands of yarn into the fabric of knitting. Therefore, while mind-and-body dualism appears broadly comprehensible, the two-fold understanding lends yet a further layer to the complexity of this epistemology, and reflective practice. Edwards and Thomas (2010) deliberate mind-body dualism within the teaching of teacher reflection and acknowledge dominance is often placed on the mind-aspect and cognition (such as scholarship, intellectualising and understanding) rather than focusing on bodily and social enactments. Kinsella (2009) acknowledges the complexity of mind-and-body dualism and advocates for further research to better understand its role in reflective practice. In design, where both physical creation and conceptual thinking are crucial (Hengeveld, et al., 2016), integrating mind-body dualism into reflective practices can enhance the holistic development of design lectures and student practices, fostering a balance between thought and action through creative activities. This suggests the final theme within Schön's understanding of reflective practice is also incomplete (like technical rationality), lending viable weakness as a concluding aspect to the overall epistemology, which therefore appears open to wider research

As a summary of reviewing Schön's (1983, 1987) epistemology of reflective practice, Kinsella (2009) identifies five themes that offer important contributions to pedagogy, professional practice and society. Despite this assured relevance, the prioritisation, contribution and implication of these themes, individually or collectively, are not made transparent. For this thesis investigation, while appearing multifaceted and complex there are clear associations of these epistemologies of reflective practice with the ontology of A&D. This suggests that design education, with its inherent blend of technical, artistic, and reflective practices, is

well-positioned to leverage Schön's (1975, 1983, 1987) theories to foster a more integrated and dynamic approach to learning and professional development. Technical rationality, artistry, constructivist assumptions, tacit practice and mind-body dualism all appear to synchronise with A&D practices.

However, a difficulty in clearly understanding Schön's (1983) epistemologies arises from overlaps and inconsistencies between them. Artistry shares association with technical rationality (Schön, 1983, 1985; Mewburn, 20212), although having the status of a higher-order ranking (Kinsella, 2009) could support justification for priority placement as the primary epistemology for reflective practice. Technical rationality and mind-and-body dualism, as first and final themes, are identified as incomplete or requiring further research. Furthermore, constructivist assumptions are not differentiated from constructivism, and the dichotomy between acknowledged or unacknowledged tacit practices remains unresolved, which altogether lends support for further investigation. Deeper exploration of these themes within the specific context of design could yield valuable insights, helping to clarify how these epistemologies can be practically applied and adapted to the specific demands of design education. Therefore, having completed Kinsella's (2009) understanding of Schön's five key theories of reflective practice, Marshall's (2019) insight is next contemplated.

## 2.7.2    Four Themes of Reflective Practice

Marshall (2019), as the most current of the selected researchers to review reflective practice, categorises four theories that differ from Kinsella's (2009). These themes derive from a constructivist, systematic synthesis of qualitative research, through identifying commonly occurring terms and concepts, and aiming to define a consensus understanding and a refined definition of reflective practice. These themes are listed in descending order: cognitive, integrative, iterative and active. This means cognitive reflective practice most commonly occurs out of the four most prevalent terms associated with reflective practice. However, this ranking can be interpreted as sequential or a cyclical practice, which describes the concept of models of reflective practice and are briefly considered before further consideration of Marshall's (2019) findings.

### 2.7.2.1          Models of Reflective Practice

Building on Fried's (2020) definition of a model as a bridge that turns theories into practical tools, models of reflective practice are described as methods to aid the enactment of reflective practice (Finlayson, 2015). More extensively, they comprise

three stages of thought: retrospection, re-evaluation, and reorientation (Quinn, 188/20009, cited by Finlay, 2008). Combining both interpretations, it appears reasonable to suggest a model is the agent facilitating the transition between thinking and doing. While not detracting from the theoretical focus of this chapter, it is important to note that there are as many divergent models of reflective practice as there are theoretical definitions. Appendix 2 details the models collated by Finlayson (2015). This variety adds further intricacy to the understanding of reflective practice. For example, in addition to multiple definitions, eleven models were established from 1938 to 2008, each with varied stages and degrees of alignment with Quinn's (1998/2000) threefold aims.

Continuing with Marshall's (2019) analysis, identified models comprising multiple stages are detailed here in ascending order. First is Schön's (1983; 1987) two-stage model of reflection-in-action and reflection-on-action. Next is the tripartite questioning mode, What?, How?, and How Well?, proposed by Francis and Cowan (2008). This is followed by Brookfield's (1995) four lenses: autobiographical, learner's eyes, our colleagues' eyes, and theoretical literature. Interestingly, Brookfield's lenses align with the thesis structure. Autobiographically, the researcher's biography and reflexivity sparked the initial interest in reflective practice, leading to an exploration of how design students, as learners, articulate reflective practice (Raven, 2018). The focus then shifted to examining the perspectives of academics, as colleagues, within the ontological framework of HE A&D. Furthermore, theoretical literature is fundamental to this study, providing rigour and identifying gaps in the current understanding of reflective practice.

This brief overview of Marshall's (2019) selected models, which contrast with Finlayson's (2015) (refer again to Appendix 2) highlights the plethora of options available for academics in design education to apply within their learning and teaching (L&T). This variability in choice is significant. For example, while Schön's (1983) model appears suitable for evaluating design practice, Brookfield's (1988) model aligns well with the structure of the thesis. This understanding of the models informs Marshall's (2015) collective interpretation, which amalgamates varying definitions of reflective practice.

## 2.7.2.2     Cognitive, Integrative, Iterative and Active Themes

Marshall (2019) defines four themes of reflective practice: cognitive, integrative, iterative, and active, although these appear more closely allied with a model than a theoretical underpinning. First, the 'cognitive' theme involves analysis and comprehension, emphasising that conscious thought is essential for problem-solving and clarifying ambiguity; without it, development is not possible. Second,

'integrative' refers to the conscious blending of existing and new ideas, facts, and subjectivities. Third, 'iterative' represents the cyclical nature of thinking, evolving over time through the interpretation of various modes of representation, such as writing. Finally, 'active' is defined as conscious, deliberate, and intentional engagement, suggesting that an agent must be central to the process to create the coherence needed to make sense of an experience or idea.

While comprehensible, these four themes lack an overt association with professionalism and do not resonate with Schön's (1983, 1987) epistemologies. Marshall (2019) acknowledges reflexive constructivist assumptions but focuses on different aspects of reflective thinking without explicitly engaging with the nuances of technical rationality, artistry, or mind-body integration. Furthermore, tacit practice is not explicitly represented. However, the reference to 'the process of writing makes internally represented ideas explicit' (p.411) indicates that it is inherently part of the active theme.

Moreover, Marshall's (2019) review makes only a single reference to A&D, specifically to the work of Hong and Choi (2011). Rather than considering the signature pedagogies of more creative disciplines (Chick et al., 2012; Sims and Shree, 2012), there is an emphasis on a generic interpretation of reflective practice, and onus given to writing as the dominant mode for articulation. This focus on textual methods further highlights a discrepancy with A&D practice. The limited reference to design and the emphasis on written reflection suggest that Schön's (1983, 1987) framework, with the strong association with design, remains the most appropriate theoretical foundation for reflective practice in design education before considering other epistemologies in this review.

## 2.7.3    Three Themes of Reflective Practice

Finally, Finlayson (2015), as the last of the selected researchers seeking to clarify an understanding of reflective practice embraces three different epistemological perspectives: the Vygotsky principle (Peck, Gallucci, Sloan and Lippincott, 2009), Temporality (Harré and van Langenhoven, 2008) and Socio-cultural theory (White, 2010). These theories offer a new insight to reflective practice in response to changes over time (Finalyson, 2015), which introduce an alternative stance to Schön (1983, 1987) and is useful to consider against the thesis focus of A&D.

### 2.7.3.1        The Vygotsky Principle

As first in this tripartite interpretation of reflective practice, the Vygotsky principle

is a socio-cultural, multi-directional and dynamic framework supporting the transfer of learning from personal to collective statuses within private and public contexts. This summary is a refined definition, with Finlayson (2015) citing Peck et al. (2009) and Harré et al. (2008) as seminal influences, without direct reference to Vygotsky's (1962, 1978) theories of semiotic mediation and the Zone of Proximal Development. These concepts are primarily linked to child development (Zaretsky, 2016) and the importance of language, including societal signs and symbols as cues that aid the transition of internal unconscious thinking towards conscious reflective practice (Collin and Karsenti, 2011). This principle has parity with A&D signature pedagogies of visual literacy and verbal critique (Sims and Shreeve, 2012), although no specific disciplinary linkages are noted by Finlayson (2015). However, this principle presents as a useful additional theme to Schön's (1983, 1987) five epistemologies of reflective practice that do not appear to directly account for social-cultural contexts (Boud and Walker, 1998). Although this critique could be questioned in lieu of Schön's (1983, 1987) focus on the tutor-student interactions within the design studio.

## 2.7.3.2    Temporality

Finlayson (2015) discusses temporality in reflective practice as encompassing three aspects of personal transience: embodied, autobiographical, and social. 'Embodiment' focuses on the relationship between the internal self and the external world; 'autobiography' involves the narrative development of personal understanding; and the 'social self' pertains to sharing knowledge with others.

While referencing theorists like Harré et al. (2008), Finalyson (2015) omits direct engagement with key thinkers on time, such as Aristotle, Heidegger, and Derrida (as noted by Protevi, 1994; Cao, 2020). This lack of rigour lends weakness to the argument. However, aspects of temporality intersect with Brookfield's (1995) framework: the autobiographical lens reflects personal experiences over time, the learner's perspective captures evolving understanding, and the colleague's view involves shared development through social interaction. These intersections suggest that temporality, including personal narrative and social engagement, is central to reflective practice. Additionally, Finlayson's notion of embodiment aligns with Schön's (1983, 1987) mind-body dualism, acknowledging the integration of thought and action.

However, Finlayson's (2015) framework lacks the theoretical grounding provided by Brookfield's fourth lens, which emphasises the importance of literature. This omission makes this perspective on temporality seem incomplete, as it does not fully explore how reflective practice unfolds over time. Furthermore, reflection before, during, or after action is neglected, a gap also noted by Greenwood

(1993) that Schön's work lacked consideration of 'before' action . Therefore, while contributing to the discourse on temporality, this epistemology would benefit from deeper theoretical engagement and a more nuanced understanding of time-bound reflection.

### 2.7.3.3          Socio-cultural theory

Finlayson's (2015) review of reflective practice concludes with socio-cultural theory (White, 2010), which places emphasis on situated learning within specific contexts rather than isolated individual development. However, this treatment appears overly simplistic, lacking engagement with the broader scope of the theory. Notably, key influences are omitted such as Legitimate Peripheral Participation (Lave and Wenger, 1991) and Communities of Practice (Wenger, 1998).

## 2.8      Legitimate Peripheral Participation

Lave and Wenger's (1991) concept of Legitimate Peripheral Participation (LPP) offers a more rigorous understanding than Finlayson's (2015) reference to White's (2010) social framework. LPP situates learning as an ongoing, reflective process within a social context, endorsing the fluidity of participation. Lave and Wenger (1991, p.36) describe learning as 'centripetal,' involving multiple layers of engagement, from novice to expert. Giddens' (1979) notion of 'decentering' is cited by Lave and Wenger (1991, p.54) to highlight the dynamic and reflective nature of learning as it flows through various social structures.

This approach to learning embraces diverse characteristics and acknowledges the influence of social and cultural factors. It considers the complexities of power relations and personal or social structures that impact engagement in learning communities, paving the way for the concept of Communities of Practice (Wenger, 1998).

### 2.8.1    Communities of Practice and Related Theories

Wenger's (1998) theory of communities of practice (COP) links learning directly to lived experiences, emphasising how people with shared practices contribute to group learning. This theory involves four key characteristics that affect community cohesion and endurance. First, 'mutual engagement' is associated with active participation. Second, 'shared repertoire' involves task engagement and shared responsibilities. Third, 'joint enterprise' relates to accountability and cooperation.

| Paradigm Definition | Vygotsky Space Parameters | | | Temporality | Socio-Cultural Learning |
| --- | --- | --- | --- | --- | --- |
| | Interaction | Learning | Contextual | | |
| Appropriation | Appropriation | Collective | Public | Embodied Self | Situational |
| Transformation | Transformation | Collective | Private | Embodied Self | Individual |
| Publication | Publication | Individual | Private | Autobio-graphical Self | Individual |
| Convention-alisation | Convention-alisation | Individual | Public | Social Self | Situational |

Table 3.　　Paradigms containing Socio-Cultural Learning, Temporality and the Vygotsky Principle Lens.

Fourth, 'reification' gives concreteness to abstract concepts, such as how reflective writing can reify random thoughts in response to real-world experiences.

Wenger (1998, p.236) further identifies four dualistic components that inform the 'conceptual architecture' of a COP. These link the previous characteristics into a more complex framework. First, 'participation-reification' considers the practical, material, and organisational aspects of both practice and the practitioner. Second, 'designed-emergent' addresses the changing nature of the designed outcome and the maker's identity as they engage in ongoing practice. Third, 'local-global' explores the paradoxical relationships between the immediate and established, such as ideation and realisation. Fourth,' identification-negotiability' involves the cooperation of meaning, interpretation, ownership, and identity.

In the context of the thesis, these aspects appear crucial for understanding reflective practice within A&D. While these multifaceted elements have the potential to innovate pedagogy (Sharples et al., 2014), they also introduce complexities and tensions. However, these challenges also align with threshold concepts and troublesome knowledge theories (Meyer and Land, 2003; 2005), which suggest that some forms of learning, like driving a manual car, are difficult to grasp but lead to irreversible understanding once mastered. Reflective practice supports threshold learning across various fields, including child development, medicine, and healthcare (Buysse et al., 2003; Joyce, 2012; Neve et al., 2017), justifying its investigation within A&D.

Returning to Finlayson's (2015) epistemology of reflective practice, despite lacking academic precision, socio-cultural theory offers valuable contextual insights that Schön's (1983, 1987) epistemologies do not overtly address. Like Vygotsky's principle and temporality, socio-cultural theory enriches the understanding of reflective practice within A&D.

## 2.9    Paradigms of Reflective Practice

Building on the three perspectives of reflective practice (the Vygotsky principle, Temporality, and Socio-cultural Theory), Finlayson (2015) aligns these with four paradigms: 'appropriation' (learning through observation), 'transformation' (adapting knowledge to one's own repertoire), 'publication' (forming a rational understanding), and 'conventionalisation' (sharing understanding with others). Table 3 (Finlayson, 2015, p. 719) illustrates how these paradigms relate to the perspectives of reflective practice, by dividing the Vygotsky principle into three components and categorising the paradigms as phases of interaction. These are further delineated by learning type (individual or collective) and contextual status (private or public).

Finlayson endeavours to simplify the intricate relationship between epistemologies and paradigms through aligning them with shifts in reflective practice, which the researcher attempts to understand through tabulated organisation (see Table 4). Accordingly, reflective practice is perceived to fluctuate without a fixed consensus, moving from a focus on personal development to collective and professional or organisational learning. However, the criteria for including or excluding definitions of reflection in these paradigms are not clearly outlined. As shown earlier in the research's comparison of definitions of reflective practice collated from Finlayson (2015) and Marshall (2019) (Table 1, above), the breadth of nuanced interpretations of reflective practice leads to no clear consensus. Finalyson (2015) culminates their review with a redefined stance that is somewhat ambiguous:

> '…it is wholly dependent on the individual in the perception of reflection, rendering the idea that the idea that reflection and its definition can be categorised as 'anything goes', so long as the definition fits one of the four paradigms' (Finlayson, 2015, p.729).

This implies that reflection is a subjective process open to broad interpretation. While this stance allows flexibility, it risks making reflective practice overly vague and academically unfocused. By suggesting reflective practice can fit any paradigm based on individual interpretation, Finlayson potentially undermines the need for a more structured understanding. This ambiguity creates concerns about meaningful and consistent application in educational and professional settings, suggesting a lack of concrete criteria or guidelines.

## 2.10    Summary of Epistemic Themes and Comparative Analysis of Reflective Practice Theories

As a summary of the theoretical underpinnings of reflective practice, Kinsella (2009), Marshall (2019), and Finlayson (2015) underscore the diversity of theories contributing to reflective practice. Kinsella's (2009) critique of Schön's epistemologies (technical rationality, artistry, constructivist assumptions, tacit knowledge, and mind-body dualism) offers a comprehensive framework that addresses both technical and artistic aspects, presenting opportunities for deeper integration into design education.

Finlayson's (2015) three theoretical perspectives (the Vygotsky principle, temporality, and socio-cultural theory) introduce a socio-cultural dimension to reflective practice, advocating a more contextual and collective approach in design education. However, this stance, suggesting that reflection is subject to individual interpretation ('anything goes'), risks a vague and unfocused application, potentially

| Date | Theorist / Author | Definition | Analysis |
|---|---|---|---|
| 1938 | Dewey | 'Reflection is to look back over what has been done so as to extract the net meanings which are the capital stock for intelligent dealings with further experiences. It is in the heart of the intellectual organisation and of the disciplined mind' (Finlayson cites Dewey, 2015, p720).<br><br>'The environment in which human beings live, act and inquire is not simply physical. It is cultural as well. Problems which induce inquiry grow out of the relations of fellow beings to one another' (p720). | 'Emotive and impulsive' (p720). |
| 1975 | Schön | 'Organizations are artefacts designed for human purposes. Their effectiveness depends on their continuing redesign in response to changing values and a changing context for action. Organizational learning would then refer to this process of continuing redesign' (Finlayson cites Schön, 2015, p720). | The organisation learns from change, defined as a 'changing context for action' (p720). |
| 1985 | Boud, Keough & Walker | 'Reflection is an important human activity in which people recapture their experience, think about it, mull over and evaluate it. It is working with experience that is important in learning' (Finlayson cites Boud, Keough & Walker, p720). | 'recapturing the experience...think, mull and evaluate' (p720). |
| 1987 | Schön | 'A dialogue of thinking and doing by which I become more skilful' (Finlayson cites Schön, 2015, p721). | Thinking and doing becomes relevant as an influencer. |
| 1991 | Louden | 'Reflection is a mental process which takes place out of the stream of action, looking forward or back to actions that that have taken place' (Finlayson cites Louden, 2015, p721). | Relevance of rationalisation is key. |
| 1993 | Reid | 'Reflection is a process of reviewing an experience of practice in order to describe, analyse, evaluate and inform learning about practice' (Finlayson cites Reid, 2015, p721). | 'reflection is a formal review of an experience; (p721) |
| 1995 | Johns | 'It is a personal process that usually results in some change in their perspective of a situation or creates new learning for the individual' (Finlayson cites Johns, 2015, p721). | Emphasis on new learning for the practitioner. |
| 2004 | Tate & Mills | 'We learn through critical reflection by putting ourselves into the experience and exploring personal and theoretical knowledge to understand it and view it in different ways' (Finlayson cites Tate & Mills 2015, p722). | Suggests that individuals can view things from varied perspectives and in different ways that broadens understanding outwards. |
| 2009 | De Dea, Roglio & Light | 'To stop, think, and reflect profoundly on their experiences, as it is important to appreciate the past before using the present to obtain a better future' (Finlayson cites De Dea Roglio & Light, 2015, p722). | |
| 2011 | Hegarty, Kelly & Walsh | 'Reflection on activities undertaken in the workplace, that such activity can be deconstructed, to reveal the multi-layered character of knowing-in-the-world, and therefore the intrinsic sophistication involved in undertaking professional roles' (Finlayson cites Hegarty, Kelly & Walsh, 2015, p722). | |
| 2012 | Nilsen, Nordström & Ellström | 'Reflection is typically described as a mechanism to translate experience into learning, by examining one's attitudes, beliefs and actions, to draw conclusions to enable better choices or responses in the future' (Finlayson cites Nilsen, Nordstrom & Ellstrom, 2015, p722). | |

Table 4.        Definitions and changes to Reflective Practice 1938-2012.

| | Paradigm or Phase of Interaction | Learning Style | Contextual Studies | Temporality | Socio-Cultural Theory |
|---|---|---|---|---|---|
| | Appropriation | Collective | Public | Embodied Self | Situational |
| | Transformation (of an organisation) Appropriation (of self) | Collective | Public Suggested by Finlayson to be Private | Embodied Self | Situational Suggested by Finlayson to be Individual |
| | Publication | Individual | Private | Autobiographical | Individual |
| | Publication (a shift from previous Appropriation) | Individual (from Collective) | Private | Autobiographical | Individual |
| | Publication | Individual | Private | Autobiographical | Individual |
| | Conventionalisation | Individual | Public | Social Self | Individual |
| | Publication | Individual | Private | Autobiographical | Individual |
| | Conventionalisation | Individual | Public | Social Self | Situational |
| | Publication | Individual | Private | Autobiographical | Individual |
| | Appropriation | Collective | Public | Embodied self | Situational |
| | Transformation | Collective | Private | Social self Suggested by Finalyson to be embodied | Individual |

undermining the need for more structured understanding. Despite this ambiguity, socio-cultural learning theories like COP (Wenger, 1998) highlight the influence of situated learning on reflective practice, an area not fully addressed by Schön (Eraut, 2010; Fenwick, 2001). Finally, Marshall (2019) adopts a more process-oriented view through four themes (cognitive, integrative, iterative, and active) derived from a systematic synthesis of qualitative research. However, these themes are critiqued for having limited connection to professionalism and design-specific contexts. The analysis of various models of reflective practice, such as Schön's (1983, 1987) two-stage model and Brookfield's (1998) four lenses, underscores the diversity in the field. However, references to design were scant and the emphasis on written reflection suggest that Schön's framework, with its strong association with design, remains the most suitable theoretical foundation for reflective practice in this context.

As this examination concludes, the final theme explores the concepts of diffraction and reflexivity, offering critical perspectives that could further enrich reflective practice in design education.

## 2.11    Diffraction and Reflexivity

The varied theories explored in this chapter reveal no clear consensus on reflective practice. However, Haraway et al. (2000) suggest that epistemology often presents a reductionist and reflexive view, proposing a shift toward a diffractive methodology instead. Diffraction, rooted in quantum physics, explores how differences emerge and interact, metaphorically represented by the patterns created when ripples converge on water (Haraway, 1997). Barad (2007) extends this concept into an epistemological, ontological, and ethical framework, focusing on the entanglement of human and non-human relations. Reflective practice, with its multiple, overlapping epistemologies, can thus be seen through a diffractive lens, where complex interactions between ideas create new patterns of understanding. This shift from Schön's (1983) relativist stance to a more realist interpretation aligns with epistemological pluralism in current HE (Andreotti, 2010; Major, 2011), and the previously mentioned need to future-proof design education (Brosen et al., 2023)

Diffraction offers an alternative to traditional reflection. Hill (2017) argued that while reflection often involves reproduction (mirroring) or resolving an obstacle, diffraction suggests movement and change, fostering interference and intra-active practices. Barad (2007, p.33) introduces intra-action as the 'mutual constitution of entangled agencies,' highlighting how entities do not pre-exist their interactions but are instead co-constituted through them in this view, which is not static but active, constantly evolving and reshaping. This notion resonates with the dynamic and

iterative nature of design practice (Hong and Choi, 2011; Orr and Shreeve, 2019), where actions and outcomes are continually interwoven, reflecting a more fluid approach to reflective practice.

This diffractive perspective contrasts with Schön's (1983, 1987) traditional models, which have been critiqued for lacking reflexivity and socio-political awareness (Usher et al., 1997; Smyth, 1989). Reflexivity, as discussed by Archer (2003) and Giddens (1991), involves individuals' critical engagement with their thought processes and emotional responses, highlighting the tensions within current socio-political contexts. Unlike Finlay's (2008) proposition that reflection and reflexivity are separate, diffraction integrates these concepts on a continuum, with reflection at one end and reflexivity at the other. This integration acknowledges the need for a contemporary awareness of the socio-political dynamics within HE (Olssen, 2016; Hayes, 2021), encouraging a more critical and holistic view of reflective practice.

Returning to the comparison of diffraction with reflection, Bozalek and Zembylas (2017) argued that reflection often leads to 'sameness' by merely looking backward and forward. In contrast, diffraction involves recognising differences and the potential for new insights. Hill (2017) conceptualises diffractive practice as a twofold pedagogy, involving 'readings' of material practices that encompass multiple iterations involving students, instructors, and assignments. This aligns with design education's emphasis on iterative and experiential learning. However, diffraction's focus on textual or vignette formats (Jenkins et al., 2021) may overlook the visual and artefact-focused methods prevalent in A&D, which are central to how reflective practice is often enacted in these disciplines.

There are also potential challenges with diffraction. Terms like 'entanglement' and 'interference' can carry negative connotations, potentially discouraging engagement. Reflective practice already suffers from misunderstandings and limited participation (Clegg et al., 2002; Hargreaves, 2004). Generic definitions of these terms often suggest difficulty and unwanted involvement (Cambridge University Press, 2022), potentially overshadowing the holistic nature of reflective practice that encompasses both positive and negative experiences. While diffraction offers insightful extensions to reflective practice, it may be necessary to first understand traditional reflective theories before fully embracing a diffractive methodology in design education.

This final section culminates the comprehensive review of the theoretical underpinnings of reflective practice. A summary is provided next for clarification and association with the study's conceptual framework for further acuity.

## 2.12 Summary of the Theoretical Frameworks: Reflective Practice

This chapter reviewed key theoretical frameworks of reflective practice, highlighting their relevance to design education. Foundational theories by Dewey and Schön were central to this analysis, with a particular emphasis on Schön's concepts of reflection-in-and-on-action. These frameworks are instrumental for understanding the reflective processes essential to design, though critiques about their socio-cultural and reflexive dimensions were noted. Design's under-representation in reflective practice literature was also a key observation, despite its critical role in fostering innovation and addressing societal challenges.

Perspectives like diffraction and reflexivity were introduced as potential enrichments to traditional reflective models. However, these advanced concepts present challenges when applied in design education. This exploration underlines the need for a more integrated approach to reflective practice, guiding the study's inquiry into how it can be better conceptualised and applied in design contexts, which leads into reappraising the thesis research questions.

### 2.12.1 Reviewing the Research Questions (1)

The research questions serve as a structured inquiry into how reflective practice is understood and applied within HE A&D, which are influenced by relevant theoretical frameworks:

> **Research Question 1** examines how staff interpret reflective practice, drawing from foundational theories (Schön, 1983, 1987; Dewey, 1933) and more contemporary perspectives (Kinsella, 2009; Finlayson, 2015). Understanding these frameworks will help assess whether staff align with theoretical constructs like reflection-in-action (Schön, 1983) or tacit knowledge (Polyani, 1967) in design contexts.

> **Research Question 2** explores the perceived purposes of reflective practice in A&D. Theories such as Kolb's (1984) Experiential Learning Cycle and Schön's (1983) reflection models suggest that reflective practice enhances creative thinking and problem-solving, particularly in real-world contexts (Margolin and Buchanan, 1995). This question seeks to explore whether educators view it as essential for fostering creativity or for achieving broader educational goals such as professional growth or employability.

> **Research Question 3** examines how reflective practice is integrated into the curriculum. Beyond models like Schön's (1983) reflection-in-action, the question will investigate how specific teaching

strategies, such as the use of reflective journals or collaborative critique sessions (Moon, 2013; Orr and Shreeve, 2019) are used to embed reflective methods in design education. This question aims to determine whether these methods are consistently and effectively implemented.

**Research Question 4** focuses on the distribution of responsibility for teaching and assessing reflective practice. While frameworks suggest shared responsibility (Boud, Keogh, and Walker, 2013), this question examines how this plays out in the collaborative, interdisciplinary context of design education (Orr and Shreeve, 2019).

While earlier frameworks such as Boud, Keogh, and Walker (2013) propose shared responsibility for teaching and assessing reflective practice, more recent discussions highlight a shift towards distributed leadership models (Smith, 2022). This perspective acknowledges that responsibility for reflective practice is not only shared but also diffused across different roles within the institution, involving formal and informal leadership structures. Smith (2022) argues that reflective practice can serve as a mechanism for professional learning and leadership development, reinforcing the idea that educators across disciplines contribute to a reflective culture in ways that extend beyond assessment roles. The evolving understanding of distributed leadership, particularly in creative education contexts, provides a more nuanced framework for interpreting the findings of this research.

Overall, these questions, grounded in theoretical insights, guide an inquiry into the challenges and opportunities for embedding reflective practice in design education.

The next chapter, the Literature Review, will further explore empirical studies, contextualising reflective practice in design and identifying key gaps in the literature.

# Chapter 3.
# Literature Review

This literature review is structured into four sections that critically examine empirical research related to reflective practice within design education.This analysis builds upon the theoretical foundations of reflective practice established in the previous chapter. The first section, *Key Themes and Trends in Art and Design (A&D)* explores the impact of the design studio environment, critical discourse, experiential learning, tacit knowledge, and multimodal approaches in shaping reflective practices in A&D education. Second, *Theoretical Frameworks in Relevant Empirical Literature*, extends the discourse in Chapter 2, Theoretical Frameworks supporting reflective practice, and examines theories applied in design education, including Schön (1983, 1987) and Dewey's (1933, 1938) experiential learning epistemologies. Third, a *Critical Review of Literature* provides an analysis of research of reflective practice within A&D disciplines. It identifies the benefits, challenges, and limitations of current research, highlighting the need for discipline-specific studies and innovative methodologies. Finally, *Gaps and Future Directions* identifies limitations in the literature, including the need for discipline-specific research and outlines opportunities for further research to advance reflective practice in design education. To ensure a comprehensive review, a detailed search strategy was employed, encompassing multiple databases, key texts, and bibliographies on a global scale (Appendix 3). This approach provides a robust foundation for the analysis. Through this structure, the chapter lays the foundation for this study's exploration of the understanding of reflective practice in a specific design department.

## 3.1    Key Themes and Trends in Art and Design

Reflective practice has long been recognised as an essential component of professional development, particularly in creative disciplines. In the context of UK higher education (HE), the exploration of reflective practice within a design department necessitates an understanding of its physical, psychological, and pedagogical dimensions. Building on the themes introduced in Chapter 1, Introduction, this literature review critically examines key themes related to reflective practice, emphasising its application in the design studio, the interplay with critical discourse, the integration of experiential and tacit knowledge, and the multimodal approaches that facilitate reflection in A&D education (Schön, 1983, 1987; Sims and Shreeve, 2012; Orr and Shreeve, 2019).

### 3.1.1    Influences on Reflective Practice in Art and Design Education

Reflective practice is central to HE, particularly in fostering student progression,

employability, and professionalism for both students and academics (Platt, 2014; Smith and Walker, 2024). Government-led initiatives like the Dearing Report (1997) and the Augar Review (2019) have reinforced the importance of reflective practice, particularly within Personal Development Planning (PDP), to promote critical self-analysis and professional growth (James, 2007). These reforms have significantly impacted A&D education, emphasising experiential learning and the integration of reflective practice into curricula.

In the context of A&D, educators play a crucial role in implementing reflective practice, aiming to foster environments that encourage practical experimentation and critical examination of diverse concepts (Orr and Shreeve, 2019). Reflective practice is not only vital for student growth but also for the professional development of educators themselves (Biggs et al., 2022; Whitchurch and Gordon, 2010). However, the advancement of teaching-focused academics in A&D is often hindered by the lack of a clear framework for scholarship and career progression, creating barriers to fully integrating reflective practice into academic culture (Smith and Walker, 2024). Addressing these challenges requires a comprehensive approach that supports educators' professional growth and enriches their reflective practices, which this study serves to address,

### 3.1.2 The Design Studio: Physical and Psychological Impact

The design studio, as both a physical and psychological space, plays a pivotal role in the enactment of reflective practice. As Schön (1984, 1985) posited, the studio is an environment where learning through reflective practice is holistically integrated, involving physical, cognitive, and performative methods. The design studio mimics real-world professional environments, as recommended by the Dearing Report (1997), which highlighted the importance of PDP to manage the complexities of professional practice.

The studio's materiality, the layout, the presence of A&D materials, and the ephemera that surround the workspace, significantly influences reflective practice. Clegg (1995) notes that these elements contribute to the reflective process by providing a context that stimulates thinking and creativity. Similarly, the studio is a site of ongoing critique and reflection, where students engage in the iterative process of designing, receiving feedback, and refining their work. This process, as described by Schön (1984), is vital for developing reflective practitioners. However, the design studio is not without its challenges. Ochsner (2000) and McLaughlan and Lodge (2019) highlight the psychological dynamics at play, particularly the power relations between students and tutors and the emotional impact of critique. The studio can be a place of both inspiration and anxiety, where the dual forces of

creativity and fear shape the reflective experience. This duality underscores the need for a nuanced understanding of reflective practice that goes beyond the physical space to consider the psychological and emotional dimensions of learning in the studio.

Moreover, the evolving nature of design education demands an adaptive studio environment that can cater to both collaborative and individual learning. Blythman, Orr, and Blair (2007) emphasise that the studio must evolve to accommodate fluctuating needs, such as providing space for independent reflection as well as collaborative critique sessions. This adaptability is crucial in fostering an environment where students feel both supported and challenged. The dual function of the studio, as a place of personal creation and collective evaluation, requires careful management to ensure that the pressures of critique do not overshadow the creative process. This balance is essential in promoting reflective practices that are productive and emotionally sustainable. Bruno and Dell'Aversana (2018) endorse this, emphasising that the learning environment plays a critical role in developing reflective practice, supporting professional practice simulation, integrating thinking and doing, and are particularly effective in promoting meaningful and reflective learning. This underscores the importance of the studio as a physical and dynamic environment that stimulates cognitive and practical engagement (Blaswick, et al., 2022), aligning with Schön's (1983) theories of reflective and professional practices.

In light of these factors, it is evident that the studio is more than just a physical space, it is a complex ecosystem where material, cognitive, and emotional elements converge to facilitate reflective practice. The success of this environment hinges on understanding and navigating the delicate interplay between these elements to foster a reflective practice that prepares students for the realities of professional practice.

## 3.1.3    Critical Discourse and Reflexivity

Reflective practice is often intertwined with critical discourse, a relationship that can sometimes blur the distinctions between the two. Reflexivity, as discussed in Chapter 2. Theoretical Frameworks, involves the researcher and participant's subjective engagement with the research process, is a key component of reflective practice (Archer, 2010). Shacklock and Smythe (1998) argued that reflexivity encompasses personal, historical, and professional experiences, making it a complex yet integral part of knowledge creation. Critical reflective practice, as Thompson and Pascal (2012) suggest, extends beyond simple reflection to incorporate a deeper sociological and theoretical understanding. Brookfield (1995) and Bharuthram (2018) assert that critical reflection enables a more profound form of reflective practice, one that challenges assumptions and promotes critical thinking. While Moon (2004) focuses on critical thinking, they caution that it is often poorly

understood in HE, which can contribute to confusion about its role within reflective practice. This lack of clarity poses a challenge to the effective integration of critical discourse with reflective practice in A&D education.

The need for developing critical reflection is particularly evident in fields like fashion education, as investigated by James (2007). In this study, the challenges faced by fashion educators in fostering critical reflection among students are highlighted. Findings indicate that while reflection was often embedded in non-textual activities, such as sketch-booking and verbal critique, there was a lack of explicit instruction in critical reflection. This gap underscores the need for more structured approaches to teaching criticality in A&D, where the fast-paced and highly visual nature of the work can sometimes overshadow deeper critical engagement. Moreover, the consideration of design dogmas, as rigid frameworks that facilitate reactionary design thinking, further complicates the teaching of critical reflection. As Hesseling (2016) and Lee Smith (2019) argued, these dogmas can limit creative thinking and innovation if left unchallenged. Design educators are tasked to encourage risk-taking (Lohiser and Puccinio, 2019), advocating for pushing boundaries and questioning established norms. This approach is necessary for innovation, yet requires a robust understanding of critical reflection, which many educators find complex to comprehend (Mohammed et al., 2022; Šarić and Šteh, 2017). The tension between adhering to traditional design frameworks and encouraging critical discourse highlights the importance of integrating critical reflection into the curriculum. As an example, an innovative method to enhance critical reflection, demonstrated by Harvey and Oliver (2024), involves using haikus as a tool for engaging students in critical reflection. This traditional yet creative approach, applied in the context of social work education, can be adapted to design education, offering an alternative means for articulating and reflecting on design practice experiences. This study also emphasises the importance of creating safe learning environments to promote such engagement, which is critical for the effective development of reflective practices.

In A&D education, critical reflection should not only focus on the final outcome but also on the processes and frameworks that underpin design thinking (Schoorman et al, 2023). By encouraging students to critically engage with these processes, educators can help them develop a more nuanced understanding of their work and the broader context in which it exists. This approach aligns with the QAA Benchmark Statements (2019), which emphasise the importance of critical thinking and self-awareness in HE. However, to fully realise the potential of critical reflection, educators must provide clear definitions and distinctions, ensuring that students can effectively navigate the complex interplay between reflection, reflexivity, and critical discourse.

### 3.1.4  Experiential Reflective Practice

Experiential learning is central to reflective practice in A&D, which supports the pervasive reference to this pedagogy throughout the chapters so far discussed, where physical and cognitive interactions are fundamental to the design process (Barrett, 2007; McLaughlan and Lodge, 2019). Dewey's (1933, 1958a) concept of reflective thinking underscores the importance of experience in shaping reflection, particularly in creative disciplines where making and doing are integral to learning and research (Vaughan et al., 2008; Candy, 2020; Corazzo et al., 2020; Dorst and van Overveld (2009). Furthermore, Dewey (1933, p.18) emphasised that reflective thought arises from 'active, persistent and careful consideration of any belief or supposed form of knowledge' linking to the practical, processual nature of A&D education. For example, Barrett (2007) and Buchanan (2009) highlight the significance of mind-and-body dualism and sociocultural contexts in A&D practice, which contribute to what Markauskaite and Goodyear (2016) describe as epistemic fluency. This fluency, or feedback loop, is essential for critical reflection, enabling practitioners to engage with design practice on multiple levels including cognitively, emotionally, and socially. In this context, experiential learning allows for a holistic integration of knowledge and practice, where professionals and students can explore and refine ideas through iterative cycles of making, critiquing, and re-making.

However, the pressures of academic research and professional practice can complicate the reflective process. For example, the Research Excellence Framework (REF, 2024), a national assessment in UK HE, evaluates the standards and impact of academic research. This places demands on A&D staff to produce research outputs that often do not align with traditional forms of artistic expression. Savage et al. (2021), focusing on Welsh academics, highlight the difficulty of balancing artistic exploration with the need to produce quantifiable research outcomes, which can conflict with the open-ended, exploratory nature of experiential learning. Similarly, Corazzo et al. (2020), examining the perspectives of English and Scottish design academics, suggest that deeper reflection on the research dimensions of A&D practice is necessary to reconcile these tensions. This deeper reflection supports the development of reflective practitioners, aligning with Schön's (1983) concept of professional reflective practice. This involves not only reflecting on the outcomes but also critically engaging with the processes that lead to those outcomes, fostering a more nuanced understanding of how experiential learning can contribute to both academic research and professional practice.

The integration of reflective practice within experiential learning must consider the emotional and psychological dimensions of the creative process. Shreeve (2011) highlights the challenges faced by artist-teacher-researchers in balancing creative

practice and academic roles, and specific differences between art and design are unacknowledged. Reflective practice must be adaptable to support practitioners in navigating these complexities while fostering deep engagement with the experiential aspects of design. By prioritising reflection alongside output, A&D educators can cultivate holistic reflective practitioners.

## 3.1.5   Tacit Knowledge and Reflective Practice

As discussed in Chapter 2, tacit knowledge is crucial to reflective practice in A&D education. Polanyi's (1966) theory supports how A&D practitioners often use implicit knowledge that is not easily articulated. This section explores how this tacit knowledge is expressed and integrated into reflective practice, focusing on empirical methods and the challenges involved.

Reflective practice serves as a means to make the implicit explicit, turning tacit knowledge into praxis (Barrett, 2007). This process is crucial in A&D, where much of the skill and intuition that practitioners develop over time cannot be easily verbalised or codified (Sims and Shreeve, 2012). However, the complexity of tacit knowledge poses significant challenges for both teaching and research. Friedman (2008) argued that the ambiguity inherent in tacit knowledge can make it difficult to integrate into rigorous research contexts. This challenge is particularly acute in A&D, where the speculative nature of design work often resists straightforward theorisation (IDEO, 2024a, 2024b).

Despite these challenges, empirical research suggests several methods for eliciting and communicating tacit knowledge through reflective practice. Rogers (2008) proposes collaborative drawing and dialogic interaction to facilitate the expression of tacit knowledge, helping bridge the gap between the internalised, embodied knowledge of the practitioner and the need to externalise and communicate with others. Budge (2016a, 2016b) further illuminates the importance of corporeal practice, or engaging the body in reflection, as a way to develop and communicate tacit understanding through making practices. This research underscores the need for educators to acknowledge and identify methods to effectively explicate and share embodied and tacit knowledge with others.

The importance of reflective practice in making tacit knowledge more accessible is evident in the personal practices of artist and designer-academics. Budge (2016a) notes that the ability to convey tacit knowledge effectively has broader implications for practice-based education. This highlights the need to create learning environments that support both the articulation and development of tacit knowledge. Educators in A&D must therefore be not only skilled practitioners but

Figure 4.     Petra (black) / AR (red). Reproduced from Rogers (2008, p.59). Exploring
              Reflective Practice (PhD thesis). Reproduced with permission from the author.

Figure 5.     Belinda (black) / AR (red). Reproduced from Rogers (2008, p.69). Exploring
              Reflective Practice (PhD thesis). Reproduced with permission from the author.
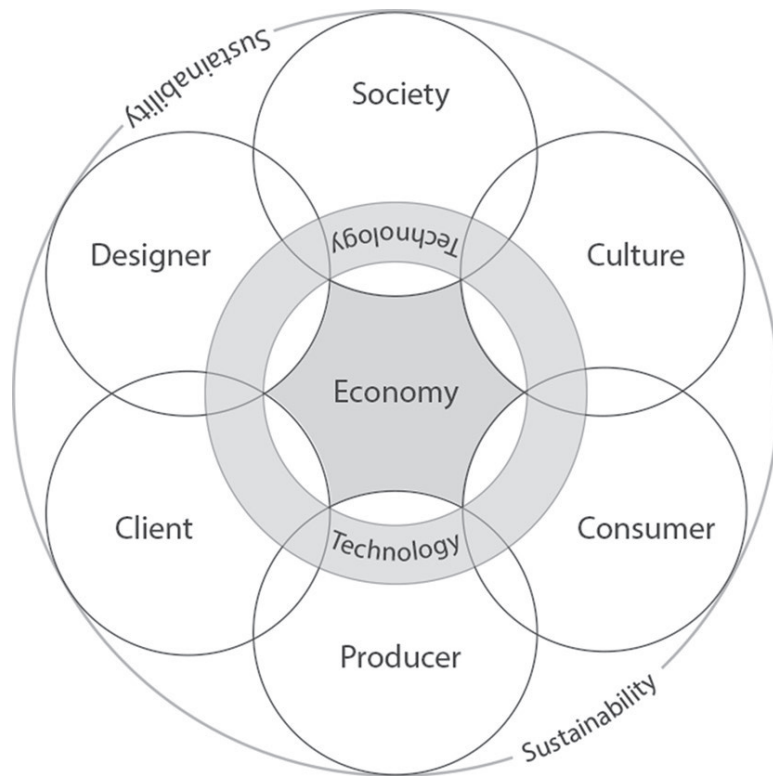
Figure 6.       Visual communication design developed for this study. Reproduced from Ali (2020, p.5 of 16). Reproduced with permission from the author.

also effective reflective practice facilitators who can guide students in making the implicit aspects of their learning processes more explicit.

In conclusion, while the complexity and ambiguity of tacit knowledge present challenges for A&D education, reflective practice offers a pathway for articulating this often-unspoken understanding. By employing methods such as collaborative drawing, dialogic interaction, and corporeal practice, educators can help students navigate the intricacies of tacit knowledge, contributing to their development as reflective practitioners.

## 3.1.6   Visual Reflective Practice

Given the visual nature of A&D, it is surprising that visual methods of reflective practice have not been more extensively researched or utilised in HE. Visual culture permeates every aspect of society and A&D practice, from sketches and diagrams to digital media and social networks (Ehrlich, 2021; Mirzoeff, 2012). Schön's (1992) notion of design as a reflective conversation with the materials of the situation is particularly relevant, underscoring the critical role of visual thinking in reflective practice in A&D education.

Research by James (2007) and Rogers (2008) supports the use of visual methods to facilitate reflection in A&D, particularly in contexts where verbal or textual methods may fall short. James' study in fashion education highlights how sketchbooks serve as powerful tools for reflection, not just creative outlets. Rogers similarly advocates the effectiveness of drawing in reflective conversations, suggesting the visual dimension is crucial for fully engaging with and understanding the creative process. Figures 4-5 show the use of different colours between strangers (leading the dialogue using black) and Rogers (2008, p.59 and 69) (using red) to effectively communicate thoughts and feelings.

Ali (2020) extends these findings by exploring how visual methods can enhance understanding and foster innovation in design education, emphasising that critical reflection in design is not limited to verbal or written formats. Rather, it can be enriched through visual and dialogic practices, thereby highlighting the flexible and multifaceted nature of visual reflective practice in HE (Figure 6).

However, integrating visual methods into reflective practice presents challenges. Traditional forms of assessment often prioritise textual endpoint outputs (Forssyth et al., 2015) which is at odds with A&D's iterative non-textual modes of assessment and reflection like sketching and studio critique (Orr and Shreeve, 2019). Furthermore, the differences in Rogers (2008) and Ali's (2020) exemplify the

**Model versus drawing**

A series of trial-and-error sketch models and prototype models were produced. The models had an experimental purpose and were made to test and describe the spaces in motion. The models were fully operational, with moveable flaps, doors and hatches, so that each situation could be tested and its spatial organisation refined.

For the fabrication process, the drawings were inadequate to describe fully the three-dimensionality and operation of the piece. Instead, a bigger 1/10-scale cardboard model was made to describe to the builder what the structure would look like and how to build it. This model was used on site throughout the construction process and revisions were discussed and tested directly on it. [fig. 27–30]

**Still-frame animation**
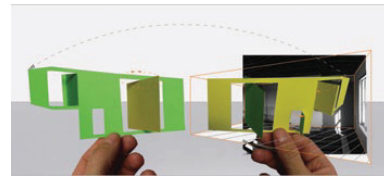
28
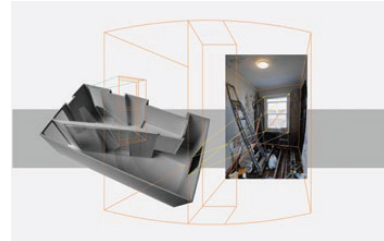
29
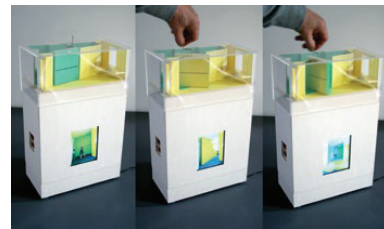
30

PAUL BAVISTER                                                                        AUDIALSENSE

**2. Acoustic research with acousticians, testing, surveying and developing performance parameters of sites that are not traditional acoustic spaces**

Musicity

For the Musicity, different processes and technologies were developed and employed to choose, survey and simulate specific spaces for musicians to respond to acoustically. The aim was to enable musicians and composers to write for the acoustics of a specific space and generate a unique piece of music that is intrinsically linked to the site.

First, a series of spaces were selected for use by musicians, chosen for specific qualities that may positively inform a creative process. Once the spaces were selected, they were acoustically tested: in some cases (Musicity Southwark 2017 and Musicity x MEMU) by a balloon-pop impulse response and in others (Musicity Southwark 2018 and Musicity x Culture Mile 2019) by a team of world-leading acoustic consultants at Arup. The acoustic test is commonly used in surveys of concert halls and other acoustically critical spaces. For the tests

22

Figure 7.        101 Spinning Wardrobe. Reproduced from Storp Weber Architects (2015, p.31). Bartlett Design Research Folios. Reproduced with permission from Storp Weber Architects.

Figure 8.        Reproduced from Bavister (2022, p.34). Bartlett Research Portfolios. Reproduced with permission from the author.

63

different outcomes that can be achieved, potentially contributing to difficulties to not only assess, but analyse reflective practice.

Ultimately, there is a need for greater research into how visual methods can be effectively integrated into reflective practice, particularly in ways that align with the disciplinary norms and expectations of HE (Machost et al., 2023).

Notably, Gelmez and Tüfek (2022) emphasise that while textual reflection is not traditionally regarded as a signature pedagogy in design education, it remains essential in union with visual practice. For example, writing supports the defence of visual design-research outputs, such as Research Excellence Framework portfolios (REF), which communicate the details of visual practice outputs that require annotation to articulate their impact, thus demonstrate the necessity of integrating multimodal design practices (Figure 7-8).

Smith (2022) also underscores the potential of visual methods to enhance research outputs in academic settings (Figure 9). Curatorial projects demonstrate the relevance of visual practice to support faculty and encourage reflective practice. Smith's leadership approach, described as distributed and organic, emphasises collaboration and recognition of colleagues' work, showing how visual methods can be integrated into reflective practice to foster innovation and community within HE. Smith's work suggests that visual methods not only align with A&D norms but also enhance the visibility and impact of educational research. This approach challenges the dominance of text-based reflections, proposes a more balanced and multimodal approach to reflective practice in A&D.

Notably, Rogers' (2008) evidences reflection-in-action (Schön, 1983) during data gathering; Bavister (2022) and Strop Weber (2022) reveal reflection-on-action (Schön, 1987) in the submission of portfolios that documents research process and impact (REF, 2024), and Smith (2022) shows reflection-for-action (Schön, 1975), in attempts to develop academic leadership through promoting staff research. Thus, textual formats alongside visuals serve as powerful tools to communicate a breadth of reflective practices that support professionalism (Schön, 1983).

This visual-textual reflective practice also enhances students' design processes by fostering deeper cognitive engagement (Melles and Lockheart, 2012). Passarinho at al. (2013) investigated e-portfolios as a visual essay that dynamically reveals layers of meaning incorporating aesthetic, contextual and emotional terrains, proposed to support reflective practitioner development. Sophisticated examples (Figure 10) sit beside annotations that highlight successfully gaining employment, which supports reflection-in-action and professionalism (Schön, 1983).

from a funded institutional memory research project, exploring how art school teaching practices developed over a specific period of time. The third exhibition, *Education in Progress* (2019), brought together and surfaced learning from our university's teaching scholar's programme, an educational development initiative that funds teaching staff to conduct applied pedagogic research into their own teaching contexts. The most recent show, *Academics, in Practice* (2020), was a degree show for graduating students from my MA academic practice course to articulate aspects of their dissertation enquiries.

This pattern of exhibitions evolved organically; they were unconnected as projects. Despite this there are two significant ties that bind them. The first is thematic: they have all been attempts to visualize educational research conducted within the university. The second is personal: I conceived the ideas and worked with others to bring them into being. Beyond this point, the precise exhibition content is superfluous. The remainder of this article will be used as a tool of enquiry, to interrupt this nascent curatorial academic development practice, using aspects of leadership theory as a lens through which to critically reflect upon the work as leadership, and therefore develop its capability as change agent (Figures 1–4).



*Figure 1:* Practices of Enquiry *exhibition, 2016. Colour photograph. London. Courtesy of Catherine Smith.*



*Figure 2:* Lost and Found *exhibition, 2018. Colour photograph. London. Courtesy of Elliott Burns.*

Figure 9.     Example of curated teaching practice as reflective practice. Text and image reproduced from Smith (2022, p.101). Reproduced with permission from the author and photographers: Elliot Burns and Rachel Marsden.

Figure 10.    Extract from: A visual essay within an e-portfolio. Reproduced from Passarinho, et al. (2013, p.409). Reproduced with permission from Intellect Ltd.

The interplay between textual and visual methods highlights the broader potential of multimodal reflective practices, which integrate both to capture the complexity of design thinking.

## 3.1.7    Verbal Reflective Practice

Verbal reflection, particularly through critique (the 'crit'), is central to A&D education (Sims and Shreeve, 2012). The crit includes presenting work and engaging in dialogue with tutors and peers, fostering both in-action and post-action reflection (Schön, 1983, 1987). While valuable for developing reflective practitioners, crits can also cause anxiety and impact students' confidence (Blair, 2006). The tutor's role in facilitating these discussions is critical, as their approach can either support or hinder reflective practice.

In addition to crits, structured verbal reflection, such as facilitated discussions and questioning, promotes deeper reflection. Cardosa et al. (2014) suggest that comprehensive questioning can enhance students' ability to articulate thoughts, though time constraints limit its widespread use in large group settings.

Strategies to make verbal reflection more accessible include smaller group critiques, peer discussions, and integrating reflection into ongoing coursework. Orr (2005) and Blythman et al. (2007) highlight the benefits of peer critiques, while Özçam (2020) shows that combining verbal, visual, and written reflections can deepen conceptual thinking and improve design outcomes. Cutroni and Paladino (2023) further demonstrate that peer assessment in HE enhances reflective practice, a model that could be adapted to improve crits in A&D (Sims and Shreeve, 2012).

## 3.1.8    Textual Reflective Practice

Textual reflection, using methods such as journalling, blogging, and portfolio creation, is widely used across many disciplines (Moon, 2006), including A&D (Orr and Shreeve, 2012). Writing provides a means of documenting and articulating reflective practice, offering a tangible record of thoughts, processes, and learning. Dewey (1933, 1938) emphasises the universality of written reflection, which is commonly promoted as a key tool for professional development (Bolton, 2010; Bolton and Delderfield, 2014; Stevens and Cooper, 2023).

In A&D, however, where practice is often visual and tacit, textual reflection can present significant challenges. Doloughan (2002) argued that writing may not always be the most appropriate method for reflecting on design practice, as text

may not capture the multi-layered, metaphorical, and qualitative aspects of creative work. Additionally, the increased prevalence of neurodiversity among A&D students and academics, such as dyslexia, further complicates the use of written reflection, suggesting a need for alternative or supplementary methods (Bacon and Bennett, 2013; Damian, 2017; Symonds, 2005)

Despite these challenges, textual reflection remains an important part of A&D education, particularly in the context of academic research and professional development. Methods such as the reflective exegesis, as proposed by Shumack (2008), offer a way to integrate textual reflection with practice, supporting the development of reflective practitioners who are able to articulate and document their learning. Moreover, the integration of digital methods for reflective writing, such as blogs, has shown promise in overcoming some of these challenges. For example, Graus et al. (2022) highlight how blogs serve as an accessible and interactive platform for novice academics to engage in reflective practice, supporting the development of teacher identities. Mair (2012) highlights the effectiveness of online platforms in facilitating structured reflective writing. By allowing students to record, store, and retrieve their reflections digitally, these tools enhance meta-cognitive awareness and make the process more accessible, particularly for those who may find traditional writing methods difficult. The use of digital platforms for reflection enables a more flexible and user-friendly approach, helping students to engage more deeply with the reflective process and ultimately enhancing their learning outcomes (Doreen and Millindon, 2019). While textual reflection might not fully encapsulate the nuances of A&D practice on its own, when combined with digital tools and supplemented by visual and verbal methods, it can significantly contribute to the holistic development of reflective practitioners in this field.

### 3.1.9    Multimodal Reflective Practice

Reflective practice in A&D requires a multimodal approach, combining visual, verbal, textual, and tacit methods to capture the complexity of creative processes (James, 2007; Orr and Shreeve, 2019). This approach accommodates the diverse ways A&D practitioners think, create, and learn (Kress, 2001), reflecting the multifaceted nature of design practice. Transmediation, as discussed by Darvin (2020) as 'the process of adapting an existing text into another medium'. enhances reflective practice by encouraging shifts between different design practice modes. This process deepens reflection by providing new perspectives, a concept exemplified by Grocott's (2010) use of multimodal methods in doctoral research, including blogging, visual essays, and infographics. These methods support critical reflection and academic rigour, similar to the researcher's use of visuals in the thesis. Figures 11-14 show examples

*It was an interesting exercise, trawling through six years of practice. The instruction was to collect and code not just the research I identified with my PhD, but also the design projects I had done at my consultancy, the diagram classes I had taught, the research workshops I had run, the work at Parsons. I somewhat begrudgingly laid it out – but didn't believe for a second that it was all relevant to the 'research practice' I was framing. The first iteration of how I organised the projects had the 'extraneous' work physically marginalised. A later pass had the visual essays on a timeline with the interstitial projects in between. With each iteration I was pushed to examine my practice from another frame. This exercise, which seemed like something between a studio pin-up and a visual audit of my work, was making me see everything very differently. And I don't just mean what was revealed about my research.*

*What struck me was the actual exercise. I had spent thousands of hours designing, weeks of my time blogging, written tens of thousands of words…and yet, this exercise in a few days had turned upside down the whole way I understood my project. I didn't know whether to be embarrassed or elated that it took this exercise for me to pull far enough back from my project to really see what was there.*



**Hunch {what were we thinking}**

To state that I once hated graphic design is neither provocative, nor original. Many graphic designers before me have felt boxed in by a job that only fractionally seems to be about designing. As a student it was the verb I had fallen for—not the typefaces or the paper samplers—I fell in love with the process of creating designs; from the slow-burning hours of contemplation, the rush of possible ideas, to the focused, micro world of refinement. But with clients and production schedules dictating that I work efficiently, my design process became repetitive, my work formulaic and my job satisfaction nil. In establishing Studio Anybody my colleagues and I sought to reclaim a design process that valued speculation—an experimental, investigative space—where we hoped design could once again reside in what Clive Dilnot refers to as the 'realm of possibility'.

Figure 11.    Cursive writing as textual reflection. Produced by Grocott (2010, p.32). Reproduced with permission from the author.

Figure 12.    Documentary photograph of studio practice as an example of collaborative reflection in-action. Produced by Grocott (2010, p.70). Reproduced with permission from the author.

69
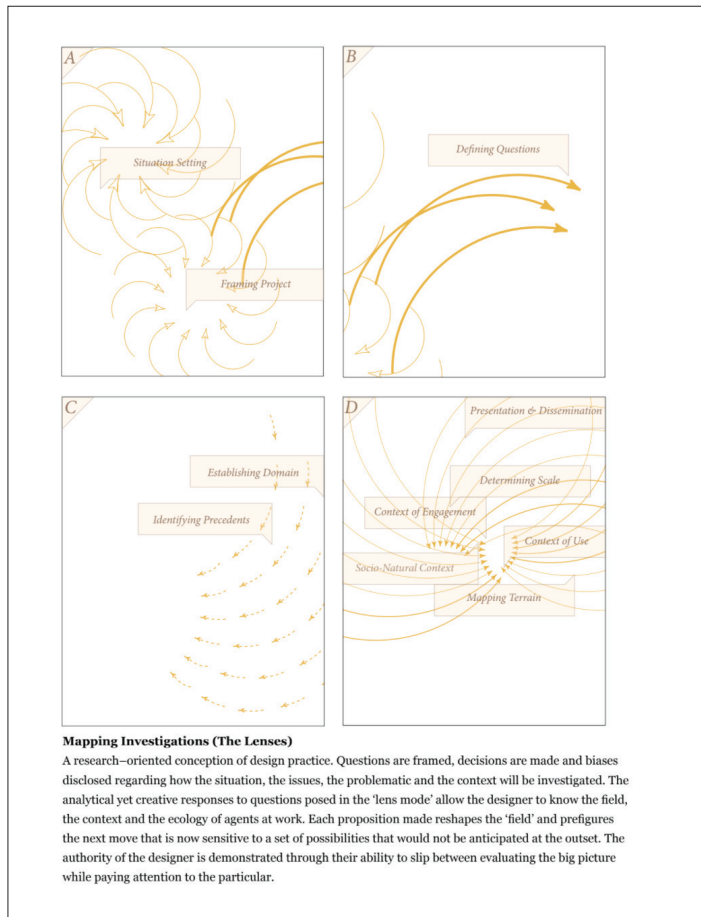
Figure 13.    Illustration and textual reflection, 'Mapping Investigations (The Lenses)'. Produced from Grocott (2010, p.87). Reproduced with permission from the author.

Figure 14.    Infographic-reflection showing 'Multiple Frames and Multiple Perspectives'. Produced from Grocott (2010, p.179). Reproduced with permission from the author.

Figure 15.    First idea map. Reproduced from Sousanis (2015). Unflattening (p.194).
              Reproduced with permission of the author and Harvard University Press.
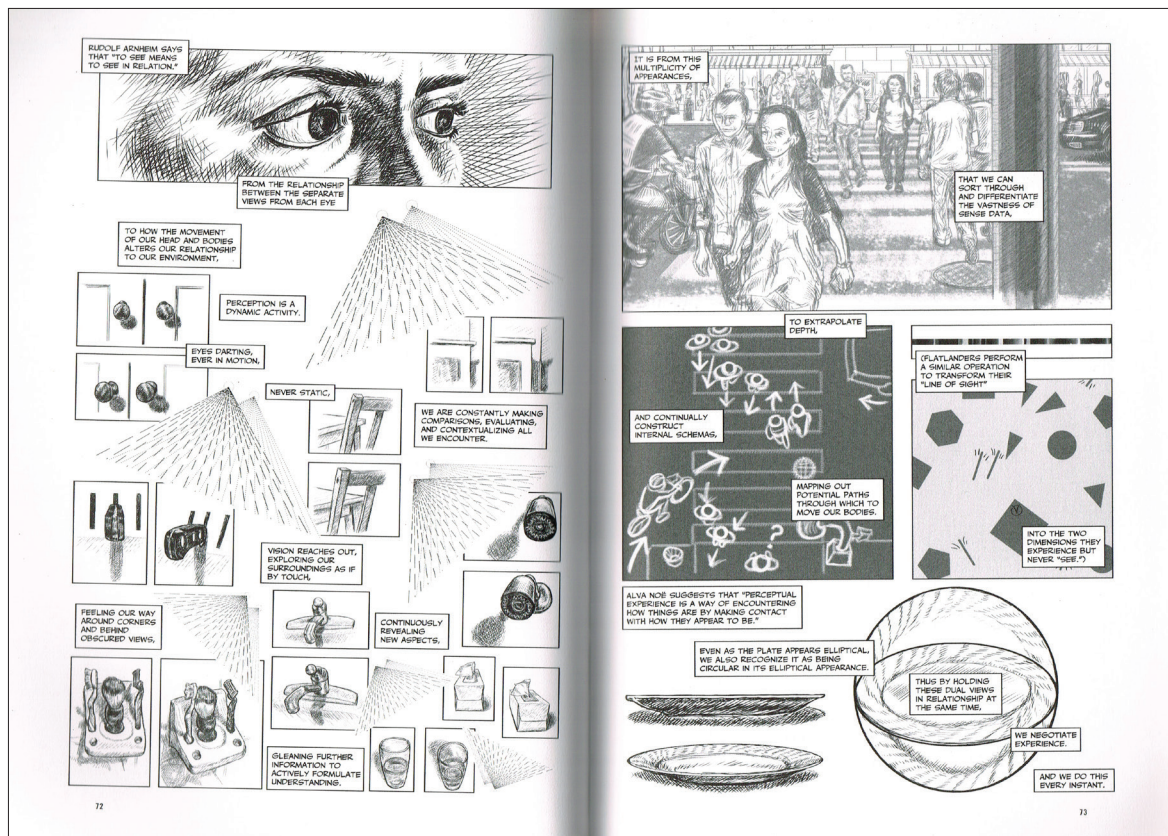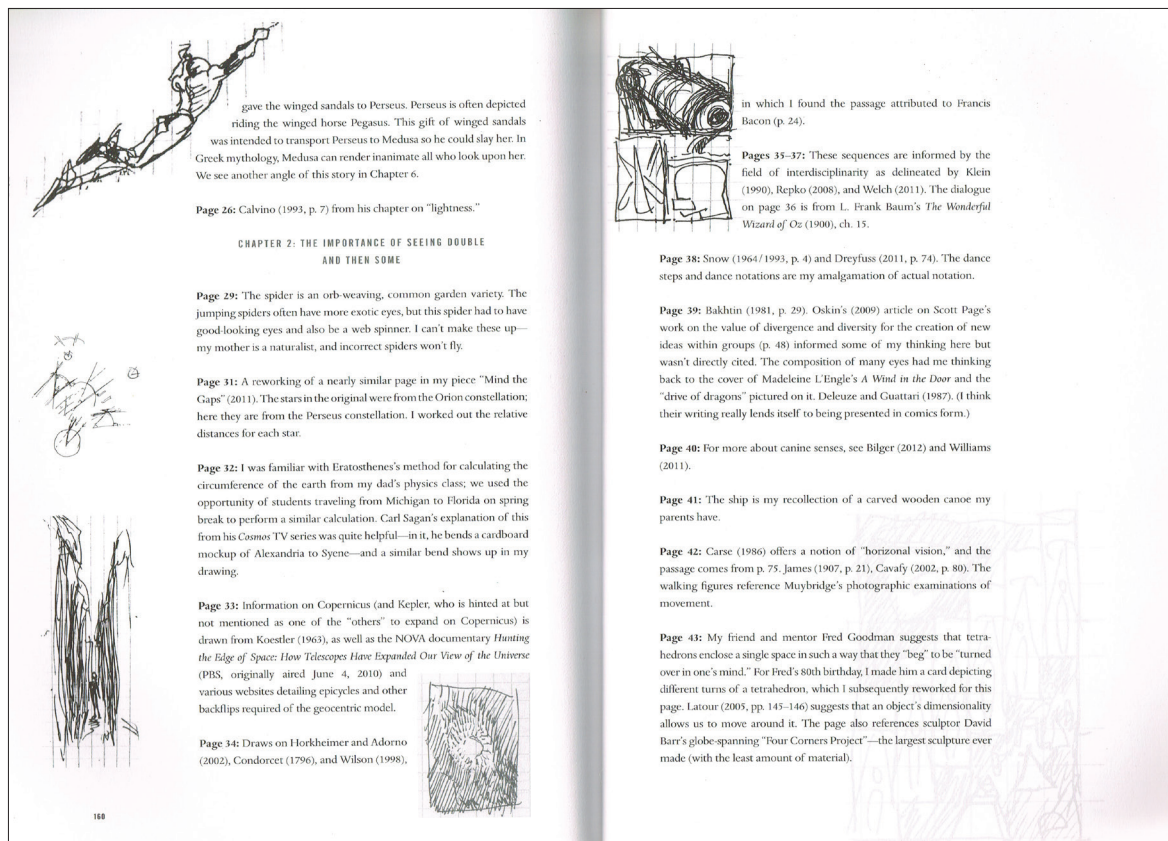
Figure 16.    Reflective notes. Reproduced from Sousanis (2015). Unflattening (pp.160–161). Reproduced with permission of the author and Harvard University Press.

Figure 17.    Extract from Chapter 4. From Sousanis (2015). Unflattening (p.72-73). © Harvard University Press. Reproduced with permission of the author and Harvard University Press.
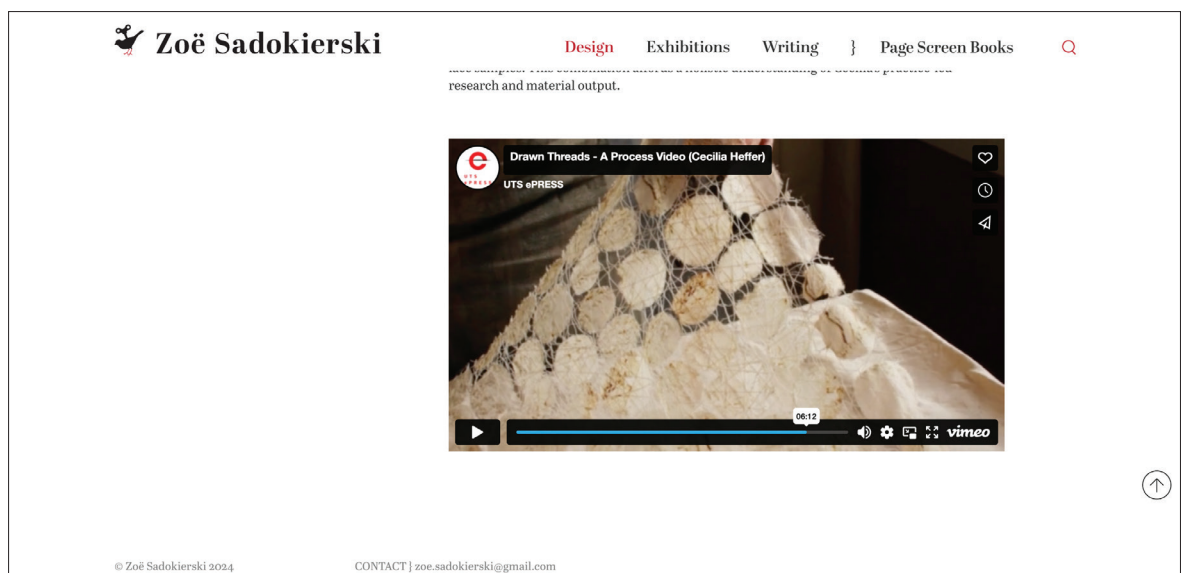
Figure 18.      Extract from the Lace Narratives monograph. Reproduced from Sadokierski and Heffer (2023b). Reproduced with permission from Zoe Sadokierski.

Figure 19.      Web page showing artistic profile, including video of creative reflective practice. Reproduced from Sadokierski, Z. (2023c). Reproduced with permission from Zoe Sadokierski.

of Grocott's (2010) use of various formats.

These multi modalities include, cream backgrounds with blue italic text (Figure 11), colour photography documenting collaboration (Figure 12), hand-drawn line drawings with text (Figure 13), and a full-page colour infographic (Figure 14). These design choices align with Schön's (1983, 1975) reflection-in-action, enhancing communication and supporting reflective practices throughout the thesis. Similarly, Sousanis' (2015) unique graphic novel, as a thesis, illustrates the potential of visual thinking and transmediation in academic work. The combination of visual and textual elements (Figures 15-17) demonstrate how non-traditional formats foster deeper reflection. Sousanis' (2015) creative and reflective practice techniques also explored in Sadokierski and Heffer's (2023a) multimodal monograph, Lace Narratives, which integrates digital processes, moving-image, text, and material elements to capture the complexities of researching and lace-making (Figures 18-19).

Collectively, these examples by Sadokierski and Heffer (2023b) highlight how combining different media enriches reflective practice, illustrating Schön's (1975, 1983, 1987) reflection-in-on-and-for-action, akin to Smith's 92022) practice discussed earlier within visual-textual modalities. The success of these multimodal approaches underscores the need for further research into how different reflective modes can be integrated to meet the needs of A&D academics and students. By adopting such an approach, A&D education can better equip students to navigate the complexities of creative practice in a rapidly evolving world (Design Council, 2018).

In conclusion, this section emphasises the value of multimodal reflective practices in A&D, showcasing the potential for richer insights through the integration of various formats. The following section will explore the theoretical underpinnings supporting these practices, providing a foundation for understanding reflective practice in design education.

## 3.2     Theoretical Frameworks in Relevant Empirical Literature

Building on the theoretical frameworks discussed in Chapter 2, this section examines key theories in empirical research within design education. Reflective practice integrates core design pedagogies, such as reflective thinking, tacit knowledge, skill development, digital tools, interdisciplinary collaboration, and professional growth (Orr and Shreeve, 2019). It synthesises these aspects, addressing challenges and insights to improve reflective practice in design education.
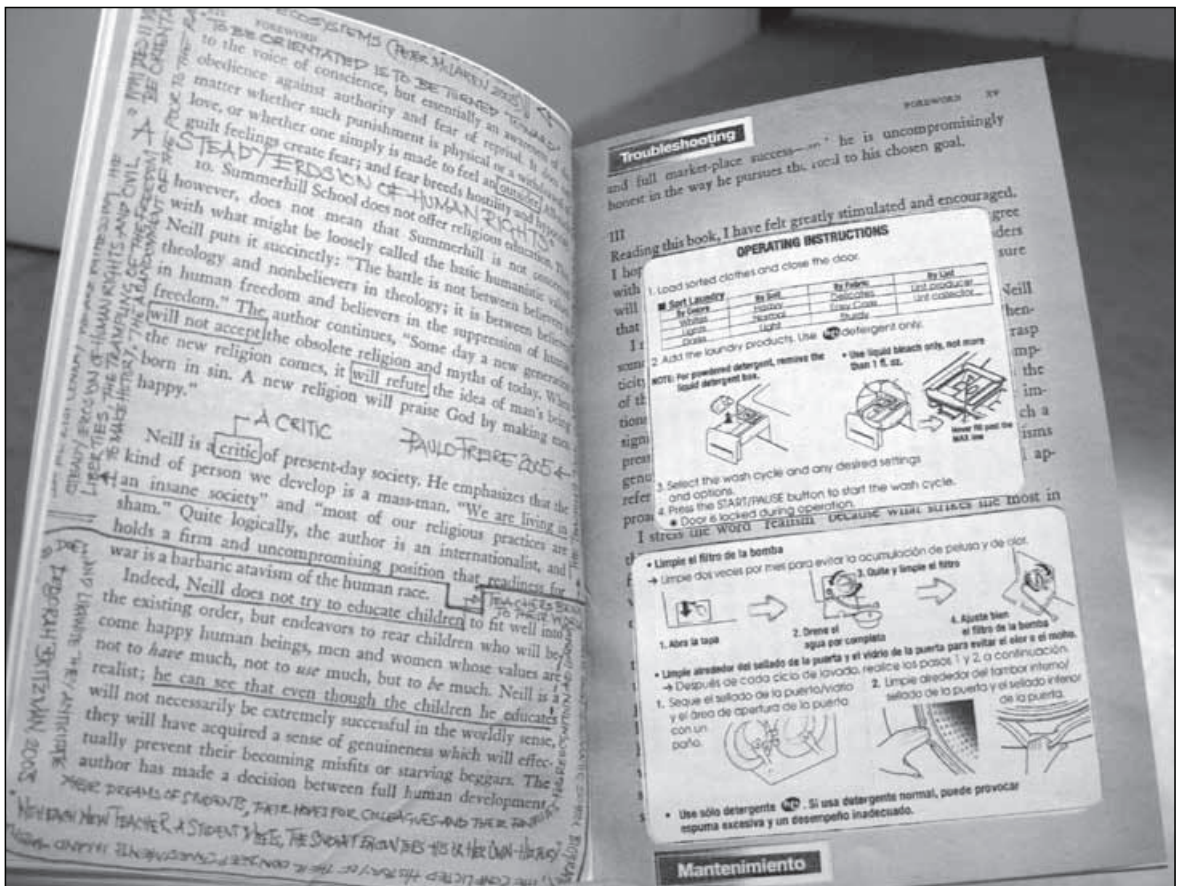
Figure 20.    Examples of a/r/tography. Reproduced from Irwin, R. L. (2013, pp.204–205). Photo credit: Heidi May. Text and images reproduced with permission from the National Art Education Association.

Figure 21.

Examples of a/r/tography (02). Reproduced from Irwin, R. L. (2013, pp.204–205). Photo credit: Heidi May. Text and images reproduced with permission from the National Art Education Association.
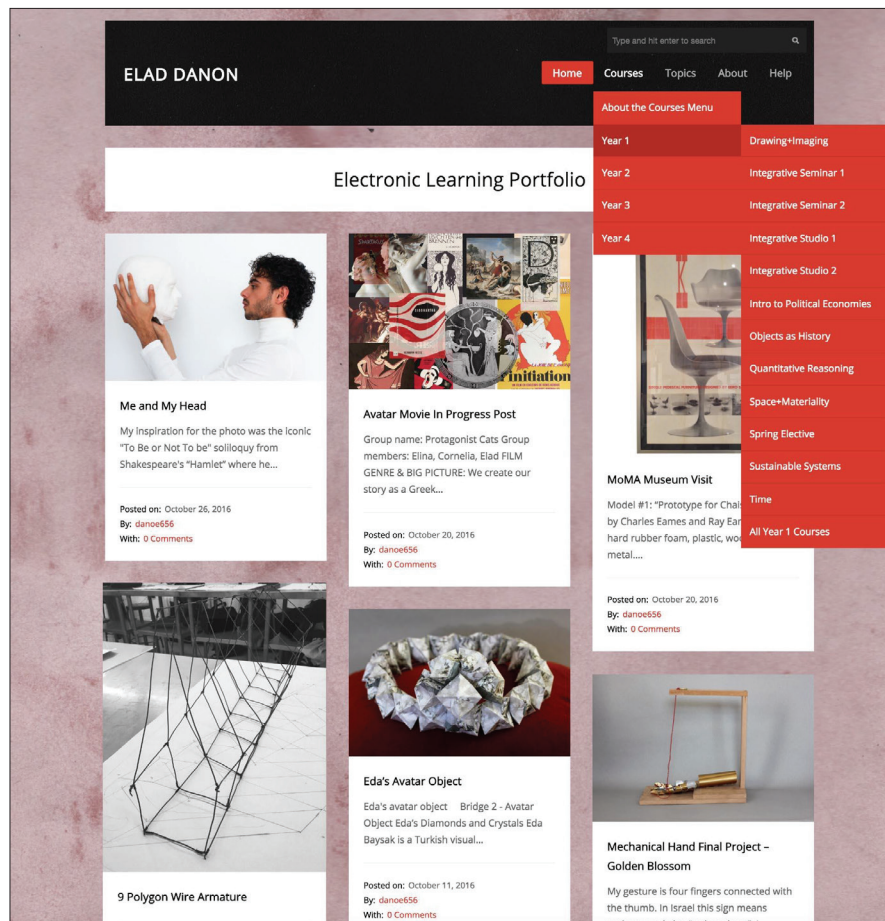
Figure 22.      Student Learning Portfolio front page. Reproduced from Doren, M. and
                Millington, B. (2019, p.76). Reproduced with permission from Mariah Doren.

Figure 23.      Student comic 1: The importance of friendship. Reproduced from original Figure
                1 in McGarr et al. (2020, p.6). Reproduced with permission from the authors.

Reflective practice in design education draws heavily on Schön's (1983, 1987) concepts of reflection-in-and-on-action(Ali, 2020; Bruno and Dell'Aversana, 2018; James, 2007; Kurt and Kurt, 2017), promoting iterative learning through studio critique (Webster, 2008). Dewey's (1933) experiential learning principles and Kolb's (1984) Experiential Learning Cycle complement this by fostering structured reflection, allowing students to critically evaluate and adapt their design processes.

Theories of tacit knowledge, such as Polanyi's (1966), are crucial in recognising non-verbal aspects of creative learning. Schön (1983) emphasises making implicit knowledge explicit through tutor-student interaction. Boud's (1985) Three-Circle Model helps navigate these complexities, though integrating these models into curricula presents challenges. Other theories, like Latour's (2005) Actor-Network Theory (ANT), offer insights into knowledge construction but may complicate reflective practice with their complexity (Matthews, 2019).

## 3.2.1 Enhancing Learning and Teaching Through Reflective Practice

Reflective practice is critical for effective learning and teaching (L&T) in design education. Dewey (1933) and Mezirow (1991) advocate for critical and transformative learning, while Schön's (1983) real-time reflection is essential for immediate adjustments in studio work. Irwin's (2013) a/r/tography merges teaching, artistry, and research into a cohesive reflective approach through sketchbooking, focusing on the ongoing process of becoming (Figure 20-21). Likewise, Doren and Millington (2019, p.76) also explore this through e-portfolios, where visual documentation supports reflective practice (Figure 22).

Digital tools further expand reflective practice. Bell et al. 's (2010) technical-practical-critical reflection model structures progression from technical skills to critical thinking, supported by multimedia tools. Kress and Van Leeuwen's (2020) multimodal literacy theory enhances reflection by incorporating text, images, and video. Birello and Pujolà Font(2016) highlight how visuals inform reflective writing, while McGarr et al. (2021), working in childhood development, propose using comics for engagement in reflective practice, which was useful for articulating emotions (Figure 23). These feelings may be hard to articulate or tacitly embedded, while drawing facilitated them to be explicated. However, despite this benefit, Rainford (2021) cautions that creative approaches can induce anxiety, requiring a balanced approach to maintain engagement while ensuring reflective effectiveness.

Collectively this suggests that although there are advantages in creative reflective practice methods which promote deep reflection, it remains challenging, especially when traditional assessments focus more on final outcomes than reflective processes (Black and Williams, 1998; Orr, 2005). Educators must balance these complexities to ensure reflective practice enhances learning without becoming a rigid requirement.

## 3.2.2 Addressing Tacit Knowledge and Professional Development

Building on the theoretical discussion in Chapter 2, this section further examines tacit knowledge in the context of learning enhancement. Tacit knowledge, a core element of Schön's reflective practice (Kinsella, 2009), is often challenging to articulate (Polanyi, 1966; Sims and Shreeve, 2012). Models such as Argyris' (1974) double-loop learning and Wood et al.'s (2009) methods provide outlets for this expression. Double-loop learning involves a repeated and deeper level of reflection where individuals evaluate their actions and challenge underlying assumptions, thus fostering a more profound understanding of tacit knowledge (Argris, 1978). Wood et al.'s (2009) methods focus on interactive and multimedia-rich approaches to facilitate the transmission of tacit knowledge in craft production. By incorporating observation, collaboration, iterative learning materials, and digital platforms, these processes aim to make the inarticulable aspects of practice more accessible to a broader audience. This approach, combined with Schön's (1983, 1987) emphasis on the dynamic interactions between tutor and student, demonstrates that successfully conveying tacit knowledge relies on both parties' engagement and willingness to actively question underlying practices. Hence, reflective practice is integral to professional development, promoting learning from experience. Schön's (1983, 1987) ideas of reflection-in-and-on-action, along with Kelchtermans' (2009) focus on teacher identity formation, highlight the need for reflection on self-perception and motivation. For design educators, incorporating these practices is essential for meaningful professional growth. However, constraints such as limited time, neoliberal meritocratic and performative pressures in HE (Whitchurch and Gordon, 2010), and divided loyalties between tutor and practitioner statuses (Shreeve, 2009, 2011) pose challenges to effective reflective practice for academics. Additionally, Shreeve does not differentiate between different A&D disciplines, instead focusing on 'part-time A&D tutors (2009) and 'creative arts' (2011), despite consideration that these fields have different signature pedagogies.

Addressing these issues, of limited time, neoliberal meritocratic pressures, performative expectations in HE, and the divided loyalties between tutor and practitioner statuses, as well as the lack of differentiation between A&D disciplines,

within professional development strategies is necessary to facilitate the articulation of tacit knowledge, enriching both teaching and professional practices in design education. By doing so, tacit knowledge becomes a more tangible asset within the reflective process, enhancing its overall value. This section on professional development provides an appropriate end to this discussion and a synopsis of this section is next provided.

### 3.2.3 Summary of Theoretical Frameworks in Relevant Empirical Literature

This summary highlights key theoretical frameworks in reflective practice within design education. Central to this is Schön's (1983, 1987) concepts of reflection-in-and-on-action, valued for fostering iterative learning and critical thinking. Complementary models like Dewey's (1933) experiential learning and Kolb's (1984) cycle further structure the reflection process. Digital tools, informed by Kress and Van Leeuwen's (2020) multimodal literacy, expand reflective practices by integrating text, visuals, and interactivity. The role of tacit knowledge, as described by Polanyi (1966) and operationalised through Argyris' (1974) double-loop learning and Wood et al.'s (2009) multimedia methods, highlights the challenge of capturing non-verbal aspects of creative practice. While these frameworks enrich design education, their complexity and overlap present implementation challenges. Balancing structured models with flexible, adaptive approaches is crucial to support learning and professional growth in design education. Having reviewed key themes and trends, and theoretical frameworks, the next section addresses relevant literature relating to reflective practice in more depth.

## 3.3 A Critical Review of the Literature

The literature chosen to review spans nearly a century, from Dewey (1933) to Smith (2022), which employs qualitative and mixed-methods approaches. It explores themes like the distinctions between design and art education, and further considers digital tools in reflective practice, and the challenges of teaching tacit knowledge.

This section critically evaluates research on reflective practice within design education, emphasising its distinctive characteristics compared to art's disciplinary perspectives. By cross-referencing key theoretical frameworks, such as Schön's (1983, 1987) concepts of reflection-in-and-on-action, Dewey's (1933) experiential learning, and Kolb's (1984) Experiential Learning Cycle, this analysis offers a nuanced understanding of how reflective practice is specifically applied and

understood in design. Schön's theories are particularly relevant in supporting real-time reflection during the design process, a critical aspect of its iterative and creative nature (Hong and Choi, 2011). Dewey's (1933, 1938) model complements this by emphasising learning through doing, central to the studio-based environment (Blaswick et al., 2022), and Kolb's (1984) Experiential Learning Cycle frames reflective practice as a continuous learning process through experience, adjustment, and application of new insights. This section further evaluates the benefits and challenges of selected theoretical models, identifying frequently used frameworks and outliers to offer a comprehensive view of reflective practice in design education.

Insights from a wide range of literature, including HE teaching and teacher training, effectively apply these three theoretical frameworks. This diversity is crucial in design education, where tutors often see themselves more as creative practitioners than traditional educators (Shreeve, 2011; van Lankveld et al., 2017). This perception can affect how reflective practice is implemented, revealing a gap between theory and practice. For instance, Dumitru's (2019) exploration of critical thinking in Arts, Humanities, and Cultural Studies, shows that reflective practices in design education are shaped by educators' self-perception as artists, designers, or educators. This variation highlights the importance of understanding identity-driven differences, as those who view themselves as creative practitioners may integrate reflective practice into teaching through iterative, exploratory methods (Hong and Choi, 2011), while those who see themselves more as formal educators might favour more structured reflective approaches through endpoint assessments (Biggs et al., 2022; Forsyth et al., 2015).

These examples offer a broader context for understanding reflective practice in design education. The analysis is organised around key themes, synthesising various studies, critiquing methodological approaches, and identifying limitations and implications for future research.

## 3.3.1    Focus and Scope of the Literature

Reflective practice in design differs from its application in art due to subtle ontological and epistemological differences, such as design's emphasis on problem-solving versus art's focus on self-expression (Jin, 2014). Argyris and Schön's (1974) concepts of 'theories-in-use' and 'espoused theories' explain the gap between what people do in practice and the beliefs or thought processes they claim to follow, which is crucial for understanding reflective practice across both A&D. Such distinctions often go unnoticed by those outside creative education, particularly as these disciplines are frequently grouped together in HE (Nottingham Trent

University, 2024; University of Salford, 2024). This conjoining, as initially presented in the thesis title, is subsequently differentiated to clarify the distinction. While this differentiation may seem complex, it is appropriate to focus the investigation on reflective practice in design, given the distinct nuances of the field

The literature reviewed spans local and global contexts, focusing primarily on research within HE institutions (HEIs). It employs a range of methodological approaches, from qualitative case studies like Ochsner's (2000) exploration of psychological dynamics in the design studio, to mixed-methods research such as Mewburn's (2008) study, which combines qualitative insights from interviews with quantitative analysis of student performance to examine the impact of Schön's theories in architectural education. This breadth reflects the expansive nature of reflective practice in design education. The perspectives of educators in the context of learning and teaching (L&T) and professional development are particularly relevant, especially in relation to distributed academic leadership (Smith, 2022). This work examines how curatorial practices, specifically the curation of teaching exhibitions, serve as a form of distributed leadership in arts institutions. The use of arts-based approaches, such as visual modalities, to foster academic micro-cultures aligns with the idea of reflective practice as a collective and dynamic process in educational development. This reinforces the need to consider reflective practice not only as an individual activity but as one that can be integrated into leadership and institutional development in design education.

As professional roles and responsibilities extend across all dimensions of the academic workforce (Saroinsong et al., 2023), it is increasingly essential for academics to engage in reflective practice that is responsive to these demands and grounded in established theoretical frameworks. Dumitru (2019) reinforces the importance of including Arts, Humanities, and Cultural Studies in HE curricula, arguing that these fields foster critical thinking, which is closely tied to reflective practice (Moon, 2013). Thus, reflective practice in design education must extend beyond technical aspects of design production, involving critical engagement with broader cultural and theoretical contexts. This integration is crucial for developing critical thinking skills needed for staff and students to navigate complex design problems effectively.

## 3.3.2   Methodological Approaches: Critique of Effectiveness

The selected literature on reflective practice in design education employs a range of methodological approaches, demonstrating the complexity of the field. Qualitative methods dominate, with case studies as the most common approach (Ali, 2020; Blair, 2008; Doloughan, 2002), along with more characteristic methods like

reflective journaling (Chaffey et al., 2012; Kurt and Kurt, 2017). These qualitative methods are well-suited to exploring reflective practice in depth, particularly in a process-oriented and experiential learning environment like design (Orr and Shreeve, 2019)..

However, reliance on qualitative methods introduces certain limitations. As Robson (2002) cautions, qualitative analysis is subjective, for example when exploring emotional and psychological aspects of design studio practice, as detailed by Schön (Webster 2008). James' (2007) study provides valuable insights into teaching critical reflection in fashion education. Using a mixed-methods approach, James integrated semi-structured interviews, visualisation tasks, and questionnaires to gather data from both academics and students. Although comprehensive, this study lacked external validity due to a lack of clear decision trails and omission of key data, such as the participants drawings, that were not included in the analysis. Despite these challenges, the study underscores the need for more robust research that examines both academic and student perspectives in depth, particularly within creative disciplines like fashion.

Chen and Chen (2022) provide a model for future research by combining questionnaires, in-depth interviews, and Structural Equation Modelling (SEM) to triangulate data, offering a more comprehensive understanding of reflective practice in HE. While mixed-methods studies are less common in design education, they offer valuable insights by integrating diverse data sources. Other studies, like those by Guy et al. (2020) and Rueeb et al. (2024, p.63), also use mixed-methods approaches, incorporating online surveys, focus groups, and techniques such as 'cinemeducation' (the use of film in education) along with interviews and quantitative content analysis in occupational therapy (OT) and medical settings. Although these fields differ from design, the underlying principles of reflective practice remain relevant.

Following Chen and Chen's (2022) example, Dwivedi et al. (2024) emphasise bridging academic research with HE practice-based work (Brosens et al., 2020). In design education, this highlights the need for research that captures both theoretical and practical aspects of reflective practice in studio settings. The 4D model—Design, Deliver, Disseminate, Demonstrate—offers a structured framework that could be adapted to design research, aligning with the Design Council's (2024) model of design-discover-deliver. Following these multiple and varied methods examples, which offer good practice in triangulating data (Robson, 2002) and provide a comprehensive understanding of reflective practice in HE, Dwivedi et al. (2024) stress the importance of bridging academic research with practical applications, especially in design education where reflective practice is essential. They reference the Design Council's 4D mode: Design, Discover, Develop, Deliver, as

a framework that could also support the integration of reflective practice into studio settings. In parallel, Brosens et al. (2020) call for addressing curriculum gaps in design education to align L&T activities with industry needs, further emphasising the importance of reflective practice in preparing students for the future.

Another valuable methodological approach is integrating digital and multimedia tools into reflective practice, as explored by Mair (2012). Digital tools facilitated documentation, storage, and retrieval of reflections, offering a nuanced understanding of how students engage with reflection. However, challenges arise in interpreting visual data (Wall et al, 2023). For example: diagrams can be overly complex, making them hard to understand; the approach may overlook participant insights, limiting authenticity, to a need to balance depth and scale; visual data can be revisited for deeper insights but managing large amounts is challenging. Additionally, a lack of standardised methods for analysing such data raises concerns about the replicability of findings. Similarly, creative methods like haikus (Harvey and Oliver, 2023) and comics (McGarr et al., 2021) show potential in fostering reflection across diverse educational contexts, although their effectiveness can vary depending on the audience and context (Rainford, 2021).

### 3.3.3    Limitations of the Studies Reviewed

Several limitations are evident across the reviewed studies, particularly regarding the scope, methodology, and applicability to design education. One major limitation is the conflation of design and art education, despite their distinct philosophical and pedagogical differences. This can result in generalised findings that fail to address the specific needs of design education, particularly in areas such as critical reflection and tacit knowledge. For example, James' (2007) study in fashion education may not fully translate to other design disciplines, highlighting the need for more design-specific research. Another limitation is the narrow focus of many studies, which limits their broader applicability. Bruno and Dell'Aversana (2019), for instance, focus on reflective journaling in master's-level graphic design, but these findings appear context-specific and may not extend to other areas of design education. Similarly, Schön's (1983) foundational work in reflective practice, while valuable, is rooted in architectural education and is based on a single observation of studio crit (Webster, 2008), which may not fully address the nuances of reflective practice in other design disciplines.

While qualitative research methods provide depth, they can introduce biases

and limit generalisability (Punch, 2014). However, Braun and Clarke (2022) argued that well-designed thematic analysis, with adequate sample sizes, can produce generalisable results. For example, James (2007) demonstrates that qualitative analysis can provide insights into emotional and psychological aspects of the design studio, but challenges in ensuring validity and reliability persist due to potential biases and unclear decision trails.

### 3.3.4   Implications for Design Education Research

The selected literature reveals key implications for future research. First, more discipline-specific studies are needed to differentiate between design and art education, recognising their distinct and specific educational outcomes. This distinction is essential for developing reflective practices tailored to design, where user-centred approaches are emphasised, as distinct from the more exploratory and expressive focus of art education. By acknowledging these differences, reflective practices can be better aligned with the practical needs and processes specific to each field.

Second, the integration of tacit knowledge into reflective practice remains under-explored. Budge's (2016a) research highlights the importance of corporeal and embodied practice in developing and communicating tacit knowledge, but more research is needed to explore how tacit knowledge can be effectively integrated into design education.

Third, the reviewed studies suggest a need for more innovative and multimodal research methods. Visual, verbal, and digital methods offer promising avenues for capturing the complexity of reflective practice, but they must be refined to ensure rigour and replicability. Mixed-methods approaches, combining qualitative depth with quantitative breadth, could further enhance the understanding of reflective practice in design.

Finally, the evolving roles of design educators, as noted by Smith (2022), indicate that reflective practice must adapt to professional development as well. Reflective practice should support educators navigating distributed leadership roles and the integration of professional and academic responsibilities.

## 3.4     Gaps and Future Directions

This critical analysis highlights several gaps in the literature on reflective practice in design education. A major gap is the conflation of A&D education, which can

obscure specific challenges of design education. More research is needed to develop strategies for making tacit knowledge explicit and communicable, as current literature lacks practical guidance. Longitudinal studies are also needed to track the development of reflective practice over time and assess its long-term impact on both students and educators. Furthermore, there is a lack of quantitative data in the literature, suggesting the need for mixed-methods approaches to improve generalisability. Finally, more research should explore the effectiveness of digital and multimodal tools in enhancing reflective practice in design education.

## 3.4.1    Opportunities for Further Research

Future research should focus on discipline-specific studies that distinguish between the different fields of A&D education and address the distinctive demands of design. Strategies for integrating tacit knowledge into reflective practice should be developed, and longitudinal studies tracking the evolution of reflective practice would provide valuable insights. Mixed-methods approaches could be further explored, and digital tools should be evaluated for their effectiveness in reflective practice. Additionally, reflective practice must be integrated into the professional development of design educators, supporting them in balancing roles and fostering continuous learning.

## 3.4.2    Justification for the Thesis Study

The justification for this research is grounded in the identified gaps, complexities, and opportunities for innovation within the literature on reflective practice in design education. The review reveals that while reflective practice is widely recognised as essential for professional growth and pedagogical development (Schön, 1983; Boud, 1985; Dewey, 1933), there is a significant need for discipline-specific research that addresses the distinct ontological and epistemological differences between art and design education (Jin, 2014; Orr and Shreeve, 2019; Shreeve, 2011). Many existing studies conflate these two disciplines, resulting in generalised findings that do not adequately address the novel characteristics of design education, such as its problem-solving focus and user-centred approaches (Jin, 2014; Shreeve, 2011). This research seeks to fill this gap by focusing solely on reflective practice within design education, offering a more targeted and relevant exploration that aligns with the specific needs and outcomes of the discipline (Orr and Shreeve, 2019; Dumitru, 2019).

Moreover, the literature emphasises the importance of integrating tacit knowledge into reflective practice, particularly in design where much of the learning process

is intuitive and difficult to articulate (Polanyi, 1966; Schön, 1983; Sims and Shreeve, 2012). However, current research on tacit knowledge remains limited, with few practical strategies for making this implicit knowledge explicit in both academic and professional contexts (Budge, 2016a; Rogers, 2008). This research aims to address this gap by exploring methods for effectively incorporating tacit knowledge into reflective practices, thereby contributing to a deeper understanding of how design students and educators can better engage with the often-unspoken aspects of their learning and creative processes (Barrett, 2007; Budge, 2016b).

Another key justification for this research is the need for innovative methodologies that reflect the multimodal nature of design practice. The literature highlights the value of visual, verbal, and digital methods in capturing the complexity of reflective practice (James, 2007; Rogers, 2008), but also underscores the challenges of effectively integrating these approaches into the curriculum (Ali, 2020; Orr and Shreeve, 2019). Existing studies tend to prioritise textual reflection, which may not fully capture the nuances of design thinking (Doloughan, 2002; Sims and Shreeve, 2012). This research will explore the potential of multimodal reflective practices, combining visual, verbal, and digital tools to create a more holistic and flexible approach to reflection that is better suited to the iterative and creative nature of design education (Kress and Van Leeuwen, 2020; Gelmez and Tüfek, 2022).

The role of digital tools in reflective practice also warrants further investigation. While some studies have begun to explore the use of digital platforms for reflection (Mair, 2012), the literature lacks comprehensive evaluations of their effectiveness in enhancing reflective practices in design education (Doreen and Millindon, 2019). Given the increasing role of technology in both education and professional practice, this research will examine how digital tools can be leveraged to support deeper engagement with reflective practice, particularly in studio-based learning environments (Harvey and Oliver, 2023).

Finally, the evolving role of design educators, as noted by Smith (2022), highlights the importance of reflective practice not only for student learning but also for the professional development of educators. This research will investigate how reflective practices can support educators in balancing their academic and professional responsibilities, particularly in the context of distributed leadership and the growing demands of HE (Whitchurch and Gordon, 2010; Shreeve, 2011). By addressing these gaps, this research aims to contribute to a more nuanced and comprehensive understanding of reflective practice in design education, ultimately leading to more effective teaching, learning, and professional development strategies within the field.

## 3.5    Summary of the Literature Review: Reflective Practice

The literature review critically examines existing research on reflective practice within design education, structured into four key sections. First, *Key Themes and Trends in A&D* explores the role of the design studio environment, critical discourse, experiential learning, and tacit knowledge in shaping reflective practice. This section underscores how these elements contribute to the development of reflective practitioners in A&D education, highlighting the physical, cognitive, and psychological dimensions of the design process.

Second, *Theoretical Frameworks in Relevant Empirical Literature* extends discussions from the previous chapter, focusing on theories by Schön (1983, 1987), Dewey (1933), and Kolb (1984). These models are key to understanding reflective practice in design education, emphasising real-time reflection, experiential learning, and iterative design processes. Additionally, the section highlights the importance of tacit knowledge and the challenges of capturing this often-unspoken expertise.

Third, *A Critical Review of Literature* provides an in-depth analysis of empirical studies, identifying the benefits and limitations of reflective practice research in A&D. It critiques the tendency to conflate design with art education, which can obscure discipline-specific needs, and highlights the gap in research addressing the specific demands of design education. The section also addresses the methodological challenges of integrating digital, verbal, and visual approaches into reflective practice.

Finally, *Gaps and Future Directions* identifies limitations in existing research, particularly the need for discipline-specific studies and innovative methodologies that better capture the complexity of reflective practice in design. It calls for more research on tacit knowledge, multimodal reflective practices, and the role of digital tools, as well as the integration of reflective practice into the professional development of design educators.

This chapter establishes the foundation for this research by critically engaging with relevant literature, identifying gaps, and setting the stage for a focused exploration of reflective practice within a design department. Prior to the discussion of the methodology for the research it is useful to revisit the research questions outlined in Chapter 1, Introduction.

### 3.5.1    Reviewing the Research Questions (2)

The literature review has identified key themes and theoretical frameworks relevant to reflective practice in design education, such as its differences from art education, the role of tacit knowledge, and the potential for multimodal approaches. These

findings shape the study's research questions, which aim to explore how design academics understand reflective practice. The need for discipline-specific research, highlighted in the literature, aligns with the study in several ways:

**Research Question 1:** The literature stresses the ontological and epistemological distinctions of A&D education, reinforcing the need for discipline-specific reflective practice. This aligns with the first research question, which examines how HE A&D academics understand and conceptualise reflective practice in a design context (Jin, 2014; Schön, 1983).

**Research Question 2:** Existing studies highlight confusion around reflective practice's purpose, particularly regarding tacit knowledge in design (Polanyi, 1966; Budge, 2016a, 2016b). This informs the second question, which explores the perceived purposes of reflective practice and how it serves both academic and professional development goals.

**Research Question 3:** The challenges of integrating reflective practice into the design curriculum, especially using multimodal methods (Kress and van Leeuwen, 2020; Orr and Shreeve, 2019), guide the third question, which examines how staff perceive reflective practice is taught, using both traditional and innovative methods.

**Research Question 4:** The evolving role of educators and the distribution of responsibility for teaching reflective practice (Smith, 2022) inform the fourth question, which addresses staff perceptions of responsibility for teaching and assessing reflective practice, particularly in relation to the transition from shared responsibility models (Boud et al., 2013) to a more embedded, fluid approach within distributed leadership frameworks (Smith, 2022). This perspective highlights that responsibility is not merely divided among designated roles but is instead diffused across formal and informal leadership structures, aiming to generate a culture of reflection beyond traditional assessment frameworks.

These research questions are grounded in identified gaps from the literature and provide a structured inquiry into reflective practice in design education, leading to the methodology discussed in the next chapter.

# Chapter 4.
# Methodology

This chapter outlines the methodological framework used in the thesis, focusing on the approach, design, rationale, and methods for data gathering and analysis (Punch, 2014). The study is primarily situated within a multi-theoretical framework that includes reflective practice as the central focus, complemented by phenomenology, alongside acknowledging Bourdieu's (1991) theory of social structures, and Foucault's (1977) analysis of power dynamics (Murphy, 2022). These frameworks are crucial for understanding the complex nature of reflective practice within the context of higher education (HE) design, and in relation to the research questions that were reviewed following considerations of the theoretical foundations and empirical literature. The chapter begins by detailing the research paradigm, including the ontological and epistemological stances that shape the philosophical and theoretical foundations of the research. Next, the research design and methods are discussed, including the rationale for the chosen approaches and the strategies used for data collection and analysis. Ethical considerations and the rationale for validity, reliability, and generalisability in the study are also addressed, ensuring a rigorous methodological approach.

## 4.1 Philosophical Frameworks in the Study

To define the philosophical framework it is necessary to acknowledge the conceptual and theoretical frameworks. This study centres around reflective practice as the independent conceptual variable and the core theoretical framework, essential for understanding the experiences of design educators. Reflective practice fosters critical thinking, self-awareness, and continuous development (Brookfield, 1995; Kolb, 1984; Schön, 1983) but is under-emphasised as a signature pedagogy in art and design (A&D), where tacit and experiential learning dominate (Sims and Shreeve, 2012). Given the complexity of reflective practice and its diverse epistemological perspectives (van Manen, 1996; Kinsella, 2009), this study draws on additional theoretical frameworks to provide a more comprehensive understanding. In particular, Husserl's phenomenology (1931) addresses the roles of intention and consciousness, Bourdieu's theory of social structures (1984, 1990) explores the influence of institutional and cultural contexts, and Foucault's analysis of power dynamics (1986) highlights how power relations shape pedagogical practices. These complementary frameworks allow a nuanced examination of how reflective practice is understood, taught, and assessed within the Design Department, addressing the multifaceted research questions posed by this study.

### 4.1.1 Phenomenology as an Analytical Lens

Phenomenology is utilised as a key analytical lens to explore the lived experiences

of design educators engaging in reflective practice. Rooted in the works of Husserl (1931) and Merleau-Ponty (1962), phenomenology emphasises the subjective, embodied, and often tacit dimensions of professional practice (Kockelmans, 1993). This approach is particularly relevant in design education, where the nuanced, often unspoken aspects of reflective practice play a central role in developing professional competencies (Polanyi, 1967). Additionally, Schön's (1983) epistemology of technical rationality resonates with Husserl's ideas about rationality in several ways. Schön's concept of technical rationality involves the application of theoretical knowledge to practical problems, which aligns with Husserl's notion of rationality as a structured, intentional engagement with the world (Wiltsche, 2022). Schön (1983) critiques the limitations of technical rationality by emphasising the importance of reflective practice, arguing that it is essential for addressing complex, ill-structured problems in professional contexts. This complements Husserl's view that rationality is deeply rooted in subjective experience and intentionality. Schön's approach extends Husserl's ideas by integrating reflection into the process of rational decision-making, thus enriching the understanding of how rationality functions in professional practice. By employing phenomenology, the study examines educators' perceptions and rationalises reflective practices within particular disciplinary contexts (Kockelmans, 1994).

## 4.1.2    Bourdieu's Framework: Social Structures and Disciplinary Contexts

While phenomenology offers insights into individual experiences, Bourdieu's (1984, 1990) concepts of habitus, field, and capital are critical for understanding the social and cultural structures that shape these experiences (Murphy, 2022). Reflective practice is influenced by social norms, cultural values, and institutional frameworks (Kinsella, 2009), which also govern each design discipline (Orr and Shreeve, 2019). Bourdieu's notion of *habitus*, when aligned to reflective practice in HE design practice, can support explaining how it is influenced by internalised dispositions of individuals within specific fields; while the concept of *field* examines the impact of institutional contexts on the value and implementation of reflective practice across disciplines (Grenfell and James, 1998). This framework also facilitates an analysis of cultural, social, and symbolic capital, which impacts how reflective practice performs within the social fabric of design education in the selected department (Bourdieu, 1984).

## 4.1.3    Foucault's Contribution: Power, Discourse, and Institutional Dynamics

In addition to the insights from phenomenology and Bourdieu, Foucault's theories of power, discourse and governmentality are crucial for examining how reflective practice is shaped by institutional forces (Murphy, 2022). Foucault's work provides a lens to critically analyse the power relations and discourses that govern reflective practice within university settings. Foucault's concept of discourse explores how reflective practice is articulated within design education, while governmentality examines how reflective practice may be used as a tool for regulating academic behaviour, aligning it with broader institutional objectives (Ball, 2003; Murphy, 2022; Webb, 2013). These insights are particularly valuable in understanding the institutional dynamics around the responsibility held by educators for teaching and assessing reflective practice.

As a result of the relevance of these philosophical stances concerning lived experience, social and cultural capital, and power within and around the university, this study adopts a multi-theoretical approach to capture the complexity of reflective practice in design education. While reflective practice is the primary framework, phenomenology is positioned as the main analytical lens, allowing an in-depth exploration of lived experiences of reflective practice (Finlay, 2009). Bourdieu and Foucault's theories provide necessary additional context to situate these experiences within broader social and institutional structures (Murphy, 2022), given that reflective practice cannot be isolated from these stances. This integration ensures a comprehensive understanding of how reflective practice functions in design education, offering insights that are both deeply personal and broadly contextualised (Giddens, 1984; Archer, 2008), and directly addresses the research questions posed by this study.

## 4.2    The Research Paradigm

A research paradigm shapes how researchers view the world ontologically and how they understand knowledge epistemologically, including the nature of reality and the relationship between the researcher and that reality (Badenhorst, 2015; Punch, 2014). This study explores the nature of reality and knowledge. These concepts are crucial for understanding how design educators construct and interpret professional experiences through reflective practice.

### 4.2.1    The Research Ontology

Ontology refers to the researcher's assumptions about reality (Basit, 2010; Creswell, 2013), which can be understood through positivist, interpretivist, or critical approaches (Carr and Kemmis, 1995). This study adopts an interpretivist ontology,

which holds that reality is subjective and shaped by individuals' experiences, culture, and societal norms (Robson, 2002; Merriam and Tisdell, 2016). Reflective practice aligns with this perspective, as it involves the subjective development of professional and creative practices (Galdon and Hall, 2022; Marshall, 2019).

Interpretivism is associated with relativism, where reality varies across individuals and contexts (Cohen et al., 2018), a view echoed in Foucault's (1986) exploration of power dynamics and Bourdieu's (1990) concept of habitus, which relates to social structures influencing individual practices (Allen, 2015). This framework complements the investigation into how academics understand reflective practice in design education. Design, like reflective practice, is shaped by subjective experience and endorsed by Margolin (1989, p.6):

> 'Design is as much an expression of feeling as an articulation of reason; it is an art as well as a science, a process and a product, an assertion of disorder, and a display of order.'

Bredies et al. (2010) emphasise the role of constructivism in design education, suggesting that designers continuously construct and reconstruct meaning through iterative processes of making and reflection. Reflective practice is also constructivist, focusing on how individuals and social structures build understanding through cognitive processes and interactions (Creswell, 2013; Pande and Bharathi, 2000). Kinsella (2009) further connects reflection with Schön's (1983) constructivist stance, linked to Goodman's (1978) theory of worldmaking, reinforcing the relevance of a constructivist approach in this study's context of design education.

However, as a counterargument, Scotland (2012) contends that interpretivism may lead to incomplete understanding due to unexamined ideologies shaping judgments. This aligns with the research's conceptual framework, which draws on both Foucault's view that ideologies, like reflective practice, are culturally embedded and shape individual perspectives (Webb, 2013), and Bourdieu's notion of habitus, where such ideologies are reproduced through social structures (Murphy, 2022). Thus, design staff are likely to have varied socially constructed experiences shaped by their design-specific, educational, and cultural backgrounds.

Additionally, Braun and Clarke (2019) highlight that these diverse life experiences and inherent biases of researchers play a critical role in shaping qualitative research outcomes. The emphasis on reflexivity supports the thesis's aim to gain insight into varied perceptions of reflective practice. This reflexive approach acknowledges that researchers' subjectivities are integral to understanding the multiplicity of perspectives in design education. Thus, these diverse life experiences will contribute
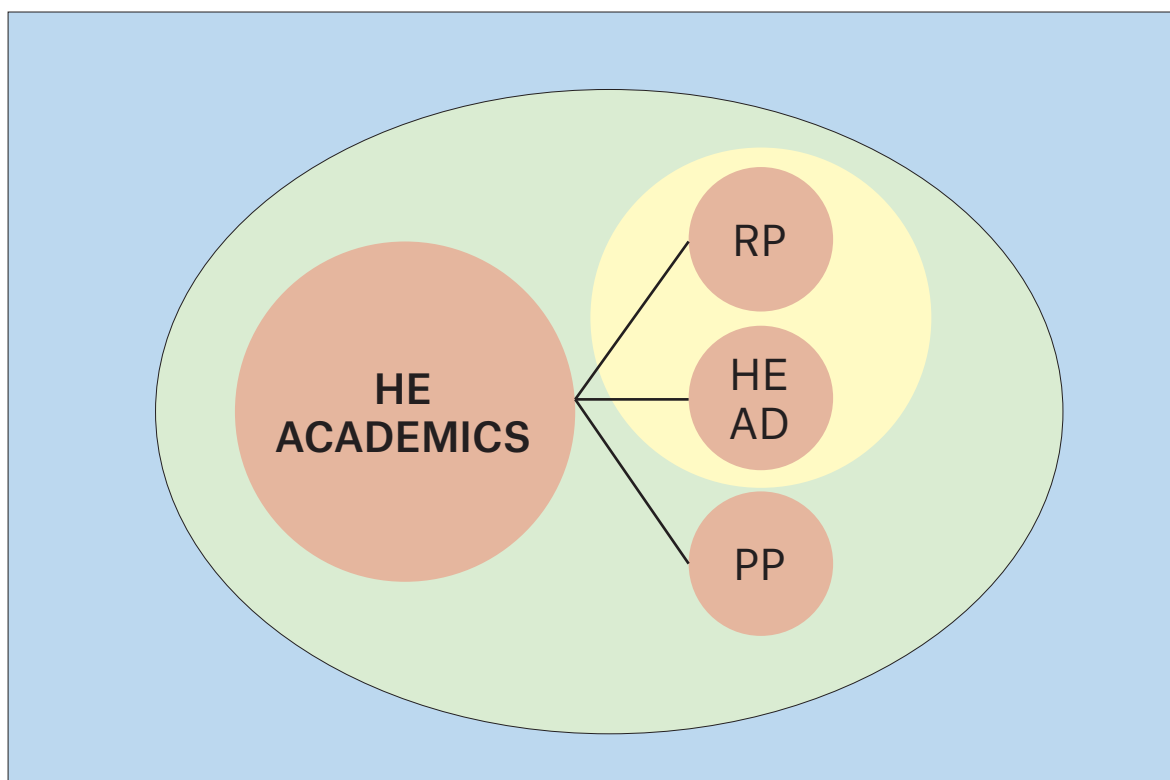
| KEY | Research approach | Research phenomena |
| --- | --- | --- |
| | **Qualitative** | |
| | **Phenomenology** | **RP — Reflective Practice** |
| | **Ethnographic** | **HE AD — HE Art & Design** |
| | **Case study** | **PP — Professional Practice** |

Figure 24.     The Research Design produced by the thesis author.

to shaping distinct understandings of reflective practice, supporting the aim to gain insight into these perceptions, particularly in relation to the research questions on understanding and teaching reflective practice (Research Questions and Objectives, Section 1.4).

Thus, this multi-lens approach, considering Foucault and Bourdieu, supports capturing the multiplicity of perspectives that exist within HE design reflective practices, acknowledging the roles of power, discourse, and social structures in shaping these perspectives (Murphy, 2022; Webb, 2013). While Foucault and Bourdieu's stances suggest a critical theory ontology (Merriam and Tisdell, 2009), supportive of transformation, evident in educational frameworks such as Freire's Pedagogy of the Oppressed (1970-2018), the interpretivist and constructivist ontologies aligned with the study. These ontologies support establishing insight and understanding, as the analysis of reflective practice in design may be coherent, albeit hidden within a tacit-implicit conceptualisation. Therefore, following the confirmation of this paradigm now leads into confirming the research epistemology.

## 4.2.2   The Research Epistemology

Similar to the thesis investigation's ontology, the epistemology is also interpretivist, supporting Guba and Lincoln's (1994a, 1994b) recommendation that the paradigm stances for the research should be shared. For clarification, the ontological perspective acknowledges that reflective practice is socially constructed by diverse individuals' lived experiences. Thus, an interpretivist epistemology assists the researcher in understanding that knowledge about reflective practice is constructed through interpretation and subjective experiences, while also considering these insights are influenced by institutional power dynamics. For example, the university might recommend reflective practice is integrated into the curriculum via learning outcomes (LOs) to ensure staff are mindful to teach it. However, this could be construed as being part of summative assessment, which contradicts the iterative and ongoing nature of design practice (Sims and Shreeve, 2012). Thus, this situation could lead to tensions between unit leader and design staff or support personnel, aligning with Foucault's theory regarding power and knowledge and with Bourdieu's social stances (Murphy, 2022). This comprehension is also informed by personal and cultural demographics, and academic and disciplinary practices relating to learning and teaching (L&T) and design practices that subsequently inform reflective practice, particularly within addressing how reflective practice is perceived and taught within the department. Dohn (2011, p.673), researching different understandings between thinking and doing reflective practice, reinforces this perspective:

'Reflective activities manifest epistemological presuppositions about the nature of competence, knowledge, and learning, and about the relation between thinking, communicating, and acting'.

In addition to identifying the research epistemology, it is also necessary to acknowledge the relevance of reflexivity.

## 4.2.3 Reflexivity

Reflexivity involves the researcher's self-awareness of their influence on the research, acknowledging how personal biases may shape data collection and analysis (Cousin, 2013). This concept is closely tied to epistemology, which guides how knowledge is understood and constructed within an interpretivist framework (Dean, 2017). In this study, reflexivity is crucial for critically examining power relations and cultural contexts, drawing on Foucault (1986) to understand how these factors shape reflective practice in HE design.

The reflexivity of the researcher encompasses diverse qualifications and employment experiences in textile design, fine art, community arts, and healthcare, combined with long-term teaching and scholarship in HE A&D, including a senior-level position in the selected university's Design department. Notably, these disciplines use different forms of reflective practice, from standardised to non-standardised approaches. This extensive profile spanning over twenty-years provides a rich foundation for this investigation. However, this depth of experience may also introduce potential biases, such as gullibility and dogmatism (Battaly, 2010; Cassam, 2016). These traits, while potentially contentious, can offer valuable insights into understanding diverse perspectives within reflective practice.

The researcher acknowledges that other staff members in the Design department may not possess a similarly expansive knowledge of reflective practice, particularly those whose expertise is concentrated in a single discipline, such as graphic design. This awareness of the diversity in experience and understanding among staff members underscores the importance of critically balancing subjectivity with reflexivity throughout the research process. While complete neutrality may be neither possible nor desirable within an interpretivist paradigm, conscious efforts to mitigate bias and remain transparent about the researcher's positionality (Robson, 2002) are essential to ensure a credible and trustworthy analysis. To address potential biases and ensure a balanced and thorough analysis of the data, the researcher chose to employ several strategies. These include engaging in reflective practice and maintaining detailed notes to record reflections, which were revisited during data analysis to enhance self-awareness and objectivity (Braun and Clarke,

2019). Additionally, multiple data collection methods will be employed to ensure a comprehensive understanding, such as comparing academics' views with university guidance on reflective practice, to uphold a rigorous analysis process throughout the study.

The researcher's positionality was central to this study, as their academic and professional background spanned both OT and A&D education. This interdisciplinary perspective offered a valuable lens through which reflective practice was examined, encompassing both structured and tacit approaches to reflection. As previously outlined in Section 1.3, the researcher's engagement with reflection evolved from implicit, embedded creative processes to the more formalised reflective frameworks encountered in OT. This background influences the study's design by providing insight into how reflection manifests across different disciplines and how it can be more explicitly integrated into A&D pedagogy. However, recognising this positioning required an active commitment to reflexivity to minimise bias and ensure that findings remained critically informed rather than unduly shaped by personal experience. To support this, the researcher engaged in self-reflective journaling, iterative and ongoing engagement with literature, and peer debriefings to maintain analytical rigour and self-awareness throughout the research process. Furthermore, a multi-method data collection strategy, including comparisons between institutional policies and educators' perspectives on reflective practice, strengthened the validity of the study by mitigating individual bias. The adoption of phenomenological and thematic analysis ensured that data interpretation was firmly grounded in participants' perspectives, allowing for a more nuanced and balanced exploration of reflective practice in HE A&D. By maintaining a critical and reflexive stance, this study aimed to authentically represent academic perspectives on reflective practice while contributing meaningfully to pedagogical discourse in creative education. This approach aims to counteract individual bias, which also leads into impartiality.

## 4.2.3.1    Objectivity and Subjectivity

Following on from the approach to reflexivity, which aims to counteract individual bias, is the consideration of impartiality. Levitt et al. (2022) describe objectivity as relating to systematic truths and subjectivity as personal, biased insights. While these perspectives can coexist, objectivity in this study is achieved by balancing close insights into departmental practices with the subjective experiences of staff. Harding (2009) supports the view that objective understanding is often built upon subjective perspectives, aligning with the study's interpretivist ontology and

epistemology. Similarly, Ratner (2002) argued that subjective processes, such as perception and interpretation, can enhance objective comprehension when applied thoughtfully and systematically. This perspective underlines the importance of reflexivity in qualitative research, where acknowledging the researcher's values and biases can actually support more accurate and meaningful interpretations of participants' experiences. By acknowledging the varying understandings and experiences of reflective practice, the research design is grounded in a philosophical foundation that supports the investigation of the study's research questions. By considering aspects of reflexivity and acknowledging the potential influences on the research process, the foundation for the research paradigm has been established. The next stage is to outline the research design, detailing the specific strategies employed to investigate academics' understanding of reflective practice in design education.

## 4.2.4   The Research Design

Building upon the discussion of ontological perspectives, this research employs a multi-layered phenomenological ethno-case study design to investigate academics' understanding of reflective practice in design education. This qualitative investigation prioritises a flexible and adaptive methodology to ensure the validity and rigour (Leedy and Ormrod, 2005). This comprehensive approach accommodates the conceptual framework for the research, as an interplay between reflective practice, the departmental context, within an institutional framework and the diverse roles and experiences of design staff (Figure 1 Conceptual Framework).

The primary methodological approach is phenomenological, well-suited for understanding design educators' lived experiences with reflective practice, as demonstrated by James (2007) and Ali (2020). This approach emphasises subjective interpretations and the inherent complexities of these experiences, as noted by Kinsella (2009) and Marshall (2019) (Chapter 2), making it appropriate for exploring multiple, often ambiguous interpretations (Braun and Clarke, 2022).

Research designs such as grounded theory, ethnography, and case studies are common in qualitative research (Merriam and Tisdell, 2013). While grounded theory seeks to develop new theories from empirical data (Glaser & Strauss, 1967), it is not suitable for this study, which aims to understand reflective practice through existing theoretical frameworks, such as Schön's epistemologies (Kinsella, 2009). Ethnography, rooted in the study of human behaviour (Leedy and Ormrod, 2005), provides an interpretive approach to explore cultural attitudes in specific settings (Punch, 2014). This is particularly relevant for investigating reflective practice within a HE Design department, where institutional culture, environment, and staff

diversity shape design practice (as distinct from art). The researcher's long-standing role in the department further strengthens this approach.

However, case study research, closely related to ethnography, also allows for in-depth exploration of phenomena within real-world contexts (Yin, 1993). Studies like Smith et al. (2023) on HE A&D academics and Lopez et al. (2023) on art teachers' reflective practices exemplify this approach. Thus, a case study in this research supports a focused examination of how reflective practice is implemented by staff, offering practical and deeper insights, as Robson (2002) suggests. By integrating ethnography with case study methods, this study adopts a hybrid 'ethno-case study' design (Parker-Jenkins, 2018), grounded in qualitative, phenomenological insights. Figure 24 illustrates this design and its integration of multiple approaches to provide a comprehensive understanding of reflective practice within the Design department.

Set within a qualitative framework key phenomena are scrutinised: reflective practice, HE A&D practices, and specifically design practice. The ethnographic component captures the cultural nuances and practices within the Design department, focusing on both educational and professional contexts involving the design staff. Meanwhile, the case study examines the specific lived experiences of staff across the department. This methodology explores how academics understand reflective practice, linking it to both design practice and professional practice, within and beyond the university setting. This dynamic framework is further enhanced by the inclusion of Foucault's and Bourdieu's theoretical frameworks (Murphy, 2022), which contextualise the phenomena of reflective practice within broader social and institutional structures, connecting individual experiences to larger societal contexts.

Beyond establishing the research approach, it is next necessary to identify the study's rationale, which refers to the extent to which a study investigates what it intends to. For instance, poorly designed studies can lead to invalid results (Leedy and Ormrod, 2005). By incorporating a robust and multifaceted methodology, this study aims to ensure a thorough and credible investigation into reflective practice within the Design department, contributing valuable insights to the fields of design and HE.

## 4.2.5   The Research Rationale: Validity, Reliability, and Generalisability

With the established approach to the research, it is essential to consider the underlying principles that ensure the study's findings are robust, credible, and applicable. In qualitative research, particularly within an interpretivist framework, the concepts of validity, reliability, and generalisability encounter nuanced meanings,

| Job title / Programme | Role / Level of responsibility | | | | |
|---|---|---|---|---|---|
| | Principal | Snr Lecturer | Lecturer | GTA | Study Support |
| Executive | 2 | | | | |
| Professor | 1 | | | | |
| Director of Health | 1 | | | | |
| Director of Studies | 1 | | | | |
| Research + PGR | 3 | 1 | | | |
| Fashion | | 4 | 2 | 1 | |
| Fashion Art Direction | | 2 | 2 | 1 | |
| Graphics | 1 | 7 | 3 | 1 | |
| Illustration | | 6 | 1 | 1 | |
| Interiors | | 5 | 1 | 1 | |
| Textiles | | 10 | | 1 | |
| 3D Design | | 4 | | 1 | |
| Foundation A&D | | Unknown | | | |
| Contextual Practice | | Unknown | 3+ | | |
| Study Support | | | | | 3+ |
| Sample Frame Totals | 9 | 39+ | 12+ | 7 | Unknown |
| | 70+ | | | | |

| KEY | Total numbers of staff | Executive Level | Undergraduate Level | Study Support (non-academic) Level |
|---|---|---|---|---|

Table 5.        Estimations of the department population.

| Level | Name of programme | Shared Units | | Additional Services |
|---|---|---|---|---|
| FE | Foundation Diploma in A&D (1) | | | Study Support (2f 1f)<br><br>Unit-wide courses (Valor) (1f**) |
| UG | Fashion (1f 1m) | Valor | CS*<br><br>(3f**) | |
| | Fashion Communication (1f 1m) | | | |
| | Graphic Design (1f 1m) | | | |
| | Interior Design (1f 1) | | | |
| | Illustration (1m) | | | |
| | Textiles (2f) | | | |
| | Three-dimensional Design* (2m) | | | |
| PG | Varied progs. (2f) | | | |
| TOTALS | 23 (15f + 8f) | | | |
| (n) the nunber of participants. f = female. m = male. | | | | |
| * delivery by a separate team ** multiple roles held | | | | |

Table 6.          Number of Participants, Gender Distribution, and Alignment with Study Level

reflecting the complexity and subjectivity inherent in studying phenomena (Merriam and Tisdell, 2016), like reflective practice in design education. These constructs are vital in addressing the research questions ensuring the study's conclusions are meaningful within the specific context of this investigation and have significance in broader academic-theoretical and practical discussions. Therefore, this section explores how these concepts are interpreted and applied in this study, ensuring the research is rigorous and insightful.

Internal validity in qualitative research refers to the credibility and trustworthiness of the findings within the context of the study. It encompasses characteristics such as truth, credibility, and significance, ensuring that conclusions resonate with the research aims (Pole and Morrison, 2003). Although traditionally associated with quantitative research, where validity is closely linked to measurement and testing (Wolcott, 1994), this concept is somewhat at odds with the interpretivist paradigm of this investigation, which embraces the subjective and varied nature of reflective practice. As Wolcott (1994, p.368) notes, validity can be a 'slippery old chestnut,' particularly in qualitative research where understanding is often nuanced and subject to interpretation. Despite this, ensuring rigour throughout the research process is essential for the credibility of a doctoral award. Thus, the investigation is deemed valid, in response to the recommendation to clarify reflective practice within design education (James, 2007; Ali, 2020). Establishing validity throughout the research process, rather than only at the conclusion, is also an effective method (Morse et al., 2002).

Reliability is supported through trustworthiness, which includes maintaining an audit trail and using consistent methods that allow for comparability of data (Basit, 2010; Denscombe, 2010). Triangulation, or the use of multiple methods to cross-check findings, further enhances reliability (Cohen et al., 2018). However, Ritchie and Lewis (2003) caution against over-reliance on triangulation, particularly in qualitative research, where the notion of a single reality is contested. In the thesis, triangulation aids in expanding the understanding of reflective practice within the specific context of a design department, although the applicability of findings to other contexts may be limited due to the specific composition of different design subject disciplines in other design departments.

External validity, as the extent to which findings can be applied beyond the immediate study context, poses inherent challenges in qualitative research, especially with small sample sizes where participants' responses can vary widely (Pole and Morrison, 2003). This investigation is 'situated' (Guba and Lincoln, 1994b, p.114), meaning it is potentially generalisable only to the specific participants and setting studied. While thick description and detailed transparency are necessary for

potential replication (Lincoln and Guba, 1985), the applicability of the findings to broader contexts remains uncertain. This raises important considerations about the scope and impact of the research, aligning with discussions about generalisability and the extent to which findings may resonate beyond the immediate study context, and links to further debate about other moral concerns.

## 4.3    Ethical Considerations

Ethics in research pertains to the principles, codes, and standards of practice that regulate actions and behaviours (Punch, 2014). In the context of this study, ethical governance is guided by institutions such as UK Research and Innovation (UKRI, 2021) and the Education and Social Research Council (ESRC, 2021), which provide crucial guidelines for HE researchers (Brooks, 2023). Ethical considerations in research involve both deontological obligations, as duties that must be undertaken, and consequentialist concerns, focusing on the outcomes of the research (Cohen et al., 2018). These considerations include obtaining informed consent from participants and managing power dynamics throughout the research process., mindful of Bourdieu and Foucaults 's lenses (Murphy, 2022) ethics are particularly relevant to the study of reflective practice and design practice.

Reflective practice is widely regarded as a positive tool for professional development (Bolton and Delderfield, 2014; Mastenbroek, et al., 2024; Moon, 2013; Schön, 1983). However, it is important to acknowledge the potential for negative reactions, as reflection might provoke adverse thoughts or lead participants to withhold information (Hobbs, 2007; Hamblin and Crisp, 2022). Participants may be reluctant to disclose personal experiences due to the intimate nature of reflective practice (Verplanken et al., 2007). To mitigate these risks, the study presupposes that participants, supported by HE's focus on mental health and well-being (Universities UK, 2023), are capable of engaging in and negotiating discussions on reflective practice.

In addition to reflective practice, ethical considerations are central to design education, a complementary focus of the thesis and a control variable within the conceptual framework (Introduction: 1.7). Design practice inherently involves creativity and innovation, with designers often praised for their ability to think laterally and manage ambiguity (de Bono, 2014; Nussbaum, 2013; Robinson and Aronica, 2015; Vaughan et al., 2008). While these qualities foster innovation, they also introduce ethical complexities, particularly when navigating conflicts such as reacting against dogma (Lee-Smith, 2019), daring to be disruptive (Lohiser and Puccino, 2019), or managing diverse interpretations of design outcomes (Manders-

Huits and Zimmer, 2013). Reflective practice in design frequently involves engaging with 'otherness,' a concept Pollard (2008) describes as a spectrum of self-expression that challenges perfection and encourages diverse perspectives. By challenging the status quo and exploring alternative viewpoints, designers can contribute to social change and address ethical challenges in their work. For example, designers and design education aim to question traditional assumptions, such as usability or aesthetics to create outcomes that are inclusive and sustainable (ItsNiceThat, 2022; Wired, 2024). Acknowledging this diversity is crucial for understanding reflective practice in design education, where differences in expression and experience are expected and valued.

Throughout the research process, ethical complexities relating to reflective practice and design practice were considered and managed. Ethical approval from the governing university was granted, categorising the research as minimal risk, proportional to the sensitivity of the topic and the participants' roles. As Nixon et al. (2001, p.240) emphasise, ethical research promotes,

> 'Transparency and supports the development of mutually supportive relationships, even in the face of institutional hierarchies and potential inequalities.'

This thesis adhered to the university's ethical policies, ensuring that all participants were fully informed of the research intentions and provided written consent (Appendix 4). Having established the ethical foundations, the research process next involves selecting participants using a sampling strategy to ensure diverse and representative insights into reflective practice are effectively managed.

## 4.4    Sampling

The study's sampling strategy aligns with the phenomenological ethno-case study approach, focusing on participants' individual identities in teaching, support and professional practice to gain a holistic understanding of reflective practice within these contexts. This approach follows Robson's (2002) recommendation that sampling in qualitative research should be carefully organised to ensure participant selection is directly allied with the research objectives.

To ensure transparency and reliability, key characteristics such as sex, nationality, age, academic discipline, and professional background were recorded. This approach reflects Foucault's concept of institutional discourse (Webb, 2013) and Bourdieu's ideas on cultural and social capital (Murphy, 2022), considering how institutional structures and participants' backgrounds influence their engagement

| Postgraduate Learning and Teaching awards (for participants) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Internal | Postgraduate Teacher Training in HE (PgTTHE) | | | | | | | | | | | | X |
| | National | Fellowship of the Advance HE (FHEA) (2023) | | | | | | | | | | | | X |
| **Undergraduate FE and UG Learning Outcomes (for Design Students)** | | | | | | | | | | | | | | |
| | **FE A&D Fnd** | L3 Foundation Diploma in Art and Design (1-unit) | | | | | | | | | | | | X |
| | **UG Design programmes** | Core: Studio Practice Unit 1 | | | Core: Studio Practice Unit 2 | | | Contextual Studies (shared units) | | | Valor units (shared units) | | |
| | | L4 | L5 | L6 | L4 | L5 | L6 | L4 | L5 | L6 | L4 | L5 | L6 |
| 1 | Fashion | X | | | | | X | X | X | X | X | X | X |
| | Fashion Comm. | X | X | | | X | | | | | | | |
| | Textiles | | | X | X | | X | | | | | | |
| 2 | Graphics | X | | | | X | | | | | | | |
| | Illustration | | X | | X | | | | | | | | |
| 3 | 3D Design | X | | | | X | | | | | | | |
| | Interior Design | | | X | X | | X | | | | | | |
| KEY | | X = Selected content | | | | | | | | | | | |

Table 7.    Distribution of University Documents Selected for Potential Inclusion of Reflective Practice Citations.

with reflective methods.

To capture the diverse experiences of reflective practice within the Design department, the sampling process employed both purposive and snowball methods (Robson, 2002). Purposive sampling was used to select participants directly involved in L&T practical and theoretical aspects of design education delivery and study support. Thus, sampling includes a predominance of academics from practice-based design programmes (e.g., fashion, graphic design etc.), those teaching theoretically informed content within the Contextual Studies (CS) provision, and Study Support staff, as a mainstay of HE curricular enhancement for students and offering overt support for reflective practice (Cottrell, 2023). This tripartite strategy ensured a range of perspectives were gathered across the department. Snowball sampling further broadened the scope by including more senior and research-active staff through word-of-mouth recommendations (Robson, 2002).

## 4.4.1   The Setting

The setting of the research, supporting the ethno-case study design, was a design department comprising various subject-specific programmes: FE foundation in A&D and undergraduate courses that support progression to a spectrum of creative industry occupations such as fashion, graphic design, illustration, interior design and textiles (Design Council, 2018). Notably, to ensure anonymity and representativeness, the suite of programmes the participants were associated with were anonymised, and compared against a range of UK HE creative arts departments.

The investigation encompassed these subjects to gain a comprehensive view of reflective practice in design education. L&T provision included core units tailored to each discipline, interdisciplinary collaborative units (*Nexus*), and extra-curricular courses (*Valor*). Study Support, provided by the university's learning development team, integrates reflective practice through workshops and materials (Cottrell, 2023), highlighting the diverse application of reflective methods across HE. Reflective practice likely varies across these programmes due to the different focuses and was consciously examined to understand how these variations influence the L&T of reflection within the department.

Participants were selected based on their involvement with core design programmes, CS, or Study Support, each of which could contribute to a holistic understanding of reflective practice. Given the complexity of roles within the department, ranging from graduate teaching assistants (GTAs) to professors, the sample aimed to capture diverse insights into how reflective practice is understood and applied. This approach sought to identify signature pedagogies and explore

## Professional Values

**In your context, show how you:**

**V1** respect individual learners and diverse groups of learners

**V2** promote engagement in learning and equity of opportunity for all to reach their potential

**V3** use scholarship, or research, or professional learning, or other evidence-informed approaches as a basis for effective practice

**V4** respond to the wider context in which higher education operates, recognising implications for practice

**V5** collaborate with others to enhance practice

## Core Knowledge

**In your context, apply knowledge of:**

**K1** how learners learn, generally and within specific subjects

**K2** approaches to teaching and/or supporting learning, appropriate for subjects and level of study

**K3** critical evaluation as a basis for effective practice

**K4** appropriate use of digital and/or other technologies, and resources for learning

**K5** requirements for quality assurance and enhancement, and their implications for practice



## Areas of Activity

**In your context, demonstrate that you:**

**A1** design and plan learning activities and/or programmes

**A2** teach and/or support learning through appropriate approaches and environments

**A3** assess and give feedback for learning

**A4** support and guide learners

**A5** enhance practice through own continuing professional development

Figure 25.    Professional Standards Framework for Teaching and Supporting Learning in Higher Education. Reproduced from Advance HE (2023, p.5). Reproduced with permission under license from Advance HE.

potential differences across staff roles, contributing to discourses on professional identity in HE (Archer, 2008; Obexer, 2022) and in A&D (Shreeve, 2011).

Participant recruitment was based on data provided by the department administrator and utilised insider networks to facilitate snowball sampling (Robson, 2002). The department population was estimated at over sixty members. Table 5 provides a breakdown of staff across job titles, programmes, and responsibilities, informing the sampling frame to ensure representativeness. The final sample included twenty-three participants, representing approximately one-third of the department's population (Table 6).

## 4.4.2    Sample Characteristics

The sample of twenty-three participants comprised fifteen females and eight males, reflecting the department's female-dominated workforce. This sample size exceeds those in similar studies (James, 2007; Ali, 2020), potentially enhancing the trustworthiness and validity of the findings (Miles et al., 2020).

Participants spanned various levels within design education, from Further Education (FE) to postgraduate, with a fairly balanced distribution of roles: seven lecturers and senior lecturers (SLs), and three each in the roles of GTA, CS academics and Study Support staff. Most participants were involved in teaching core practical design skills and knowledge, with the potential to emulate Schön's (1983, 1987) reflection-in-and-action practices and conversations within the situation of the design studio. The inclusion of staff from CS and Study Support added broader perspectives on reflective practice, resonating with Finlayson (2015) and Marshall's (2019) broad purview across HE.

Senior lecturers made up the majority of the sample, indicating a strong foundation of experience that could inform their understanding and application of reflective practice. The inclusion of GTAs, recently educated within the department, offered insights potentially influenced by their recent academic attainment. Additionally, one Study Support participant was also a lecturer in another department, working part-time in both roles, further enriching the diversity of perspectives of reflective practice.

Most participants were British, with all core design subject lectures having studied A&D within the UK. Over half had studied within the selected department, suggesting an embedded institutional culture. A majority were teacher-trained or actively seeking teaching qualifications, potentially influencing their perspectives on reflective practice. This composition reflects Bourdieu's concept of cultural capital, where individuals with deeper institutional experience may hold greater knowledge

and status, affecting their views and practices (Murphy, 2022). Foucault's notion of power dynamics further suggests that these internal hierarchies and embedded cultural capital shape how reflective practice is perceived, valued, and implemented within the department (ibid). Including a mix of academic and support staff offered a comprehensive exploration of reflective practice. The inclusion of Study Support staff, although a minority, provided valuable perspectives from outside the core academic environment, yet aligned with Hallett's (2013) assertion of their often-distanced role from academic departments. This varied representation enhances the study's capacity to capture a wide range of insights into reflective practices within the Design department.

In summary, this purposive sampling strategy ensured diverse representation across genders, contractual statuses, academic roles, and professional experiences. This diversity sets the stage for the exploration of the research methods that follow, detailing the data collection and analysis techniques used to rigorously examine and interpret the understanding of reflective practice..

## 4.5    The Research Methods

Research methods refer to the systematic techniques and procedures used to collect, analyse, and interpret data. These methods are chosen based on the study's methodology, objectives, and the nature of the research questions, ensuring the reliability and validity of the findings (Punch, 2014). The research design for the thesis is structured to align with a phenomenological exploration of the understanding and application of reflective practice, within an ethno-case study context of design education and a specific investigation of a selected HE design department.

The thesis methodology integrates multiple methods embracing A priori and A posteriori data ensuring a comprehensive approach to data collection and analysis (Guba and Lincoln, 1994b). A priori data was derived from pre-existing institutional documents and literature, providing a foundational context for understanding how reflective practice is framed within the department. In contrast, A posteriori data was collected through primary research methods: semi-structured interviews and a visualisation task, offering different insights into the lived experiences and perceptions of participants. According to Casullo (2013), the distinction between A priori and A posteriori knowledge is fundamental in understanding different sources of knowledge. However, this distinction is not without challenges, including issues of coherence, vacuousness, and significance (ibid). While these challenges are acknowledged, this research uses the A priori and A posteriori distinctions as a framework for systematically exploring both theoretical and practical dimensions of reflective practice.

Ultimately, the primary focus of the study is on A posteriori analysis, which directly aligns with the overarching research question to investigate reflective practice in design education, and the A priori data provides essential contextual insights that inform the study's theoretical underpinnings. The next section outlines the methods employed to gather both types of data.

## 4.6     Data Collection

Data collection for this research is meticulously designed to investigate the understanding of reflective practice across two key phases that include secondary research material, such as institutional documents and literature, and the collection of data through primary research methods. This approach ensures a comprehensive exploration of reflective practice from both theoretical and practical perspectives (Guba and Lincoln, 1994a).

### 4.6.1     A Priori Data: Content Analysis

A priori data forms the foundational context of this study, offering essential insights into how reflective practice is theoretically and institutionally framed. This includes documents such as unit specifications that participants encounter in their roles. This aligns with Foucault's concept of institutional discourse, which highlights the relationship between power and knowledge in shaping professional practices (Webb, 2022), and Bourdieu's notion of cultural capital, which influences professional identities and pedagogical approaches (Murphy, 2022). Additionally, Schön's (1975) perspective on organisational change emphasises that institutions must engage in continuous learning and reflection to adapt to an evolving environment. By examining university documents, this study explores the frameworks that shape reflective practice and organisational learning within the department. While A priori and A posteriori classifications provide a useful structure for this study, they may not fully capture the dynamic and context-specific nature of reflective practice in the Design department. Therefore, the combination of content analysis (CA), interviews, and visualisation tasks is intended to reveal tacit knowledge and address these complexities as comprehensively as possible.

To systematically review both the official and less formal documents relevant to the study, CA was employed. This method facilitates both quantitative and qualitative examination of materials (Saldaña, 2021), considering explicit and implicit references to reflective practice. The dual focus of manifest and latent CA assists in identifying both overt mentions of reflective practice and the underlying assumptions and ideologies that may inform perception within the department.

REFLECTION *IN* ACTION

*Reflecting as something happens*
• Consider the situation
• Decide how to act
• Act immediately

REFLECTION *ON* ACTION

*Reflecting after something happens*
• Reconsider the situation
• Think about what needs
  changing for the future
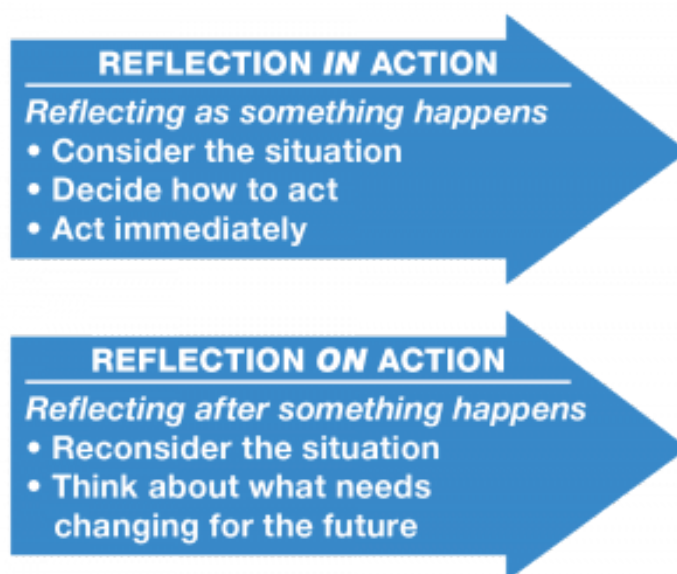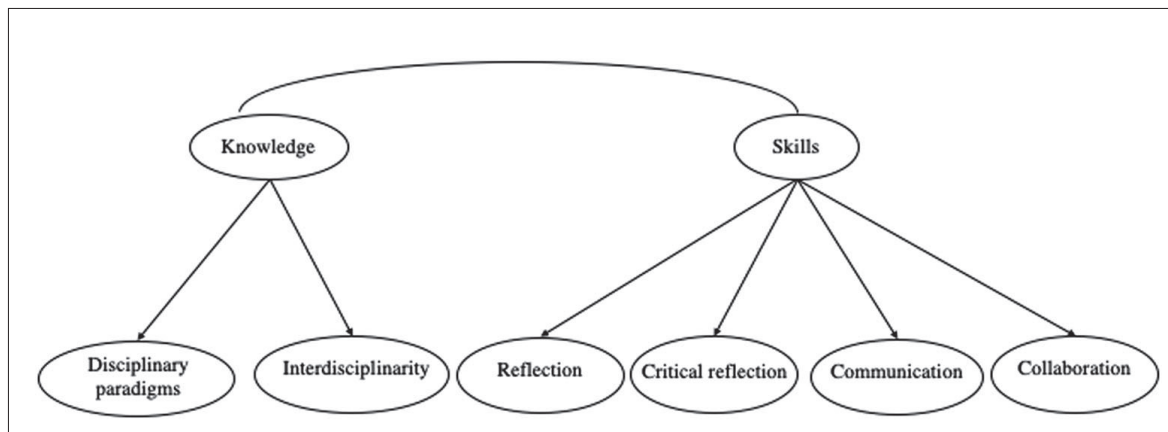
Figure 26.    Simplified Conceptual Model of Interdisciplinary Understanding. Reproduced from Schijf et al.. (2023, p.433). Reproduced with permission from the authors: Jennifer Schijf, Greetje van der Werf, and Ellen Jansen.

Figure 28.    Model of Reflection-in-and-on-Action. Image by Said Nasser Al-Amrani (2021). Reproduced from Third (2022, p.31) under Fair Dealing for educational purposes and with permission from the author.

A PLAN

D PLAN

PRECINCT

15' 5'

B SECTION

NOOKS

SUMMER

WINTER

GALLERY

E SECTION

5'

NOOKS

C SECTION

86

87

*Appendix B*



**Figure A2.** Graphical representation of the higher-order model.
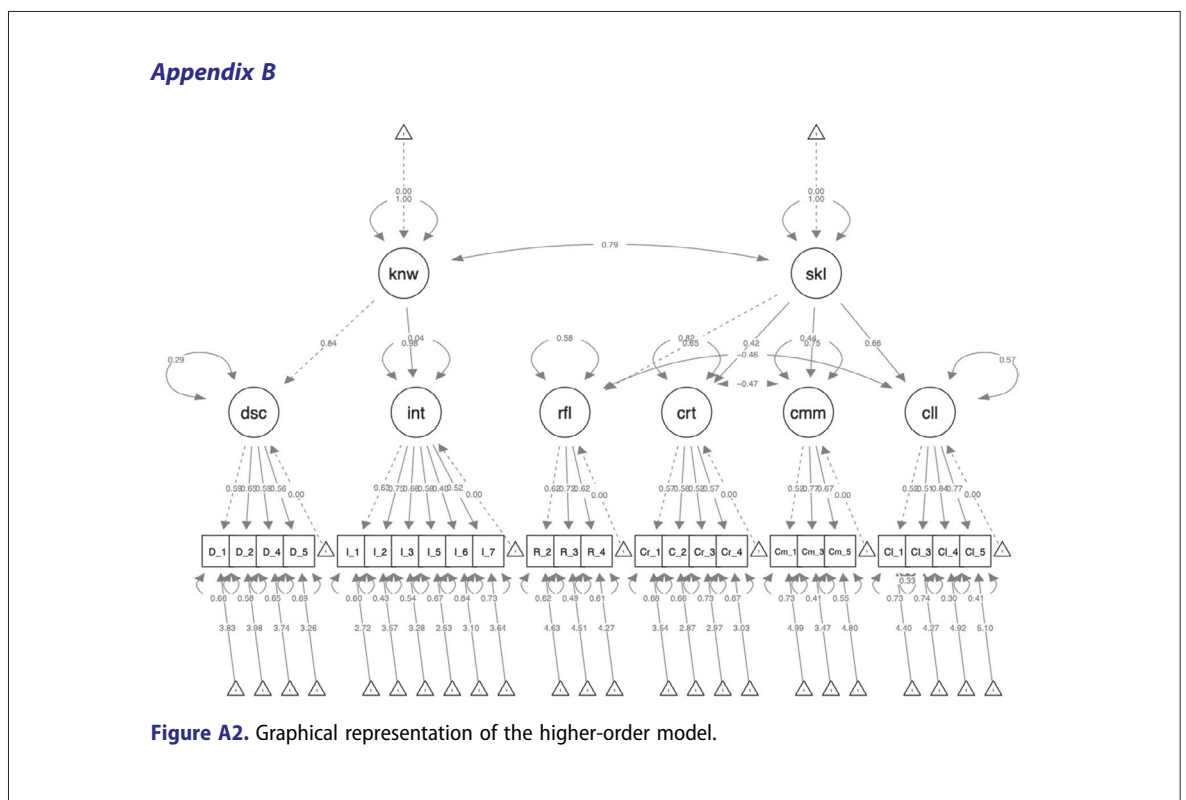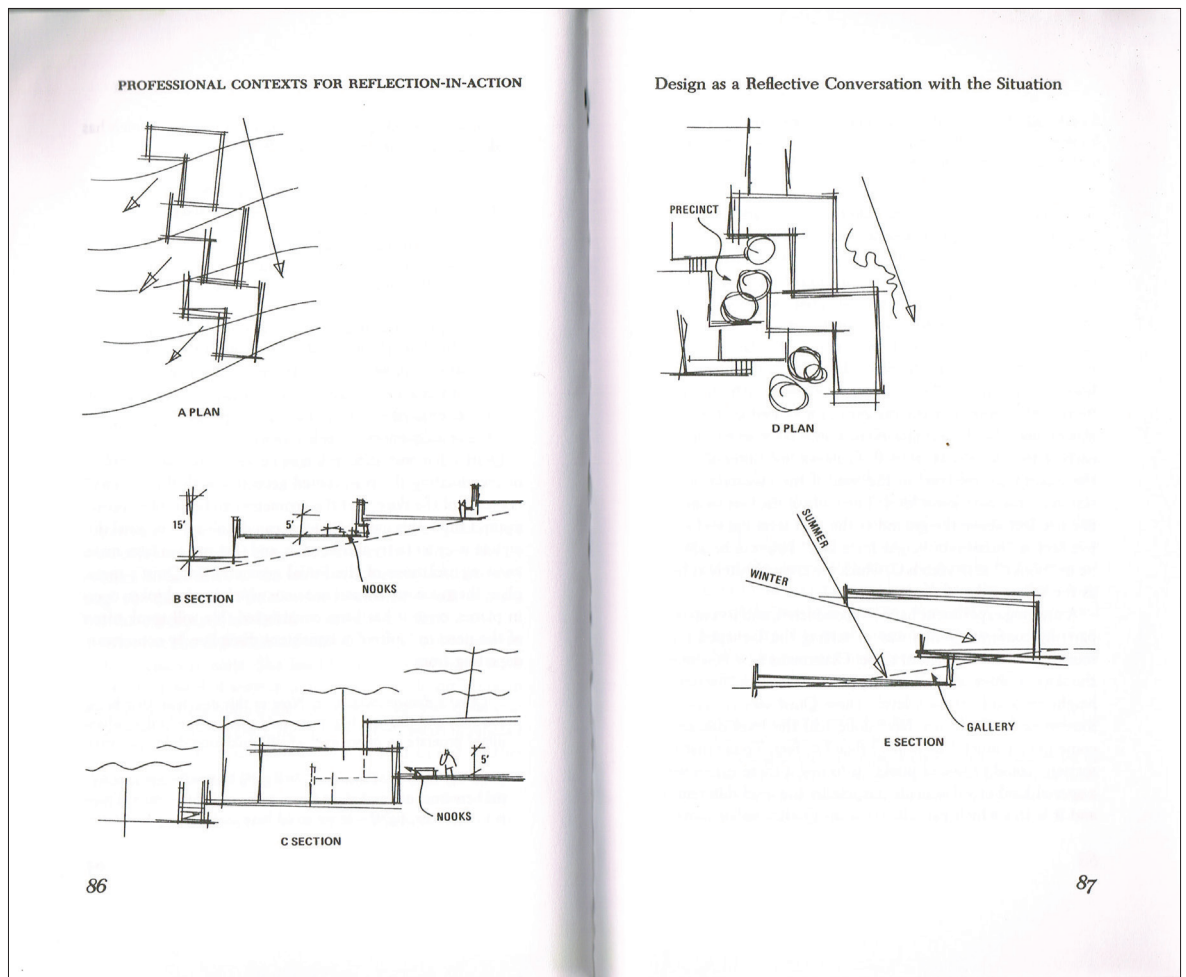
Figure 29. Professional Conversations for Reflection-in-Action: Design as a Conversation with the Situation. Reproduced from Schön, D. A. (1983, pp.86–87). Copyright © 1983, 1991 by Basic Books, Inc. Reproduced with permission.

Figure 27. Graphical Representation of the Higher-Order Model. Reproduced from Schijf et al. (2023, p.447). Reproduced with permission from the authors: Jennifer Schijf, Greetje van der Werf, and Ellen Jansen.

Selecting documents for CA followed Robson's (2002) recommendations, involving a proportionate review rather than an exhaustive examination of all material related to reflective practice. Predominantly, A posteriori data were collected in-situ as intrusive documents, such as audio recordings of participants' understanding of reflective practice. This data enabled phenomenological insights to be gained directly from departmental staff. However, to best interpret this understanding, it was fundamental to consider A priori unobtrusive secondary research material to ascertain if there were any links between departmental or university views of reflective practice and participants' perceptions.

Formal documents to analyse included content provided by the university's central Learning and Teaching Department (LTD), study support services, and learning outcomes (LOs) derived from two sources within the Design department. These documents comprised unit specification documents related to postgraduate teacher training, which participants might encounter while undertaking this programme, typically required within two years of employment by the university, and undergraduate Design programme unit specifications content, which participants would engage with during planning and delivering L&T sessions. All citations of reflective practice sourced from the university website were also included (Table 7).

Table 7 visualises the intention to review a cross-section of material that may reference reflective practice. This included mainly internal materials although one set of external documents were also included as a potential benchmark for comparing the department's practices and standards against broader, external educational expectations, providing a more comprehensive understanding of how reflective practice is positioned both within and outside the institution. Therefore, content from Advance HE (2023), as a global organisation working with HEIs to enhance teaching practices for both students and staff and wider society, was included in the data set for analysis. Specifically, the Professional Standards Framework (PSF) (Figure 25) as an authoritative source that showcases standards of best practices in L&T.

The PSF standards are 'fit-for-the-future', (ibid, online) aiming to ensure teaching practice is relevant and captivating across all sectors and disciplines. This encompasses professional values, core knowledge, and areas of activity, which L&T methods should be linked to. The PSF's emphasis on professional values aligns with Schön's (1983) concept of reflection-in-action, as it encourages educators to engage in continuous, real-time reflection on their practices, fostering a dynamic and responsive approach to professional growth and development. Further to undertaking teacher training, staff can engage in further progression opportunities to attain statuses of senior and principal fellowships that link to the PSF.

From the icontent identified in Table 7 for A priori content analysis, a set of learning outcomes (LOs) were randomly selected. This choice includes the postgraduate L&T course details from its webpage and the undergraduate programme. These LOs potentially relate to reflective practice that participants might encounter during teacher training or while facilitating teaching or support. For instance, direct references to 'reflective practice' may be cited, or phrases such as 'engage in reflecting on design experiments' or 'use reflective thinking skills in team working', While LOs may be critiqued for aligning with neoliberal quality and efficiency standards, they necessitate effective teaching to foster learning and understanding (Maher, 2004). This objective underscores the importance of scrutiny before obtaining insights from staff who have facilitated reflective practice in such circumstances. This careful approach helps address concerns raised by Casullo (2013) regarding potential issues such as incoherence or vacuousness in distinguishing between A priori and A posteriori knowledge. By thoroughly scrutinising the data, the research aims to ensure that insights reflect the true experiences of staff, thus resolving complexities and reinforcing the validity and reliability of the findings. The 'X's in Table 7 show the selected LOs were sourced across all levels of undergraduate study (from FE and levels 4-6 as first, second and final years of the programme), and that these programmes were grouped into sets of similar signature pedagogies for shared delivery of CS and *Nexus* units (e.g. Group 1 comprised all fashion-related subjects).

Further to the formal content, informal material for CA included documents that were not officially authorised within the department. This material consisted of design briefs, as a signature pedagogy in A&D (Sims and Shreeve, 2012). A brief serves as a guide for summative assignments linked to the units of study and LOs, which are informally written by academic staff in the role of Unit Leader. All staff involved in teaching or supporting units should adhere to these documents, which can independently 'trigger reflection' (Sosa, 2010, p.3). These briefs aim to mirror professional design practice, aligning with Schön's (1983) emphasis on the importance of reflective practice in developing professionalism. Additionally, each academic participant was asked to randomly select a brief, for continent analysis, related to a core unit from any level of the undergraduate programme they taught. The shared and collaborative unit briefs (CS and *Nexus*) were also included in this data set, which culminates the taxonomy of documents for A priori analysis, leading to the second set of data to be collected, which more directly informed the primary focus of the investigation of reflective practice.

## 4.6.2  A Posteriori Data: Semi-Structured Interviews and Visualisation Tasks

The A posteriori data collected through interviews and the visualisation tasks were the primary sources of insight into how reflective practice is perceived and enacted by participants. This phase of data collection is essential for exploring the lived experiences of academics, aligning with the phenomenological ethno-case study approach of the study. The rich, qualitative data derived from these methods is expected to provide deeper insights into how reflective practice is integrated, or not, into the daily professional lives of the participants working within the Design department.

## 4.6.2.1 Semi-Structured Interviews

Semi-structured interviews were deemed most appropriate for this investigation due to alignment with the interpretivist and constructivist stance of the research, and Schön's (1983) epistemology of constructivist world-making, which suggests individuals actively construct and reconstruct their understanding of the world through reflective practice, which would ideally be enacted during the interview. This approach allowed for in-depth exploration of participants' subjective meanings and experiences, providing rich, detailed data that reflected their characteristic perspectives and understandings (Denscombe, 2010; Kvale and Brinkmann, 2015).

In line with interpretivism, which seeks to uncover the complex, context-dependent nature of human experiences, semi-structured interviews offer the flexibility to probe deeper into participants' views and interpretations (Bryman, 2016). This approach is consistent with phenomenological methodology, which focuses on exploring individuals' lived experiences and the meanings they derive from them. Constructivism further supports this method by emphasising how individuals construct their own understanding through interactions and reflections (Piaget, 1972; Vygotsky, 1978). The semi-structured format facilitates a dynamic exchange, enabling participants to articulate their thoughts and experiences in their own terms while allowing the researcher to adapt questions based on emerging insights (Rubin and Rubin, 2011). This approach is congruent with the conceptual and theoretical frameworks of reflective practice, which values the nuanced and context-specific nature of individuals' reflections and learning processes (Schön, 1983; Moon, 2013).

Interviews were scheduled to align with the academic cycle, minimising participant concerns related to performance pressures, which could otherwise limit their engagement in the research (Ball, 2003). To reduce potential interview-related anxieties, an interview checklist and consent form were emailed to each participant in advance, following Robson's (2002) guidance. Interviews were conducted on-campus in familiar rooms, lasting approximately thirty to forty-five minutes. For participants who worked part-time and rented studio spaces, the option to meet in their studio was offered, enhancing the naturalistic environment of the ethno-case

study approach (Riain, 2009). Room locations included participants' offices and spaces near studio areas, reducing the likelihood of interview cancellations due to teaching or support commitments.

This study condcuted twenty-three interviews with participants across the Design department. Aligning with the ethno-case study approach. Parker-Jenkins (2018) notes that an appropriate number of interviews to conduct is flexible. The sample size in this investigation, though smaller than the estimated thirty to fifty, recommended for ethnographic research by Morse (1994), was considered sufficient to garner rich insights into reflective practice.

## 4.6.2.2        The Interview Checklist

An interview checklist was developed to support research continuity and ensure the validity and reliability of the data collected (Robson, 2002). This checklist included formulating, prioritising, and sequencing the questions. The checklist was divided into three sections: icebreaker questions regarding demographics and employment statuses, core questions on reflective practice within the university/ department and the participants' professional practice, and summary questions to conclude the interview (Leech, 2002) (Appendix 5). The checklist was reviewed by the researcher's peers on the Doctorate in Education programme to aid refinement and ensure true insights were gathered (Miles, et al. 2020). Feedback included developing a visualisation task, designed to complement the verbal data collected during interviews.

## 4.6.2.3        The Visualisation Task

A visualisation task was included due to its relevance in design education, where visual thinking is integral to design practice (Sims and Shreeve, 2012). Furthermore, visual elicitation can encourage educators to articulate their thought processes, providing additional insights into their understanding of reflective practice (Myers, 2023). Drawing on Miller's (1987) theory of material culture, the study explores how drawing and visualisation influence the understanding of reflective practice in design education. For instance, interdisciplinary understandings of knowledge by students across various disciplines, including arts and liberal arts, in HE were depicted both simplistically (Figure 26) and more complexly (Figure 27) (Schijf et al., 2023, pp.433, p.447). The simple version includes six elements, with reflection and critical reflection presented as distinct skills. This difference in visual outcomes further highlights similarities and differences in reflective practice skills and terminology, and a potential association between mind-and-body dualism. This

lends potential support for Schön's similar epistemology (Kinsellla, 2009) and inclusion of such a task in the data collection of this study. The simple illustration (Figure 26) clearly shows the relationships between knowledge and skills, cognitive and kinaesthetic practices, which resemble the basic format of many reflective practice models, such as Schön's (1983; 1987) reflection-in-and-on-action. This is represented by Al-Amrani in Third's (2023, p.31) book, Reflective Practice in Early Years Education (Figure 28), which depicts two arrows that indicate the ongoing process of thinking in-and-on-action (Schön, 1983, 1987). While this dualistic model is similarly represented across many disciplines, such as early years education, midwifery, nursing, and HE Study Support (Gordon, 2017; NursingAnswers.net, 2018; University of Hull, 2024; Wain, 2017). However, Schön's own illustrations (1983, pp.86-87) (Figure 29) differ widely, depicting dynamic interrelationships occurring as 'reflective conversations within the situation' during a design crit, which are more complex than the simple double arrow illustration.

This difference in drawings is mirrored in the aforementioned intricate graphic representation of interdisciplinary understandings of reflective practice in HE by Schijf et al. (2023, p.439) (Figure 27). Despite using only simple shapes, arrows, and minimal labelling, this diagram can be challenging to comprehend.

Collectively, these illustrations (Figures 26-29) endorse the breadth of visual understanding of reflective practice, paralleling the understanding of reflective practice presented in verbal and textual formats in empirical, theoretical, and systematic research (James, 2007; Kinsella, 2009; Marshall, 2019) Consequently, the variations in these drawings support further investigation via visual elicitation, which is useful for potentially revealing educators 'tacit knowledge and supporting the search for meaning (Myers, 2023). Notably, the visuals used by Myers were selected from L&T resources, whereas the thesis research uses drawings made in situ, in-and-on-action, aligning with Schön's (1983) dual model that assists in applying the theory of reflective practice. Thus, the visualisation task serves as both a practical method and a phenomenological approach, functioning as a pictorial metaphor (Hartel et al., 2018) to prompt memory recall, enhance interview flow, and foster empathy between the researcher and participants (Rueb et al., 2024).

Participants were asked to create a drawing or diagram to illustrate their understanding of reflective practice at the start of the interview as an ice breaker, allowing time for quiet contemplation while engaged in the task. Furthermore, in response to peer feedback, the task was repeated at the end of the interview to align with Schön's (1983, 1987) reflection-in-and-on-action model, allowing for comparison between these two outcomes and insights into differences between verbal and visual representations of reflective practice. Drawing materials were provided: artist-quality coloured pens, a range of pencils and white A4 paper. No

| Recording unit | Coding unit | | Context unit | | | | |
|---|---|---|---|---|---|---|---|
| | Word type | Frequency | Context of the word | Affect / emotions | Target audience e.g. PG/UG L4-L6 | Disciplinary focus | Author and status/ role |
| 1. Teacher training / academic support | e.g. Reflect / reflects / reflective / reflection, etc. | | | | | | |
| 2. Unit Learning Outcomes | | | | | | | |
| 3. Design briefs / assignments | | | | | | | |
| 4. Study skills material | | | | | | | |
| 5. Participants' recommended sources | | | | | | | |

Table 8.        Template for Content Analysis of secondary sources relating to reflective practice in the Design department.

119

specific time limit was set for task completion to minimise performance anxiety.

## 4.6.2.4    Pilot Interviews

Two pilot interviews were conducted to validate the interview checklist and visualisation task, ensuring their effectiveness in capturing the necessary data (Punch, 2014). The data were transcribed and thematically organised into 'plus,' 'minus,' and 'interesting' categories, using Edward de Bono's (2014) lateral thinking tool, which enhances decision-making and critical thinking in creative endeavours (Jefferies, 2021; Lamm and Brewer, 2014). The pilot interviews confirmed the comprehension, priority, and sequencing of the checklist questions, developed the researcher's skills and confidence in probing and prompting, and demonstrated that audio recording was preferable to note-taking for accuracy. Additionally, the visualisation task was validated as a valuable tool. Sending the checklist in advance, along with the research information and consent forms, encouraged participant preparation and ensured they understood the implications of participating in the research, aligning with guidance from Cohen et al. (2018).

Subsequently, the actual semi-structured interviews were scheduled from May to January, spanning the end of the academic cycle when teaching commitments were reduced, which suggested greater participant availability. The interview data were securely stored on a password-protected hard drive, in compliance with research ethical practices (Staffordshire University, 2019), which culminates the preparation and planning for data collection.

In summary, this section outlined the comprehensive data gathering methods employed in the thesis investigation. The strategic use of both A priori and A posteriori data through CA, semi-structured interviews, and a visualisation task to ensure a rich exploration of reflective practice within the Design department. These methods, grounded in a robust methodological framework and supported by a detailed and iterative research design, provide the necessary foundation for the subsequent stages of data analysis.

## 4.7    Data Analysis

This section culminates the planning of the thesis investigation, focusing on the analysis methods that align with the multi-layered, phenomenological ethno-case study approach to investigating reflective practice within a Design department. The analysis considers deductive and inductive approaches, addressing concerns related to using multiple methods to gain an expanded understanding of reflective practice.

The selected analysis methods correspond with the data collection methods, including content analysis (CA) of A priori data and thematic and visual analyses of A posteriori data derived from semi-structured interviews and visualisation tasks.

### 4.7.1    Deductive and Inductive Analysis Approaches

In qualitative research, deductive and inductive approaches are employed to analyse data. A deductive approach, as a top-down method, uses pre-existing concepts to inform data interpretation (Braun and Clarke, 2022). This method is beneficial for comparing and enhancing the clarity and robustness of categorising and understanding primary research data (Ravitch and Riggan, 2012). Conversely, an inductive approach, a bottom-up method, relies on evidence from primary research data to form conclusions, ensuring direct associations between the data and the researcher's insights (Braun and Clarke, 2012). Both approaches can work together, with deductive analysis providing a theoretical foundation and inductive analysis developing new insights from real-world observations (Miles et al., 2020).

### 4.7.2    A Priori and A Posteriori Data Collection and Analysis

When discussing data analysis methods, particularly thematic analysis, it is essential to acknowledge that inductive themes derived from the A posteriori interviews will be analysed phenomenologically to capture the lived experiences of design educators. These themes will be considered alongside A priori material that mentions reflective practice, aligning with Foucault's lens to understand institutional discourses and Bourdieu's position to explore social structures and cultural capital influences on these experiences (Murphy, 2022). The thesis investigation, rooted in phenomenology, seeks to understand reflective practice within a HE department, suggesting that an inductive approach is suitable for data analysis. However, responding to the ethno-case study framework, deductive analysis is also relevant. This dual approach allows the setting's context to be considered while enabling participants' views to be interpreted within the broader context of design education.

### 4.7.3    Selection of Data Analysis Methods

Qualitative analysis in social science research encompasses various methods that support data organisation, stability, and resilience (Ravitch and Riggan, 2012). These span Tesch's (1990) forty-six labels, cited by Robson (2002), refined into four basic tenets: language/words, regularity, editing, and reflection, culminating in data immersion, to Braun and Clarke's (2022) six-step approach; data familiarisation,

generating codes, identifying, refining, and defining themes, and concluding with a report. This method appears comprehensive and accessible, especially for a novice researcher. Additionally, Bree and Gallagher (2016) advocate for using software like Excel to manage data, a recommendation supported by Mayer et al. (2018), who suggest combining analogue and digital methods in design research..

## 4.7.4    Concerns with Data Analysis Methods

Despite the variety of methods available, several concerns arise in qualitative data analysis. As the primary instrument in the research process, the researcher may encounter challenges due to inexperience with deep analysis, data scrutiny, and identifying significant insights (Merriam and Tisdell, 2016). Potential risks include data overload, the influence of initial biases, and misinterpreting recurrent themes as significant when they may not be (Robson, 2002).

To address the risk of inexperience, this research follows Braun and Clarke's (2022) six-step approach to qualitative analysis, which provides a clear method for handling and interpreting data. Additionally, the use of tools like Excel for data organisation (Bree and Gallagher, 2016) further aids in managing the analysis process, helping the researcher avoid common pitfalls that can arise due to lack of experience.

Data overload is a potential issue when dealing with large volumes of qualitative information. However, this research addresses the risk by employing proportionate CA following Robson's (2002) recommendations. Instead of an exhaustive review of all material, a strategic selection process is used, which helps limit the amount of data to be reviewed, preventing overload while still ensuring comprehensive coverage of relevant material.

To minimise initial biases, the research includes a reflexive process. Semi-structured interviews were designed to be flexible, allowing for deeper probing while avoiding preconceptions. Additionally, the interview questions were refined through peer review and pilot testing ensuring that they are free from bias and capable of capturing authentic insights. This iterative approach ensures that the researcher's pre-existing assumptions do not unduly influence the data collection and interpretation process.

There is always a risk of misinterpreting recurrent themes as significant when they may not be. This research mitigates that risk by using both deductive and inductive analytical methods. By combining these approaches, the research ensures that themes are grounded in existing theoretical frameworks and directly emerge from the participants' lived experiences. This allows for a thorough and nuanced analysis,

reducing the likelihood of over-emphasising coincidental patterns.

In conclusion, these risks are effectively managed throughout the research design. The use of structured analytical frameworks mitigates challenges related to inexperience. Data overload is handled through selective content analysis, while reflexivity, peer review, and pilot testing minimise the influence of biases. Finally, combining deductive and inductive approaches ensures that recurrent themes are interpreted accurately, contributing to the overall validity and reliability of the findings.

## 4.7.5　Data Analysis Methods

As a summary of the selected data analysis methods, these include content, thematic, and visual analyses. Secondary research material was analysed using CA to gain insight into the setting, supporting Parker-Jenkins (2018) novel ethno-case study approach. Primary research, including semi-structured interviews and visualisation tasks, were analysed using thematic and visual analysis methods.

### 4.7.5.1　　　Content Analysis

CA involves two branches: conceptual and relational (Mayring, 2014). Conceptual analysis focuses on the existence and frequency of words, while relational analysis examines connections, including affect, extraction, proximity analysis, and cognitive mapping. Both methods were applied to the data collected for this investigation, following Mayring's (2014) three rules: recording, coding, and context units (Table 8). The recording units included content related to teacher training, unit LOs, design briefs, and Study Support material (Section 4.6.1, Table 7). The coding units involve quantitative and qualitative analyses to understand the frequency and context of reflective practice references. The context units consider full paragraphs to provide deeper insights into the emotional content and intended meaning of reflective practice.

### 4.7.5.2　　　Thematic Analysis

Thematic analysis (TA) identifies and makes sense of commonly expressed thoughts about a topic (Maguire and Delahunt, 2017). This method systematically organises data to reveal shared meanings and experiences across participants (Braun and Clarke, 2022). TA supports the thesis topic by exploring reflective practice within a Design department. Following Braun and Clarke's (2022) guidance, TA commences with data familiarisation, where the audio recordings

of interviews were transcribed using software applications like Otter.ai (2021). The textual data was then assembled into a table aligned with participants' responses to the interview checklist, allowing an accessible summary of reflective practice understandings. Further data familiarisation involved repeated readings of transcripts to reveal nuanced insights that accurately reflected participants' lived experience. Researcher responses were added in a separate column, with initial codes generated based on theoretical frameworks and participants' observations. These codes were then organised into themes, with key thoughts and participant extracts added to an Excel sheet for refinement and comparison. This rigorous process resulted in the emergence of key themes, which were repeatedly reviewed and refined throughout the analysis.

## 4.7.5.3    Visual Analysis

Visualisation task outcomes can be analysed in two ways. First, following common methodological practice in visual elicitation methods (Rose, 2023), the drawings made by participants will be used to foster nuanced insights into reflective practice, potentially making tacit knowledge explicit and revealing what is difficult to articulate verbally (Polanyi, 1967). This method supports understanding similarities or differences in judgement across verbal and visual methods of reflective practice. Second, the drawings were analysed collectively for contrast-comparison and insights into disciplinary or shared understandings. Visualisations can be interpreted quantitatively, qualitatively, or both (Chen and Floridi, 2013). The frequency of repeated images or symbols were calculated, suggesting a shared understanding of reflective practice. Key design principles, such as balance, emphasis, proportion, and hierarchy (Agrawala et al., 2011), were considered to assist in this analysis (Appendix 6).

Ultimately, the data analysis process employed a combination of verbal, textual, and visual methods, supporting multimodal reflective practice and data triangulation, as recommended by Ritchie and Lewis (2003t), to generate an expansive understanding of reflective practice within the Design department. The careful application of content, thematic, and visual analyses ensured a comprehensive exploration of the research questions, contributing to a deeper understanding of reflective practice in this academic context.

## 4.8    Summary of the Methodology

This chapter outlined the methodological framework used to explore reflective practice within a HE Design department. The study employed a multi-theoretical

approach, primarily rooted in phenomenology, and further supported by Bourdieu's theories of social structures and Foucault's analysis of power dynamics (Murphy, 2022). These frameworks ensured a comprehensive understanding of reflective practice as both a personal and socially constructed phenomenon.

A phenomenological ethno-case study approach was adopted, combining the analysis of A priori data (institutional documents) with A posteriori data (semi-structured interviews and visualisation tasks). This method enabled the investigation of both theoretical and practical dimensions of reflective practice. CA was employed for institutional documents, while thematic and visual analysis techniques were applied to interview transcripts and participants' drawings.

The research design utilised both deductive and inductive approaches to ensure findings were grounded in established theories while allowing new insights to emerge from the data. The study also addressed potential concerns related to inexperience, data overload, and bias by incorporating structured frameworks and reflexivity throughout the research process. The next chapter presents the key findings and discussion from the data analysis, using these methodological tools to offer an in-depth exploration of reflective practice in design education.

# Chapter 5. Analysis and Discussion

This chapter presents the core findings of this study that investigates the understanding of reflective practice within the Design department in the selected university. A two-part method was used. First A priori data comprising university resources were analysed to understand the presentation of reflective practice across the institution. Second, A posteriori data, gathered from semi-structured interviews with Design lecturers and support staff were reviewed to understand the lived experience of reflective practice. The research employed a multi-methods approach, which is common practice in social science research (Braun and Clarke, 2022). The A priori analysis used an inductive, content analysis (CA) method to identify key themes from the data without acknowledging existing frameworks. This supported the identification of potential influences on participants' conceptualisations of reflective practice. The A posteriori analysis applied a more deductive, thematic analysis approach, acknowledging the signature pedagogies in art and design (A&D) (Sims and Shreeve, 2012) against the university's learning and teaching (L&T) practices and key findings from the A priori analysis. By analysing A priori and A posteriori data, the research offers a comprehensive understanding of individual perceptions of reflective practice while recognising existing structures in the department and wider university. Juxtaposing these standpoints offers new insights into reflective practice within design education. Subsequent sections explore key themes, implications, and potential for future research.

For clarity in this chapter, Design (capitalised) refers specifically to the Design Department and associated elements, while design (lowercase) refers to the broader discipline (see Glossary, after the Table of Contents for further details).

## 5.1    The University Context, Theoretical Engagement and Practical Applications (A Priori)

A systematic content analysis of selected A priori data associated with reflective practice provided a baseline for the thesis investigation. This comprised three data sets of material (Table 7, Chapter 4, Methodology, 4.6.1) with pseudonyms used to support anonymity, such as programme and unit titles.

The first data set analysed was the Postgraduate Teacher Training in HE (PgTTHE) programme overview, learning outcomes (LOs), and the UK Professional Standards Framework (PSF) (Advance HE, 2023). Second, university wide material from the L&T Development unit (LTD), offering general pedagogical guidance; the *Valor* programme, an extra-curricular programme designed to enhance student's skills beyond degree programme curricular, and Study Support services content. Third, design-specific data, including standardised LOs from eight undergraduate programme unit specification documents and associated assignment briefs. This

| Themes | Postgraduate content | University-wide material | Design-specific documents |
|---|---|---|---|
| **Integration and emphasis** | Focus on critical reflection and 'reflective notetaking'; emphasis on theory. | Inconsistent use across departments: LTD emphasis on 'reflect' and an endpoint reflection. Valor cites reflective practice and reflection and promotes personalised model. Study Support uses both. | Variable integration, rarely 'reflective practice', often linked with critical thinking (critical reflection); critical thinking inconsistently emphasised. |
| **Theoretical underpinnings** | Implicit integration of theoretical frameworks; lack of explicit references to models. | Diverse theoretical engagement: LTD limited, Valor robust, Study Support mixed. | No reference to reflective practice theories in Learning Outcomes and assignment briefs. |
| **Critical reflection** | Strong emphasis on critical reflection; aligned with professional standards for HE teaching. | Varied emphasis: LTD surface level, Valor rigorous and promotes personalised model; Study Support mixed. | Frequent mentions but lacks depth; often conflated with critical thinking (confusion). |
| **Praxis** | Supports practicethrough emphasis on experiential learning; focus on developing teachers practice. | Valor promotes practice through experiential learning and tacit knowledge. LTD and Study Support focus on endpoint reflection. | Strong emphasis on praxis through experiential learning and tacit practises. |

Table 9.        Reflective Practice Framework: A priori analysis themes
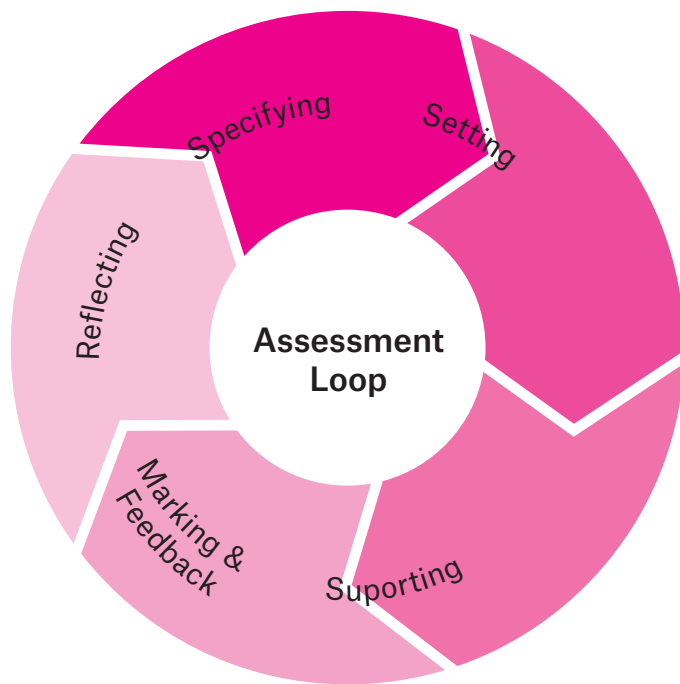
Figure 30        Assessment Loop, LTD Team (adapted from the selected university,
                 A Priori material).

material covered a range of design-specific subjects commonly taught in many design departments within UK HE. To maintain confidentiality, both the subjects and study participants were anonymised.

This data were reviewed using mainly qualitative analysis methods to identify the prevalence and meaning of references to reflective practice in informing L&T in the department. Findings were documented in Microsoft Excel to support organisation (Bree and Gallagher, 2016). Synthesising the findings provided an integrated and insightful approach, supporting the qualitative, phenomenological, ethno-case study research design. To present the findings and discussion coherently, a framework approach was adopted prior to a narrative discussion. This approach aligned the analysis with four identified themes examined across the three datasets (Table 9).

The framework facilitated a systematic and comprehensive exploration of the representation and application of reflective practice within the university, providing insight into the interconnections between the themes and the implications for L&T and professional practices.

## 5.2    Narrative discussion: A Priori Orientation of Reflective Practice

The content analysis of the prevalence of terminology relating to reflective practice identified four key themes : Integration and emphasis, Theoretical Underpinnings, Critical Reflection, and Praxis. These were examined across postgraduate teacher training, general university and design-specific materials to gain a holistic perspective. The findings revealed a complex and varied landscape of reflective practice within the institution, with significant disparities regarding integration, discernment and application across all identified contexts.

### 5.2.1    Integration and Emphasis

The first A priori theme , Integration and emphasis, revealed broadly that reflective practice was consistently recognised across all university contexts. However, specific terminology, incorporation and significance varied. The PgTTHE programme integrated reflective practice with the term 'critical reflection', potentially drawing on Schön's (1983) model of reflection-in-action. This alignment supported a theoretical commitment to reflective practice as an essential component of teacher training, which is crucial for embedding foundational tenets of HE pedagogy directly into L&T practice (Bai et al., 2024; Ghaye and Ghaye, 1998; Robinson, 2004). However, emphasis on theoretical knowledge might limit

engagement and application for design staff, who typically favour experiential learning methodologies (Budge, 2016b; Sims and Shreeve, 2012). Furthermore, the university-wide materials also presented a fragmented approach to reflective practice. The LTD team positioned 'reflecting' as the final stage in the Assessment Loop (Figure 30).

Situating 'reflection' as an endpoint in L&T aligns with traditional summative assessment paradigms rather than the ongoing, cyclical nature intrinsic to design practice (Orr, 2022) and a common understanding of reflective practice, such as Gibbs' (1988) reflective cycle. The LTD team guided staff to undertake reflection within annual reviews, periodic reporting and summarised evaluations (Appendix 7). This guidance was limited, suggesting a static endpoint strategy rather than a continuous, iterative reflection process throughout the year. In contrast, *Valor* embedded 'reflection' and 'reflective practice' extensively: in guidance for students and staff, using video testimonials, recommending a diverse range of models, from Schön's (1983, 1987) in-and-on-action model to developing personalised approaches, to undertaking additional training to support skills enhancement for reflection, such as doing a free online course (The Open University, 1999-2024), which collectively promote sustained engagement. Study Support used the term 'reflection' and communicated clear strategies to help student understanding through two podcasts (Appendix 8). This guidance mirrors some of *Valor*'s rigour and exceeded UTA's staff-facing guidance. However, Design exhibited most variability regarding the use of reflective practice terms. Different shortened terms and limited citations of 'reflective practice' were noted inconsistently across all Design programmes within unit learning outcomes (LOs) (Appendix 9). This suggested a broad but diluted understanding of reflective practice and diverse integration into the curricula. This variability could cause confusion, particularly for part-time tutors with varying levels of allegiance to L&T (Shreeve, 2011, van Lankveld, 2017), those employed directly from industry (Cheng, et al., 2022) or lacking teacher qualification. Improving the clarity and consistency of terminology and communication would strengthen an overall coherent rationale for reflective practice.

## 5.2.2    Theoretical Underpinnings

The second A priori theme, *Theoretical underpinnings*, revealed the PgTTHE programme, while valuing 'critical reflection,' lacked a solid foundation to effectively promote teachers' integration and advocacy of reflective practice in L&T (Appendix 10). Similarly, LTD guided staff to read Forsyth et al.'s (2015) work regarding assessment literacy. While emphasising 'reflection,' this article did not reference reflective practice in depth. Furthermore, the predominant focus on marking suggested an underlying neoliberal meritocratic bias (Whitchurch and Gordon,

**Reflect: Consider how your experiences have shaped your thinking.**

**Reflective practice** is more than simply looking back over your experiences. Instead, reflection is **critical thinking** that supports you to learn from your experiences, and is a key personal and professional skill that can have many benefits. Learning to develop your **reflective skills** as part of your **Future me plan** can help you understand your strengths and areas for development, informing your future decision making.

Figure 31.     Reflect – core to Step up (adapted from the selected university, (A Priori material).

2010), which contrasted with the personal and altruistic nature of reflective practice (Amulya, 2004; Gibbs, 1988; Schön, 1983).

In contrast, *Valor*, the optional university-wide programme, demonstrated a deep understanding of reflective practice, recommending various theories and models, including Schön (1983) and Gibbs (1988). Notably, the single-point assignment for all of *Valor's* short courses aligned with the LO1: 'Reflect upon and communicate the value of your *Valor* experience' (Appendix 11). Given the emphasis on experience in this LO, there is a connection to Kolb's (1984) Experiential Learning Cycle, although this was not explicitly stated. All university staff had access to *Valor's* guidance and assessment information, as any academic could propose and deliver a short course. However, the primary focus on students undertaking the courses may deter staff from engaging personally with these resources, excepting those who chose to teach on the programme.

Similar to *Valor's* content, although in less detail, Study Support material referenced multiple theorists, 'Gibbs, Schön, Johns, Rolfe, and Brookfield' in their podcast for students (Appendix 8, Podcast 2) but did not facilitate deep engagement due to a lack of full citations. However, the mention of multiple theorists suggested this team possessed knowledge of reflective practice, although omitting detailed references was a disadvantage. Furthermore, the Design curricula material, such as assignment briefs, omitted referencing any relevant frameworks, indicating least recognition of the significance of reflective practice across the dataset. Overall, the omission of references to reflective practice, alongside other similar theoretical discrepancies, and the common use of abbreviated terms, highlighted potential inadequacies for staff to comprehensively understand reflective practice. Subsequently, this suggested effective integration of reflective practice into L&T practices may be hindered, thereby impacting the development of student's design practice, professional practice, and becoming future reflective practitioners.

### 5.2.3   Critical Reflection

The third A priori theme was 'critical reflection', which was recognised as core to developing effective teaching practice by the PgTTHE programme. Emphasis on this fundamental concept underscored the importance of educators' capabilities to critically evaluate and improve teaching practice (Šarić and Šteh, 2017), aligning with Professional Standrads Framework (PSF) for L&T (Advance HE, 2023). However, the complexity of critical and reflective practices may present challenges for staff due to lacking interest in understanding reflective practice in professional development (Clegg et al., 2002; Hargreaves, 2004). While Moon (2005) acknowledges that students may struggle with critical thinking, this is also

a difficulty that novice tutors or industry professionals new to academic teaching may experience. This was further supported by Šarić and Šteh (2017)and Mohamed et al. (2022) reporting that tutors find critical reflection hard to grasp and teach to students.

Ultimately, across the university-wide materials, the approach to 'critical reflection' varied. LTD did not mention it, although cautioned that reflection required time, implying a need for deeper consideration, which suggested a possible gap in emphasising 'critical reflection' across the university. *Valor* linked critical reflection with reflective practice, encouraging a nuanced understanding and suggesting the terms were interchangeable. Study Support provided structured frameworks to help students grasp 'critical reflection'. However, this content was embedded in material labelled 'Reflection: Being Critical', and content focused on criticality was named 'Critical Reflection', which was more of an informal discussion (Appendix 8). Overall, these inconsistencies support the notion of confusion within the team, aligning Mohamed et al.'s (2022) findings that critical reflection is complex.

In the Design Department, inconsistencies in the approach to 'critical reflection' were also evident. Although terms for reflective practice were cited within various LOs across different study levels (Appendix 9. Design programme's LOs), the lack of theoretical foundation for reflective practice suggesting limited knowledge, may similarly reflect the understanding of criticality and, by extension, 'critical reflection'.

Overall, while Design's teaching materials referenced 'critical reflection,' indicating an important skill to learn, the probable gaps in staff's theoretical knowledge were significant. This deficiency may hinder the effective integration of 'critical reflection' within L&T, particularly in practice-based learning contexts as the dominant pedagogy in design education (Sims and Shreeve, 2012; Orr and Shreevee, 2019). This lack of understanding is concerning as an effective designer requires a critical mindset, often encapsulated in the concept of design dogmas (Hesseling, 2016; Lee-Smith, 2019) and the call to be disruptive (Nuutinen,2017; Lohiser and Puccio, 2019). Consequently, broader critical and reflective thinking about the contexts inherent within design are essential for developing richer and more responsible outcomes.

## 5.2.4   Praxis

In this final A priori theme, praxis bridges the theory-practice divide through experiential learning (Barrett, 2007), which enhances reflective practice (Venkatesh and Ma, 2021) and links to several models of reflective practice, such as Kolb's (1984) Experiential Learning Cycle. Praxis was implicit in the PgTTHE programme material through promoting experiential learning via teaching practice, which

inherently leads to the development of tacit knowledge through thinking in-and on-action, closely resonating with Schön's 'Ladder of Reflection' (1987, p.114). This approach is essential for preparing educators to apply reflective practice in diverse and dynamic classroom settings (Schön, 1983; Moon, 2013; Venkatesh and Ma, 2021).

Notably, in design education, 'design thinking' represents an intuitive, tacit process. This human-centred problem-solving approach resolves complex issues through empathy, iteration, and sampling, facilitating creativity and innovative solutions. Reflective practice is central to this methodology, as continual reassessment improves and modifies decisions for effective outcomes (Schoormann et al., 2023). Although reflective practice may not be overtly acknowledged or understood, design lecturers, as designers, should have an implicit understanding of it.

From considering praxis in design, the university-wide, *Valor* programme excelled in integrating experiential and tacit practices through the 'Step Up' ethos (Figure 31), a manifesto which promoted continuous reflection alongside 'revealing' and 'navigating' during 'experience,' aligning with design thinking and fostering tacit reflective practice (Hong and Choi, 2011; Schoormann et al., 2023).

This approach not only supports the practical application of reflective practice in professional contexts but also underscores the importance of staff having a strong understanding of reflective practice, in line with Schön's (1983) theory. While LTD and Study Support encourage reflection, primarily through endpoint moments or written methods, this approach, though valuable, may not fully align with the ongoing, iterative nature of praxis or design education's tangible, practical outcomes (QAA, 2019). This suggests that while these groups may have a good grasp of the theories and models of reflective practice, they may not fully understand the implicit reflective practice inherent in design practice.

Within the Design Department and university-wide *Valor* programme, praxis was clearly evident in the integration of experiential and tacit practices within the LOs (Appendix 9 and 11 as Design and *Valor* programme's LOs) and in the assignment briefs (Appendix 12a-12b. Links to Praxis). This alignment mirrors design thinking and design dogma approaches (Hesseling; Lee-Smith, 2019; Schoormann et al., 2023). However, the effectiveness of this integration was potentially compromised by a lack of constructive alignment (Biggs et al, 2022). For example, the *Nexus* assignment brief focused on reflection (Appendix 13), yet lacked reference in the LOs. This could lead to inconsistencies in understanding and application by both staff and students, affecting the depth and quality of engagement in reflective practice across the department. Moreover, gaps in staff understanding of 'critical reflection' and 'reflective practice' may undermine the effectiveness of these approaches to enact praxis, thus impacting on bridging the theory-practice divide (Bofylatos and Spyrou, 2017).

CREATIVE PRACTICE
'So I'm more there for, dare I say, a more kind of experimental point of view'.
—
*Carl*

'The creative process induces this, it kind of takes you into this space where you can express yourself. It's about creativity in effect [...] you know creativity, I wouldn't call it reflective practice'.
—
*Polly*

'Creative people don't necessarilyconform, to a systematised, structured, formal way of working. I mean, you know about lots of different structures that are put in place to kind of monitor and systemise things, but actually, sometimes that's kind of counterproductive to what you want to do. As creative people, you can kind of satisfy that, but do what you want anyway'.
—
Isaac

PRACTICE
'We had to be reflective about how it connected with our own practice'.
—
*Fred*

'And so if we were to look at it as a practice, and maybe try to share that practice, or explain that practice, or train someone in that practice, that's where I would use reflective practice. It's where maybe we're engaging people in the learning of the process of it'.
—
*Uma*

'When you bring in the word practice it brings in activity and doing, and associations with being a general practitioner, or being an artist'.
—
*Roz*

'So I think that reflective practice would be to do a thing. So, to create somethikng, to write something down, based on a concept or an idea that you've had, but I still think there's an element of creative practice [...] It's about understanding that creative practice or reflective practice is what it is'.
—
*Tamina*

Figure 32.      Participant extracts relating to Creative Practice and Practice.

## 5.3 Summary: A Priori Analysis and Discussion

This section summarises the A priori analysis findings, highlighting discrepancies in how reflective practice was understood and applied across the university, especially in the Design Department . It reveals gaps in the application of theoretical models and the integration of reflective practice, setting the stage for the more detailed A posteriori investigation.

The analysis revealed that while reflective practice was recognised across various contexts within the university, there were significant variations in the integration and application of theoretical underpinnings. University materials from the PgTTHE, *Valor* and study teams support varied in their offerings of structured and theory-informed approaches to reflective practice, promoting engagement with critical reflection and praxis. However,this was not consistent and academic rigour varied. *Valor* and Study Support cited Schön (1983) and Gibb's (1998) as examples of theories and models of 'reflection', suggesting a shared university-wide approach. In contrast, Design demonstrated a fragmented and sometimes superficial understanding, particularly in integrating reflective practice with experiential, practical application. These discrepancies highlighted the need for more cohesive strategies to support reflective practice, particularly within design education.

As a result of these variations, within the A posteriori data, participants from the Design and Study Support service may exhibit inconsistent or limited understandings of reflective practice. This could impact abilities to fully engage with and apply reflective practice in L&T, further underscoring the importance of addressing these gaps to ensure a comprehensive and effective approach across the department and potentially the institution.

## 5.3.1   Key findings from A Priori Analysis

For a detailed breakdown of the findings against the identified themes, refer to Appendix 14, A Priori Conclusion Summary Table. Key findings are listed below for clarity:

- **Inconsistent use and understanding of reflective practice:**
  - The term 'reflective practice' was consistently mentioned across different contexts, although the depth of understanding and application varied.
  - The PgTTHE programme and *Valor* showed stronger theoretical and practical engagement with reflective practice.

- In contrast, the Design Department exhibited more fragmented approaches, indicating a need for a more cohesive understanding and application of reflective practice.

- **Theoretical underpinning disparities:**

  - *Valor* and Study Support demonstrated robust theoretical engagement, indicating academic rigour and a preference for Schön (1983) and Gibbs (1998).

  - The Design Department lacked theoretical references and relied on abbreviated terms, suggesting a need for stronger theoretical integration to effectively support reflective practice.

- **Integration and emphasis:**

  - The university's general emphasis on 'reflect' as an endpoint (e.g., in LTD material) contrasted with the continuous, iterative nature of reflective practice that is essential in design education.

  - This misalignment may impact the effective integration of reflective practice, particularly in practice-based learning environments within the Design Department.

- **Promotion of critical reflection:**

  - 'Critical reflection' was cited across most contexts, including the PgTTHE programme, *Valor*, and some Design programme LOs, but was less emphasised in LTD materials.

  - Despite the recognition of critical reflection, challenges in fully understanding it, especially in the Design Department, suggested gaps in staff knowledge and experience.

  - These gaps could impact the application of critical reflection and the development of effective design practitioners.

- **Experiential learning and tacit practice:**

  - Experiential learning and tacit practice were promoted across the institution to support reflective practice, but their application appeared inconsistent.

  - Despite being integrated into LOs and assignments, the Design Department exhibited discrepancies with constructive alignment, potentially lacking the theoretical grounding necessary to fully bridge the theory-practice divide.

These findings underscore the need for consistent strategies to support reflective practice, especially within the Design Department. The next section explores

'It was mirrors and all sorts of, so many
animations happening con-currently
on the projectors, everything spilling
onto the back walls as well and that
that sense of just in motion and, and
actually multiple facets and viewpoints
that a coherency emerges from it'
(*Idris*).

Figure 33.    Images in Debris by Sarah Sze (2018). Image © the artist. Courtesy of
              Victoria Miro Gallery. Reproduced with permission.

              A Laundry Woman by Kimsooja, 2000. Site-specific installation consisting
              of 27 Korean bedcovers, 5 bottaris, and 6 fans, Kunstmuseum Liechtenstein,
              Vaduz. Photo by Aaron Wax. Collection of the Musée d'Art.

Figure 34.    Contemporain, Lyon, France. Courtesy of Musée d'Art Contemporain, Lyon, France and Kimsooja Studio. Reproduced with permission.

Figure 35.    House Beautiful No. 1 (2003–2005) from the series Everyday Dada by Sian Bonnell. © Sian Bonnell. Reproduced with permission.
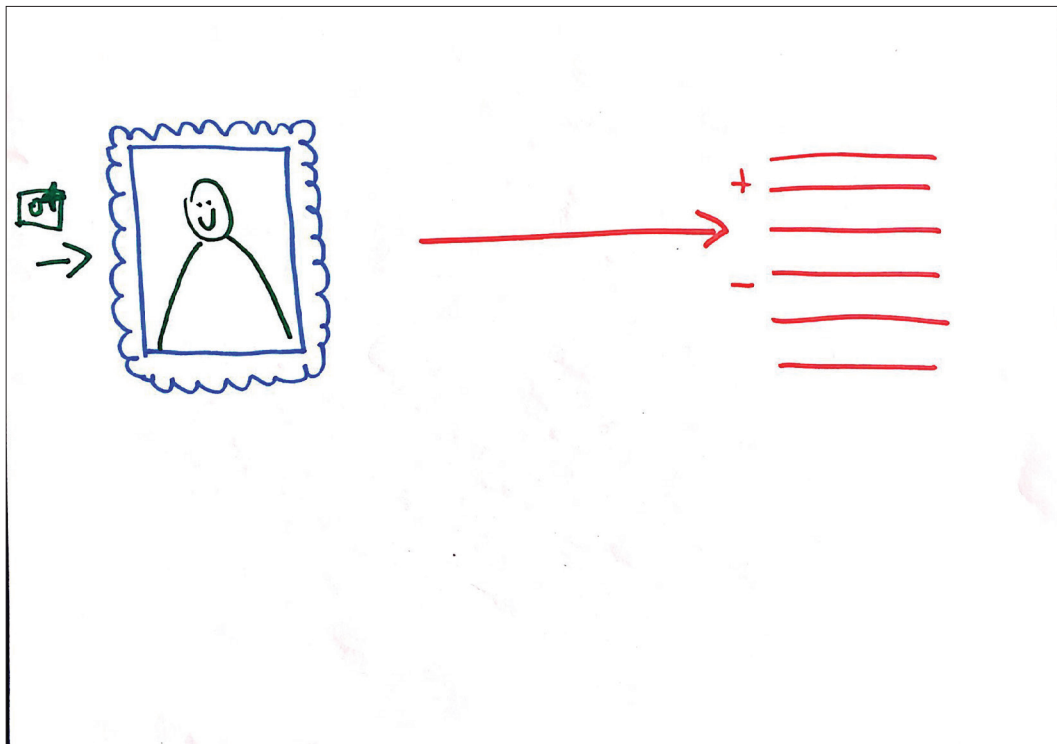
Figure 36.    Drawing by *Arthur* (Design).

Figure 37.    Drawing by *Fred* (Design).

the A posteriori analysis, offering a deeper insight into the lived experience and application of reflective practice in the department.

## 5.4 Participant Insights: A Posteriori Orientation of Reflective Practice

Following the A priori analysis of university content relating to reflective practice, this A posteriori analysis provides comprehensive insights into the reflective practice of the research participants, including outcomes from the visualisation task. For a comprehensive overview of all visualisation task outcomes refer to Appendix 15. These drawings are organised according to the sequence of interviews, commencing with Design, Contextual Studies and Study Support staff. Throughout this analysis, the drawings are displayed individually, in pairs, and in small groupings to illustrate specific connections between design practice, reflective practice, and tacit knowledge. For details regarding the alignment of these drawings across the analysis of the A posteriori themes, refer to Appendix 16.

The A priori analysis established a crucial foundation for contextualising this A posteriori phase, deepening the understanding of participants' insights within an academic framework. Thematic analysis was employed to process interview material, using Braun and Clarke's (2022) six-stepped process (Appendix 17. Summary of Thematic Analysis). This method involved familiarisation with the data, generating initial codes, and identifying, reviewing, refining, and naming key themes. Codes were systematically developed, organising the data into 'small chunks of meaning' (Maguire and Delahunt, 2017, p.3355). These codes were grouped into potential themes and iteratively refined into five themes: Creative Practice, Academic Practice, Practising Practice, Demonstrating Practice, and Expanded Practice. This emphasis on practice reflects the inherent integration of reflective practice within varied practices in HE design education.

Participants' lived experiences of reflective practice within the Design Department are explored in depth to answer the research questions. While the sample predominantly consists of design academic staff, contributions from Contextual Studies (CS) and Study Support staff are proportionate to their representation in the sample (Section 4.4), thus ensuring an equitable perspective across the Design Department (Appendix 18).

The participants' drawings complement the participants' verbal accounts by extending the phenomenological insights gained from voiced experiences relating to reflective practice. This offers ethno-case study insights (Parker-Jenkins, 2018), from teaching and supporting design education within a specific department.

REJECTION AND SCEPTICISM

'It just adds another lot of admin for something that you do naturally. [...] maybe there's a way of capturing it it it's important to capture reflection [...] maybe there is some general statements [about reflective practice]. There probably is [...] and actually, I'm not interested'.
—
Isaac

'I was like, that is, how can anyone? [...] it's useful to look at that and go, 'Oh, yeah, that is what you do', but I could never take that model and bring it into teaching'.
—
Greta

'Sorry to throw theory at you but the ones that I can remember are the cyclical model of Kolb [...] and I've done about Dewey when I talk about career guidance because it's that same process of thinking what you've done, whether you like it, whether you want to change your job'.
—
*Sara*

'Even if somebody is reflective in their own way, that conformity of having to do it and fit into this way of being reflective and maybe being assessed on that, creates a barrier for certain people. And so maybe we'll always reject it as an idea or as a thing to go through'.
—
*Uma*

ACCEPTANCE
'So reflective practices [...] is about sort of not simply teaching students sets of knowledge which they need to gain qualifications, but actually teaching students knowledge in a way that allows them to kind of develop both intellectually, politically, morally, in a way that can often be quite disruptive to the smooth and efficient rally of a large education institution'.
—
*Steven*

'It's an odd one, I did it because it was what it was; something I was supposed to do when I joined. And did I enjoy it? No not one bit'.
—
*Idris*

'We use three of the reflective models, which I think are Kolb, Gibbs and there's another one [...] the other one, was Boud and Kolb' and 'I think there is a sort of university excpected, 'this is what we mean by reflective practice', and I think a lot of the grade descruptors and things that we're looking for kinda play into some keywords with the three that we usually talk about'.
—
*Sandra*

'I'd already taught in higher education for seven or eight years when I got my permanent post that required me to have a formal qualification [...] and I was very reluctant to do another course at that time'.
—
*Cara*

Figure 38.      Participant extracts relating to Rejection and Scepticism Versus Acceptance.
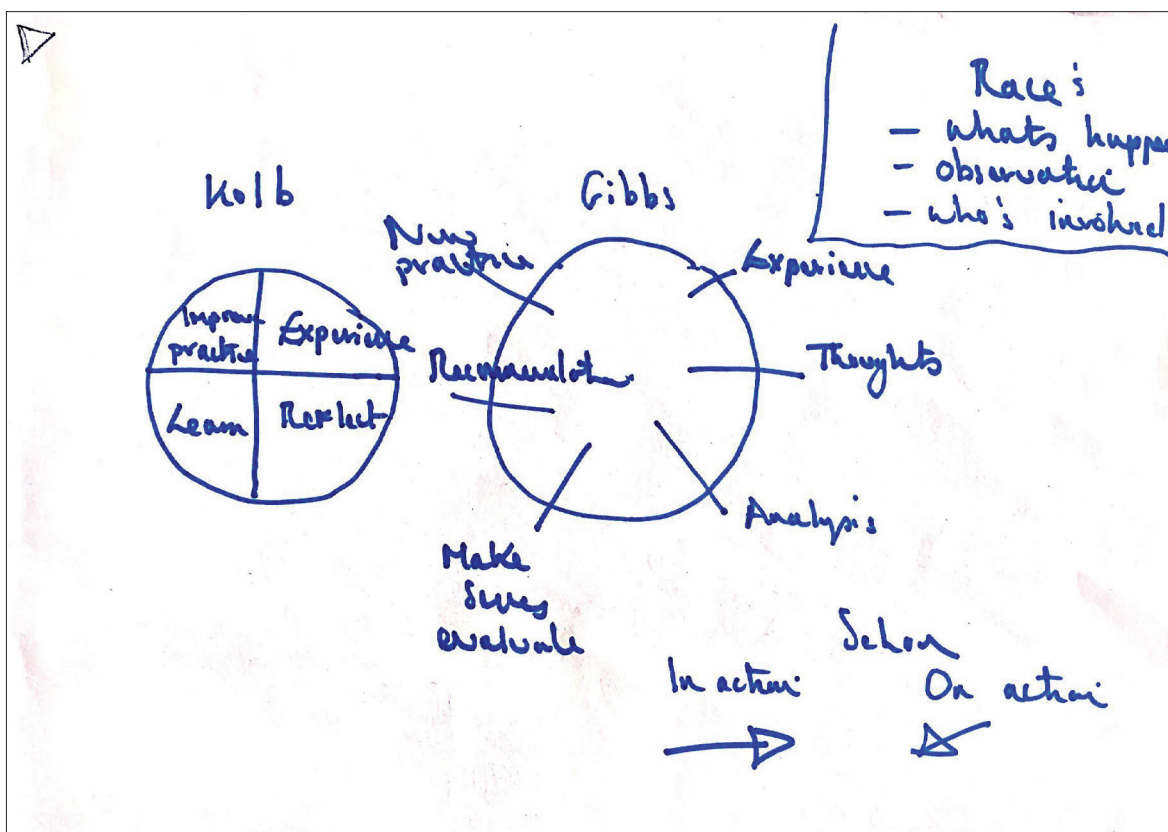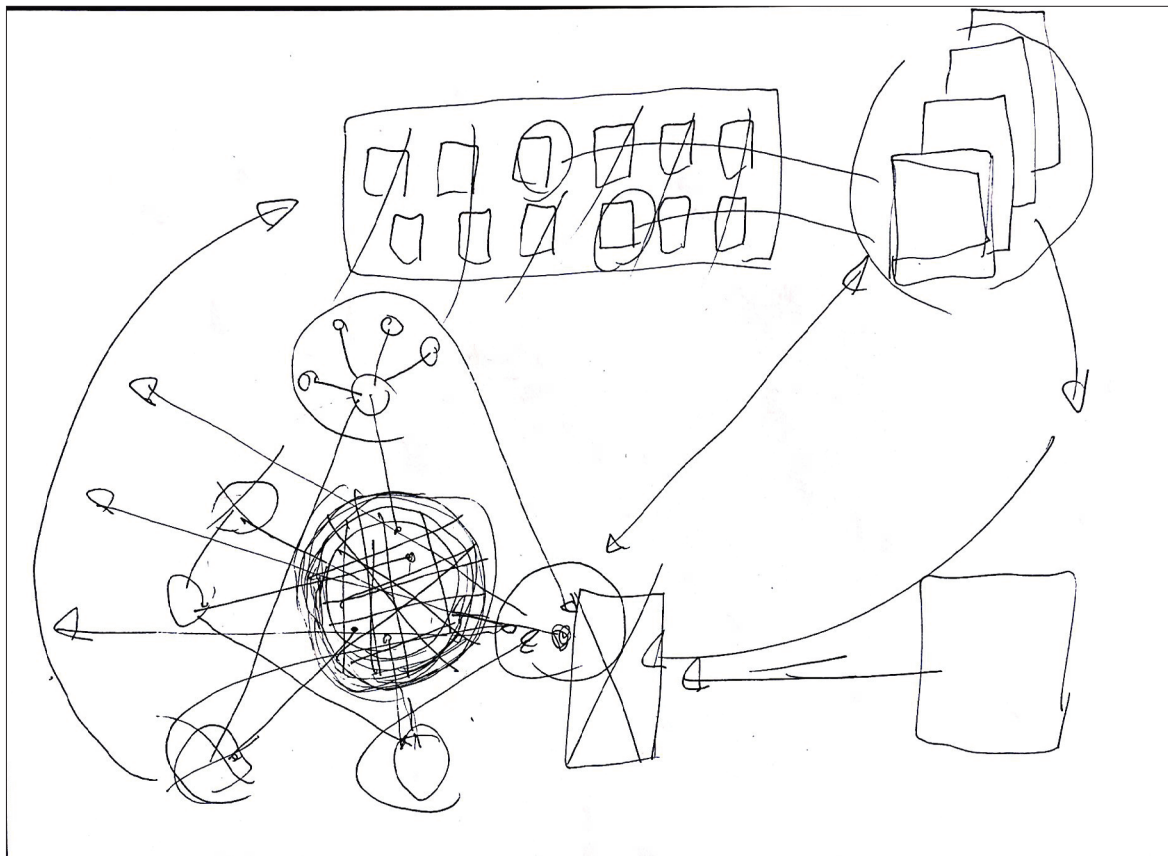
Figure 39.    Drawing by *Idris* (Design).

Figure 40.    Drawing 01 by *Sara* (Study Support).

DISTINCTIONS

'In my head reflection is something that goes on constantly, all the time in my work but reflective practice implies to me a formal, formalisation of it'.
—
*Uma*

'... Reflection is a kind of tacit, less conscious process err That's, that's, that's where conclusions are not explicitly drawn, and sort of applied. That's just the kind of, yeah, a little more passive. I think reflective practice implies a degree of kind of conscious decision to go through a process'.
—
*Steven*

'Reflective practice, again, is the formalisation of it. And I think that's much more specific. I think people who know what that means, will now what that means. But yeah, for everybody, reflection is much more common in use'.
—
*Ida*

'Reflective practice is in action, I think, I think reflection doesn't have to be, you can reflect without being in action; they are two different things'.
—
*Idris*

'Reflection, can be reflected in a mirror, reflection; reflection, well, when you bring in the word practice it brings in activity and doing, and associations with being a general practitioner, or being an artists, so I can lie on a beach and reflect but I'm not doing reflective practice'.
—
*Roz*

'Reflective practice is putting into action, the things you are thinking about. So that's when it becomes practice'.
—
*Charlie*

'I think the fact that it is associated with practice means that something active happens as a consequence of it'.
—
*Polly*

'Reflection is the thing that can happen internally, and it can be a sort of short-live action, whereas reflective practice implies to me that it's an ongoing kind of method of working that involves kind of making and thinking in parallel'.
—
Isaac

'Reflection is what we do naturally, and reflective practice is the consciousness during process of reflection, with a view to improving something'.
—
*Cara*

Figure 41.    Participant extracts relating to Distinctions between the terms used for reflective practice.

These visualisations are displayed variously: individually, paired and grouped. This reinforces the analysis of the voiced experiences of reflective practice and reveals tacit knowledge that often remains implicit (Polanyi, 1967), articulating a particular perspective on reflective practice.

In this analysis, the findings and discussion are integrated, with relevant transcript extracts presented as figure references and key quotes included in-text to enhance the discussion. The outcomes from the visualisation task are numbered sequentially as drawings. A priori findings are cross-referenced to synthesise the analysis. Pseudonyms are used to protect participant anonymity, and specific design subject associations are also anonymised. As outlined in the Methodology, participants were sourced from three key programme categories within the department: Design (e.g., fashion design, graphic design), Contextual Studies) (CS) (theoretical and historical underpinnings of design), and Study Support (skills enhancement). For further participant demographic details, refer to Appendix 19. These categories are noted to highlight differences in reflective practice across these domains. Participant pseudonyms and the specific units are italicised (e.g., *Alma, Valor*) to distinguish them from other references.

## 5.5    Creative Practice

Within this first theme, both creativity and practice were relevant to reflective practice.

### 5.5.1    Creativity

Creativity was fundamental to L&T in design education and inherently linked to reflective practice. Figure 32 collates participant comments from a diverse group of educators, a novice GTA (*Tamina*) to a professor (*Polly*) demonstrating an understanding of the importance of creativity across different experience levels.

The importance of creativity in learning and making approaches was emphasised. *Carl* and *Isaac* highlighted the connections between creativity, experimentation, non-conformity, and independence. Notably, *Tamina* equated creative practice with reflective practice, suggesting an inherent link between understanding creative endeavours and engaging in reflective processes. This interchangeability aligned with Hesseling's (2016) design dogmas that draw on tacit knowledge (Schön, 1983; Venkatesh and Ma, 2021) and cultivates a form of connoisseurship, an intuitive, yet often concealed, understanding of creative production (Neidderer, 2007).

Further examples of divergence in understanding were the sources of reflective

practice that participants had identified as recommending to students during the interview. Notably, a majority of these sources were creative outliers that challenged conventional norms of reflective practice (Appendix 20). Examples included fine art, textile and photography practitioners, Sze (Victoria Miro, 2018), Kimsooja (Brilliant Ideas, 2017), and Bonnell (Foster, 2020) (Figures 33-35). *Idris* described Sze's work (Figure 33) as embodying holistic, dynamic, and emergent creativity, echoed by the gallery representing her work highlighting this as an exploration of 'precarious ecologies where material conveys meaning and a sense of loss' (Victoria Miro, 2024, para.1-2). Similarly, *Carl* characterised Kimsooja's practice as a dynamic interplay between creator and audience, demanding reflective engagement, a sentiment also supported by her representing gallery's description of 'Bottari' (Figure 34) as 'a comprehensive totality [...] a memory of the body relating to the past, present, and future.' Additionally, *Isaac* endorsed Bonnell's anti-professionalism stance, preferencing the absurd, and advocating for Wilful Amateurism, a field in which they were recognised as a Reader (Foster, 2020, online) (Figure 35).

Collectively, these distinct sources, which were suggested to support understanding reflective practice in Design, referred to dynamic, multi-faceted, holistic, and original approaches, suggesting cyclical and iterative processes were central to reflective thinking in the department. While these sources did not initially appear allied with reflective practice, deeper scrutiny revealed affiliation with several established theories that combined reflective and learning theories. These included Gibbs' (1998) reflective cycle, Brookfield's (1995) lenses, Kolb's (1984) Experiential Learning Cycle, Mezirow's (1991) transformative learning theory, and Schön's (1983, 1987) reflection in-and-on-action. The combining of reflective practice and learning theories highlights further complexity and nuances between these domains, and possible mis-understandig by participants, which this analysis seeks to understand.

Notably, Bonnell's concept of Wilful Amateurism resonates with Schön's (1983) notion of professionalism as artistry, whereby embracing ambiguity and creative divergence is essential to reflective practice. As a Reader, Bonnell's approach links research to real-world dissemination and audience engagement, themes also reflected in Design's LOs and Assignment brief content (A priori analysis, Section 5.2), which reflect a potentially tacit epistemology of reflective practice (Kinsella, 2009). This further resonated with Vygotsky's principle, (Peck et al cited by Kinsella, 2009) a lesser-known epistemology of reflection (Finlayson, 2015), particularly the strategy of transferring learning to public contexts, where engagement with external factors is a key phase, named appropriation. Consequently, this term and the anti-professionalism approach illuminated the importance of critical and ethical dimensions in creative and reflective practices. Bill (2017) endorsed this approach in HE research contexts, arguing for the use of creativity to counteract the constraints on funding within universities globally. Thus recognising that the integration of

reflective practice with design's creative pedagogies could be a powerful tool for L&T, research, and professional development in HE and appeared central to the emergent understanding of reflective practice in the department.

## 5.5.2    Practice

In addition to creativity, 'practice' was crucial within the findings, emphasised by inclusion in all A posteriori themes. 'Practice' appeared ubiquitous, bridging creative practice and reflective practices, evoking notions of active engagement, skill development, and continuous learning. Similarly, reflective practice served as a valuable tool for sharing, explaining, and training others, embracing Bowers et al. (2022) recommendations of reflective practice supporting faculty development, although if not explicitly acknowledged, it may be redundant.

This interconnectedness between practice and reflection was evident across the participants' conceptualisations. The synonymity between reflective practice and creativity was illustrated differently by the participants but represented a shared conceptualisation. For example, a simple depiction by *Arthur* (Figure 36), locates the practitioner centrally in the frame, emphasising individuality as key to their practice. Similarly, *Fred*'s drawing (Figure 37), a complex cycle of interwoven design processes, was captured in a continuous cycle of reflection, underscores the dynamic interaction between reflection and creativity, aligning with design thinking and therefore reflective practice (Schoormann, et al., 2023), and Barad's (2007) notion of diffraction, which emphasises how differences and intersections generate new patterns and insight, and could accord with Design's interpretation of reflective practice.

As stated earlier, Schoormann et al. (2023) argued that reflective and creative practices are inherently linked in design practice. However, this alignment departs from the traditional focus of reflective practice on self-improvement and professional development (Brookfield, 1995; Schön, 1983; Moon, 2005). This customary presentation can appear off-putting,

> '...you know about lots of different structures that are put in place to kind of monitor and systemise things, but actually, sometimes that's kind of counterproductive to what you want to do. As creative people, you can kind of satisfy that but do what you want anyway' (*Isaac*).

This suggests that while reflective practice may be understood, it was not

'Working with subjects such as professionals in law, psychology, teaching, nursing, they're much more open and able to articulate what their practice is, because it's sort of in this framework of, 'there's professional standards and expectation', but when we're working with art and design students, that's not always the case, they've not really figured out what the framework is for them to reflect on, because it isn't prescribed, its self-prescribed. So they end up in a bit of a, down a rabbit hole with it'.
—
*Sandra*

'The real purpose of them [internal student surveys] just becomes box ticking, so it's that balance between box ticking exercises, and genuinely sitting down and finding the feedback'.
—
*Cara*

'When I did my PGCE, I think it got me into some good habits of sort of reflecting upon things that I had done'.
—
*Flo*

'I keep thinking about marking, and how that allows students to reflect on things and how staff then reflect on how, you reflect on how you've taught people and different teaching methods'.
—
*Greta*

'They find reassurance in the structure of the learning outcomes. [...] So when they reflect on their work against that, again, it gives having that give them a structure to reflect as well. It's really, really important'.
—
*Ida*

'What, what I do think it should be [...] where you learn the techniques and you leaern the processes of teaching and educating people that allows you to think about some solid things that are in guidelines and also develop your own practice around that, and I, I've worked with a lot of people who have never had anything like that'.
—
*Uma*

'Things like the peer review, the peer support things; I can understand how they could be good, but we do it anyway, you know in Nexus [...] so that's something that we could get rid of [laughs]'.
—
Isaac

'I think the PDR could be, could be an opportunity [for reflective practice] [...] what I've done well this year; there could be some reflection in there. So that could, as part of the system, could be, often it feels much more like, again, a tick box, lets just get through it'.
—
*Chloe*

'I have no interest in this tick boxing exercise, like I saw recently at the conference. Yeah, [...] and it was like a covr sheet like this tick, tick, tick, tick, tick, tick, answer the question, have you got all of these things in it? [...] I'm so sick of teaching things in a tick box exercise when what's the point?'.
—
*Uma*

Figure 42.    Participant extracts relating to It's a Fine Line Between Structure and Box-ticking

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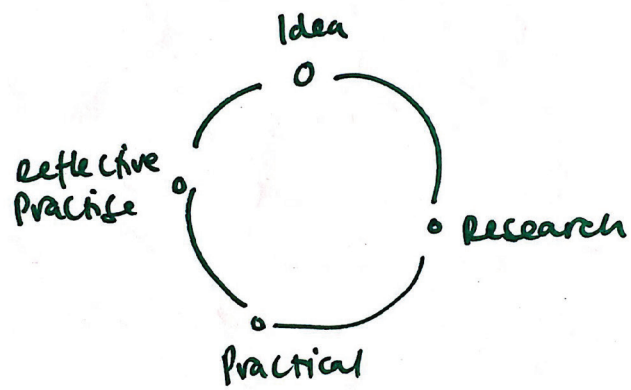
Figure 43.     Drawing by *Alma* (Design).

'Ultimately, what we're trying to do as an institution when we are working with students, developing a reflective practice, is we are trying to teach them a systematic approach to doing something that I don't think is systematic'.

—

*Uma*

'The idea of walking backwards into the future. So everything that you kind of see. So people often think about the future as being in front of them. But actually, it's thing that you haven't see yet. So if you walk backwards into the future, you're kind of seeing the present, and the future kind of materialises around you, as you walk backwards'.

—

Isaac, Figure 45.

'It is the idea of cyclical that does help because then you go back to the bgeinning to try it again; [...] I would somehow want these to join back in because, because, because, just because you get to here, it doesn't mean you next go to here because I need to go back. So the arrow, these would all be arrows going back and forth. Sometimes you need to go back to go forward again'.

—

*Sara*

'It's, it's a spiral, it's a spiral [...] it was all about the corruption you can do through having the tools [...] and if you could sit in the wrong order, you can kind of, accidental things can happen through the process'.

—

*Thea*, Figure 46.

'It's just that persistently 'turning the stone over' [reference to Dewey's 1933 quote], I just want to move on. I just want to learn from it'.

—

*Chloe*

'I guess maybe it's laziness or complacency, I just kind of do it in my head'.

—

*Flo*

'If the problem is a circle, you know; I would dissect that circle in as many ways as I could [...] So I'd pull it apart, into its components and what I'd be doing then is looking for linkages [...] and it's rereading the problem, going back to the problem but I'm going away from it, probably tangentially as far as I can for quite a long time'.

—

*Idris*, Figure 39.

'Our PDRs used to last probably a couple of hours, and it was really, just a huge open discussion about everything; it wasn't about, it wasn't a PDR as such. It was, it was a one a year life affirming discussion'.

—

*Charlie*

Figure 44.        Participant extracts relating to Arbitrary approaches – different ways to do it.
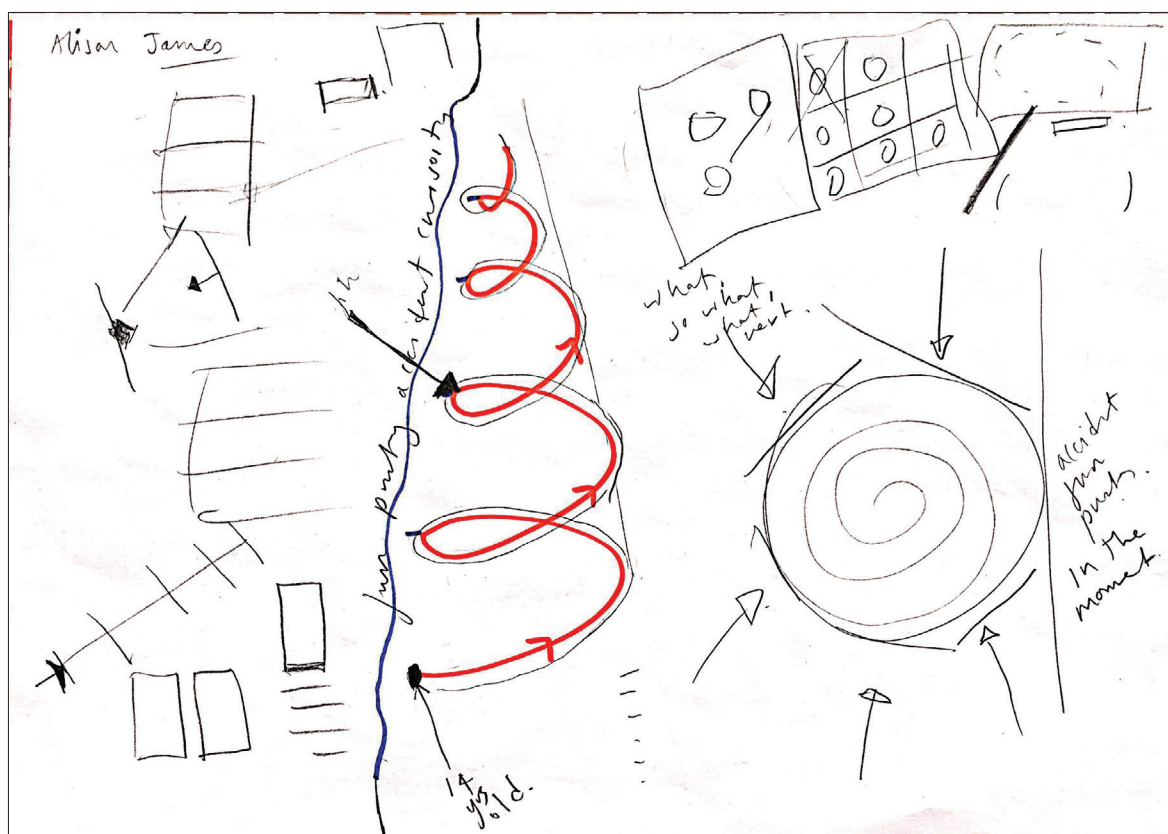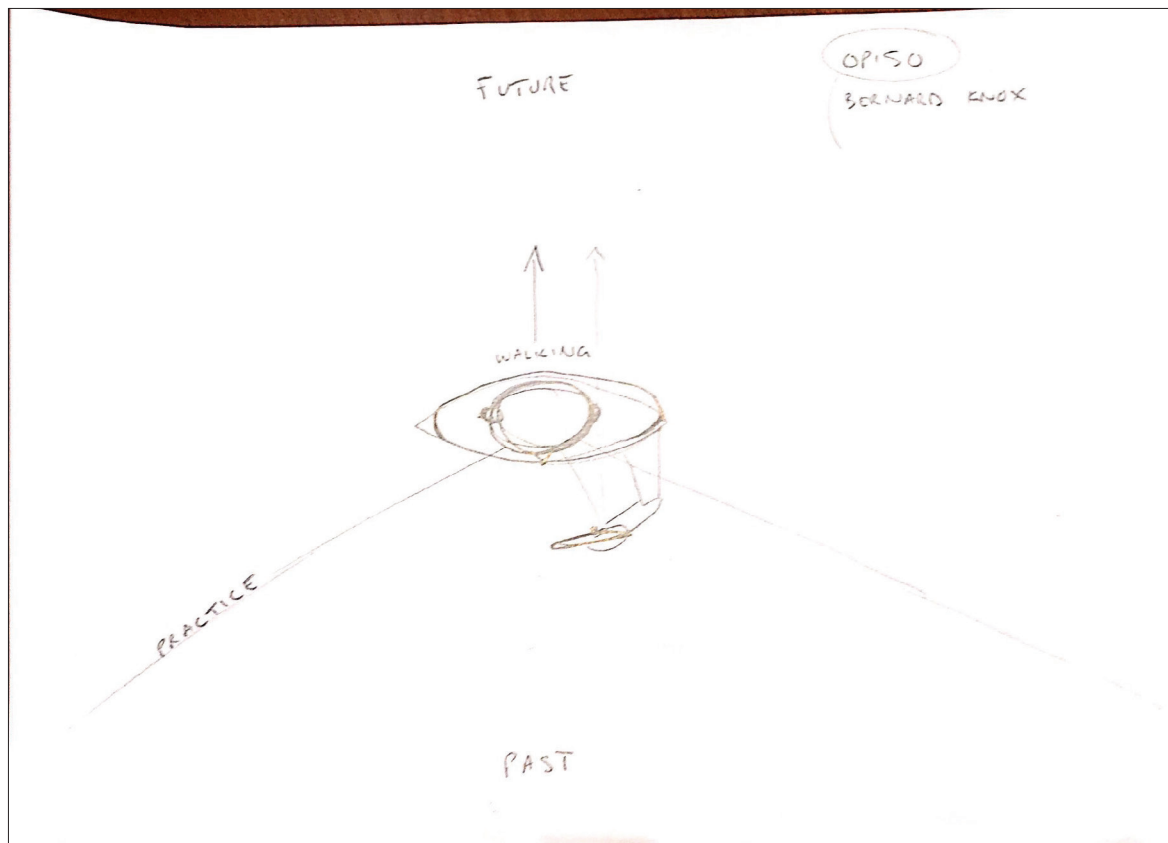
Figure 45. Drawing by *Isaac* (Design), 'walking backwards into the future'.

Figure 46. Drawing by *Thea* (Design).

necessarily uniformly adopted across the department. Having acknowledged the duality of creative and reflective practices, the next theme explores academic practice, which was central to the ethno-case study design and equally dominated the participants' conceptualisations of reflective practice.

## 5.6 Academic Practice

This theme was significant in acknowledgement of the primary relevance of academic practice within the research context, and in accentuating the complexity of reflective practice across academia in general and within design education. It considers personal perceptions of reflective practice in L&T and research, including teaching undergraduates critical and contextual practices alongside reflective practice and design practice within the parameters of physical and conceptual time and space constraints.

### 5.6.1 Rejection and Scepticism Versus Acceptance

While Braun and Clarke (2022) advise that considering more than one topic is not always advantageous in qualitative analysis, the combination of rejection and scepticism with acceptance illustrates the different understandings of reflective practice across disciplines within Design (Figure 38).

Four participants from Design and one from CS expressed opposition to reflective practice, demonstrating a lack of interest, rejecting its use, and viewing it as a barrier to effective teaching. These negative opinions potentially represented a widespread view, spanning staff from different Design programmes, CS, and *Valor*. Given the dominant pedagogy in CS was theoretical and critical, it was not solely 'creatives' that were potentially against having a teacher identity, suggesting a broader interpretation than Shreeve (2011, 2009) and van Lankveld et al. (2017) requiring further investigation within this context. However, the three Study Support participants contrasted this disapproval for reflective practice by evoking clarity of insight, citing its breadth of application, linkages with professional practice, association with models of reflection, and alignment with university expectations and grade descriptors. These aspects mirrored the findings in the A priori analysis that suggested staff from Study Support would understand reflective practice. By rejecting teacher training, *Cara* potentially dismissed the value of reflective practice to support teaching practice development, which implied an unwillingness to understand the benefits of supporting students' development in CS, design and reflective practice skills.

Participants' drawings further conveyed diversity of viewpoints for reflective practice. *Idris'* depiction (Figure 39) showed a particular interpretation of reflective practice as a designer, whereas *Sara*'s, from Study Support (Figure 40), reflected greater conformity to established models and theories of reflective practice. While a designer may have confidence and possible bias to depict creative interpretations over common models, the differences in the drawings support the disciplinary biases suggested above. In addition to 'reflective practice' being perceived diversely, a further difference arose in response to the prevalent use of shortened terms, which was established as the university-wide method of phrasing reflective practice in the findings of the A priori analysis. The predominant use of 'reflection' for example, opposed many of the participants' views, illustrated in multiple comments that clarified distinctions between the two terms (Figure 41). 'Reflection' was perceived as a passive, internal and informal process, while 'reflective practice' was considered an active, conscious, formal, and outcome-oriented practice that integrated thinking with doing.

The relationship of the extracts to Schön's (1983) theory of reflective practice is evident. The participants' differentiation between reflection and reflective practice aligns with Schön's (1983, 1987) reflection-in-on-action model, emphasising the importance of these activities being conscious and formalised, providing an integration of thinking and doing to enhance professional competence and effectiveness.

Altogether, these disparities underscored a need for clearer communication and alignment between institutional terminology and educators' understanding, potentially linked to disciplinary specificity.

## 5.6.2   It's a Fine Line Between Structure and Box-ticking

Beyond identifying differing opinions on reflective practice, there were variations in how departmental structures that support 'reflection' were accepted. This suggested the Design Department should adopt a specific approach to avoid rigid structures that may lead to box-ticking, aligning with Hesseling (2016) and Lee-Smith's (2019) design dogma approach. This perspective also aligned with *Valor*'s endorsement of students creating personalised models (A priori analysis, Section 5.2) and mirrored further A priori findings that the university's emphasis on endpoint reflection was viewed sceptically by Design staff favouring continuous practice-based reflection. This aligns with Hong and Choi's (2011) definition of reflective practice in design engineering. However, *Valor* and Study Support contrasted this perspective by
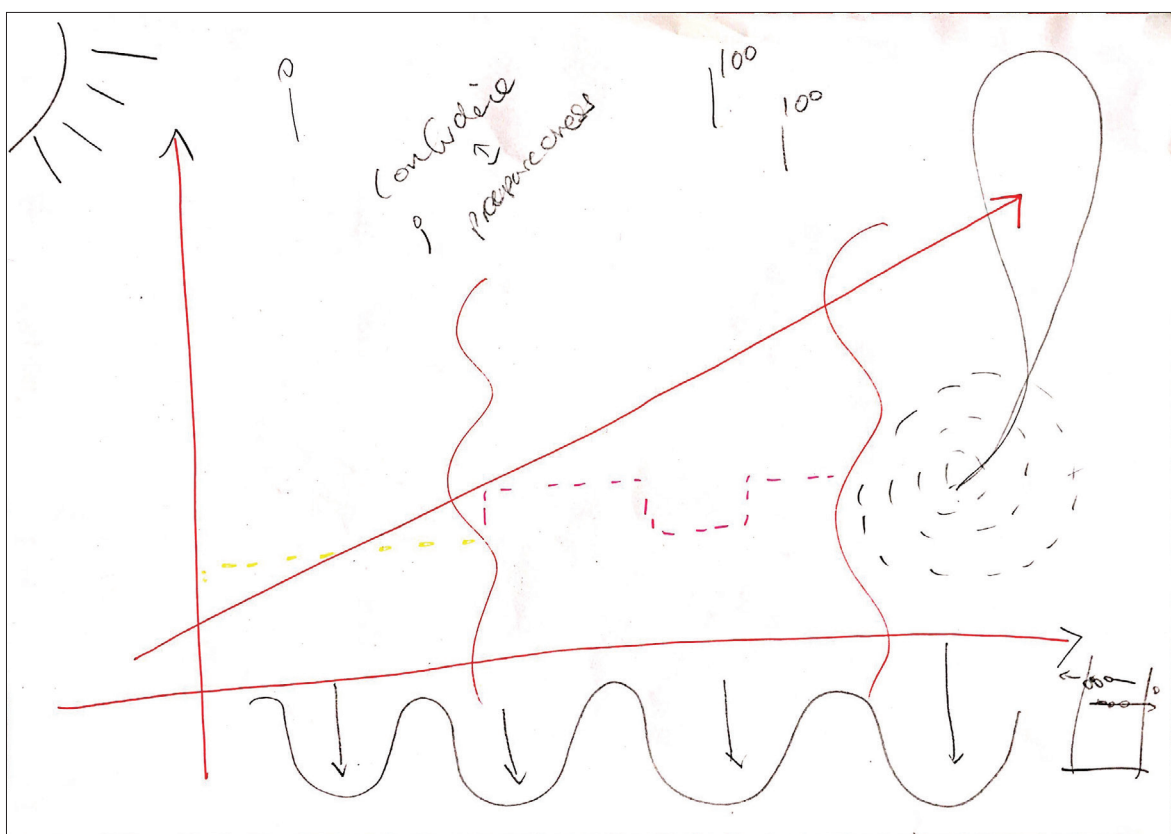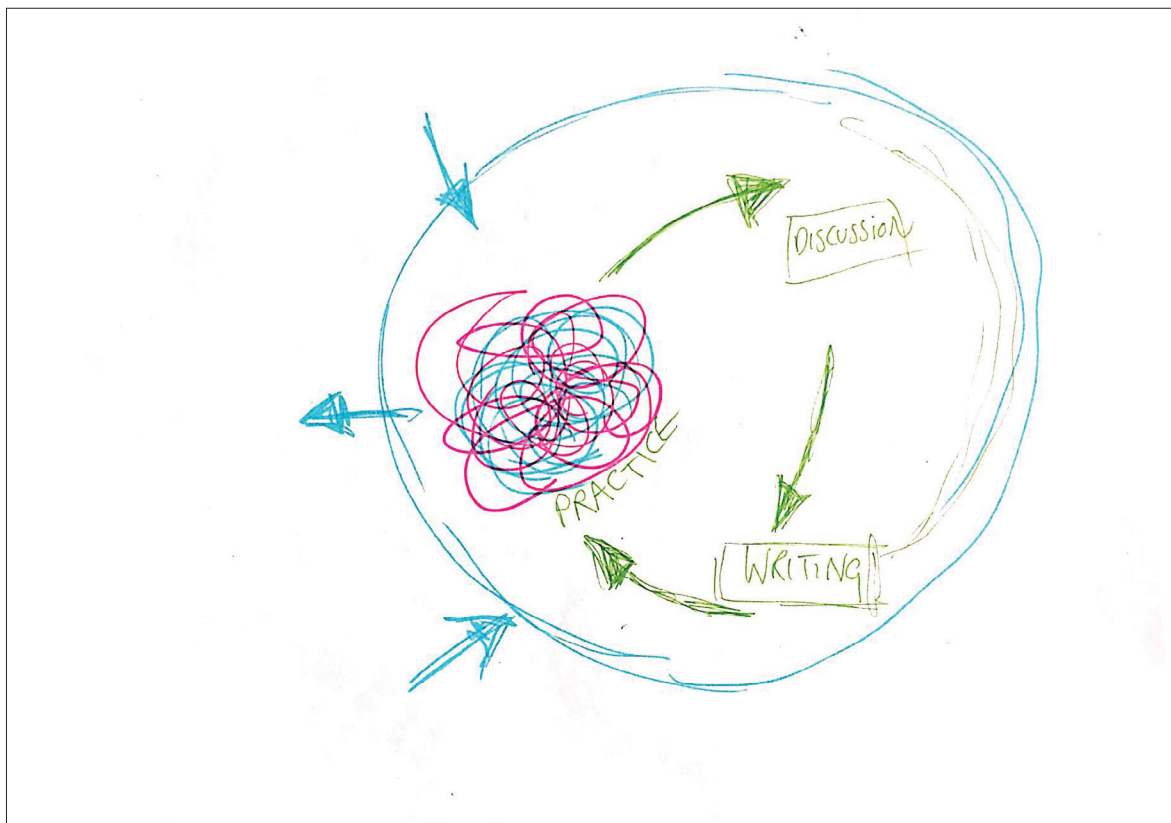
Figure 47.     Drawing by *Connie* (CS).
Figure 48.     Drawing by *Sandra* (Study Support).

endorsing theories and models that offered more structured approaches; thus potentially aligning with more mainstream, binary interactions. Compared against each other, these sentiments highlight the differences between the Design Department and other disciplines.

Participants' multiple and nuanced relationships between structure and box-ticking within university systems support reflective practice including LOs, assessments, mid-term internal student surveys, staff peer review opportunities, Professional Development Review (PDR) processes, and teacher-training qualification (Figure 42). Participants' identification of these systems acknowledged awareness of formal processes that related to reflective practice, although this did not necessarily mean they were accepted or integrated in L&T, which resonates with design dogma and daring to be different (Lee-Smith, 2019; Lohiser and Puccino, 2019).

It was also noted that while professionals in disciplines like law and nursing benefit from predefined frameworks, *Sandra* (Study Support) noted differences in A&D. This supported *Valor's* advocacy for developing personal models of reflection for students and highlighted the value of study support in supplementing L&T. Several Design staff identified structural elements like LOs provided reflective guidance for students (*Ida*), offering useful insights for staff assessing student work (*Greta*). However, there was a risk of these devolving into superficial conformity that can undermine genuine reflection (*Uma*).

Other diverse opinions were voiced among Design staff. Agreement for reflective practice was voiced by *Uma*, who taught within *Valor* but used to teach design: 'I'm so sick of teaching things as a tick-box exercise when what's the point?' *Isaac* (Design) suggested eliminating formal peer review processes due to effective informal peer-reviews occurring within collaborative teaching of the cross-disciplinary *Nexus* unit. This dismissal also potentially corroborates an inconsistency in the A priori analysis finding that while *Nexus* showed good practice in embedding reflective practice, the lack of theoretical foundations indicated a potential for surface-level insight.

Furthermore, these dismissals contrasted with support for reflective practice. *Greta* (Design) showed agreement for LTD's endpoint reflection.

> 'I keep thinking about marking, and how that allows students to reflect on things and how staff then reflect on how you've taught people and different teaching methods.'

Additionally, *Flo* (senior lecturer, Design), noted that teacher training was good practice for embedding reflection. This also supported the A priori finding that

'It's like the basis of our practice in general is […], it kind of flows through the research, we have the practical side of it, so that might be gaining interview material, or doing like some practical work, and then that kind of leads to our reflective practice where we draw all these concepts and research together'.
—
*Alma*

'So, in terms of reflective practice, I might research something; I might do something then I might reflect, and I might redo, then research a bit more, then I'd do a bit more'.
—
*Ann*, Figure 76

'I was making in different ways, and I was probably thinking, which is one of the first things I've done where I've thought more about the research process than the making process […] And that's part of being here, where you are invited to think differently about what you are doing'.
—
*Charlie*

'In terms of the actual content of what I research, reflection, is, I guess it is, I guess it is important. […] you, you have your research and your evidence, or you have your kind of, the literature that's out there and that research, and then I think it's about that kind of thinking about the link, analysing it to make the links in then moving forward with it; and then where do you go next?'.
—
*Flo*

'So, I mean, I got into teaching to, to reinforce my practice, because I thought that I was doing too many commercial jobs without enough thinking […] But my practice has changed now because of the research. So you kind of try to fit your practice into what's research. And that's been really useful over the years in terms of just kind of working out thinking and, and refining kind of being an academic, but then also producing new types of work that I did, never thought I'd produce [laughing]'.
—
Isaac

'I've still not got my head into it. I mean, I'm, I'm better than I was when I started but I'm still getting my head around framing my own practice as research'.
—
*Greta*

Figure 49.      Participant extracts relating to Reflective Practice in Research.
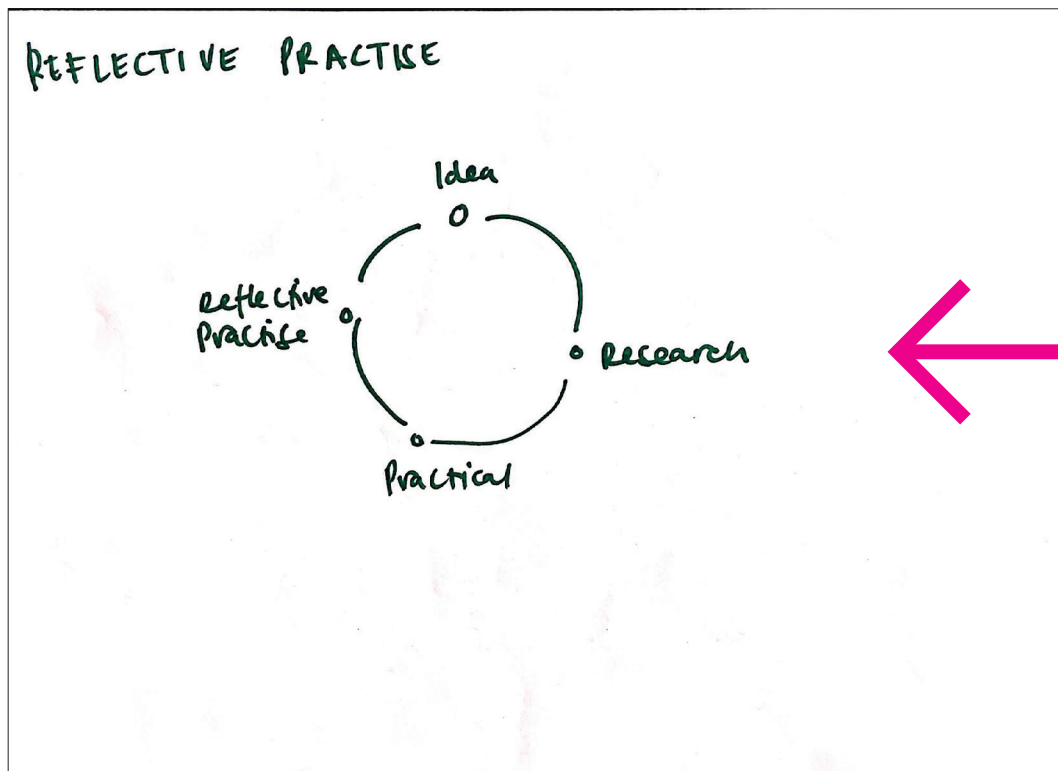
Figure 37.      Drawing by *Fred* (Design).

Figure 43.      Drawing by *Alma* (Design).

less experienced tutors had reduced insight into reflective practice, as verified by the GTAs. *Tamina* reported commonly recommended artistic sources and 'didn't think about broader references for students,' and *Alma* rejected reflective practice saying, 'nah, no, I think it almost feels like you're writing an essay.' However, *Alma*'s formulaic model of reflection (Figure 43) suggested otherwise, showing a propensity for accepting regulatory processes as a novice, which corresponded with the earlier discussion regarding *Sara*'s drawing opposing *Idris*' (Section 5.6.1), revealing the different signature pedagogies across design education and support (Chick et al, 2012). Together these also support the notion that more established tutors likely have increased confidence in using less traditional approaches to reflective practice.

Collectively, these contrasting insights highlight the diversity of approaches to reflective practice within different academic roles, contexts and design disciplines, suggesting a consensus of understanding may not be achievable in the Design Department.

### 5.6.3   Shared Approaches Through Dynamism

From identifying that structural formats of reflective practice were not necessarily accepted in Design, varied methods of 'dynamic' reflection (Finlayson, 2015, p.729) emerged across the sample from most Design programmes, the CS unit, and Study Support, suggesting a potential consensus. This also mirrors the initial conceptualisations of reflective practice, identified by participants in the first theme, that design practice was a dynamic process and inherent to creative practice. For example, participants extracts in Figure 44 highlight consistent insights that reflective practice was an energetic, nonlinear process, akin to a spiral that emphasises revisiting and reinterpreting experiences to uncover new insights, resonating with Barad (2007) and Haraway's (2007) theory of diffraction. The PDR format was both structured and an open, life-affirming dialogue. Additionally, metaphors such as 'walking backwards into the future' (*Isaac*) collectively illustrated creative, fluid, and experiential approaches to reflective practice, which also support praxis (A priori analysis, Section 5.2) and subsequently facilitate reflective practice (Schön, 1983; Venkatesh and Ma, 2021).

Isaac's drawing (Figure 45) correlates with his acknowledgment that reflective practice is backwards and forwards. At the start of the interview, he perceived it to be firmly backwards, showing a tacit awareness of reflection-on-action (Schön, 1983). However, at the interview end, he changed this perception by adding a mirror to the drawing and noted that reflection supports you to be aware and future-thinking. A unity for dynamic reflective practice was similarly depicted in many participants' drawings (Figures 46-48). These drawings show dynamism through expressive

'So reflective practices are part of kind of critical pedagogy that is about sort of not simply teaching students sets of knowledge, which they need to gain qualifications, but actually teaching students knowledge in a way that allows them to kind of develop both intellectually, politically, morally'.
—
*Steven*

'Essentially, I think criticality is a really important issue for all our students. And yeah, I think thinking of it as a reflection, I don't know [...] But yeah, I think critical thinking and critical reading and critical writing is far more important than people give it credit for. Whether that's more important than reflection, I don't know'.
—
*Cara*

'Critical thinking, that is the thinking is involved in, it's, it's critical. And I see that probably is how I look at reflection is that I'm analysing um, and critical doesn't always have to be negative. So maybe that that word can be picked up by students in a negative way. I don't take it as negative; I know what that means'.
—
*Chloe*

'If you thought to talk about critical thinking in a politics department [slight laugh] or in philosophy, it implies maybe something slightly different than it does in the art school or at least the kind of [...] I think, even when we do critical thinking [...], we try to give, I [...] whereas, critical thinking for a philospher would be very academic and divorced from the subject'.
—
*Connie*

Figure 50.     Participant extracts relating to Connections Between Critical Thinking and Reflective Practice.
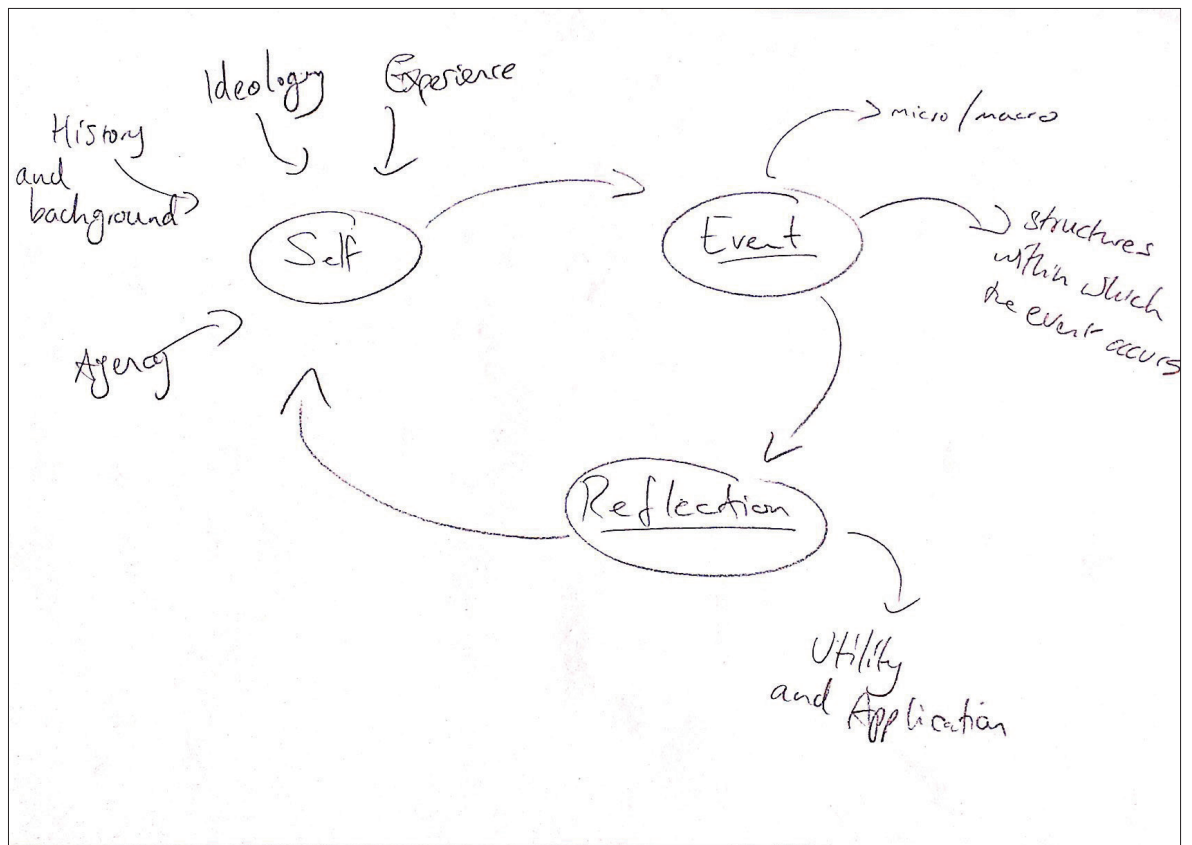
Figure 51.    Drawing by *Steven* (Study Support).

mark-making, multiple shapes, lines and arrows, which accord with key principles of design that were identified in the research methodology as useful to assist the visual analysis of this data. Additionally, mirroring was also evident between the drawings of the early conversations Schön (1983) recorded between Quist, the tutor, and the student during studio critiques (Figure 29, Section 4.6.2.3), thus showing support for reflecting-in-action.

Furthermore, experiential learning, identified across all data sets (A priori analysis finding), also suggested a shared emphasis on dynamic reflective practice. This also aligned with three of Marshall's (2019) components for reflective practice (active, iterative, integrative) and led to consideration of his fourth reflective domain: 'cognitive', associated with deeper levels of thinking and aspects of researching. Ultimately, these multiple visual associations highlight the relevance of drawing to elicit insights that may not be 'drawn' [pun intended] without using a visual methodology.

## 5.6.4    Reflective Practice in Research

Building on Marshall's (2019) cognitive domain as a deeper thought process resonated with research practice, which emerged as a key component within participants' associations of reflective practice, facilitating a cyclical method of thinking. There was common recognition that research was explicitly linked to reflective practice and influenced thinking, doing, and teaching (Figure 49). For example, *Flo* found research 'important,' *Alma* said research 'flows through,' and *Isaac* mentioned, 'my [design] practice has changed now because of research.'Reflective practice was more widely accepted in personal and professional contexts than in teaching, aligning with literature discussed in Chapter 3. Literature Review, on visual, textual, and multimodal reflection. Furthermore, *Alma* linked reflective practice to essay writing, while *Isaac* saw it as mere 'box-ticking.' Differences arose regarding discomfort with framing practice as research, as noted by *Greta*, who struggled with the concept, reflecting Dede's (2005) view of research as 'important but difficult.' This discomfort, alongside the participants' support for visualisation and voiced experiences, suggests that discussing drawings of reflective thoughts could help articulate such challenges. This supports Schön's (1975) concept of reflection-for-action in the context of organisational change.

Furthermore, the extracts collectively highlighted the close relationship between research and cognitive reflective practice, focusing on how research informed teaching and professional practice. This led to reflective processes where concepts were integrated, and thinking was reshaped. However, this integration of research into reflective practice was not prominently depicted in the drawings, even though it was identified as part of the reflective process by *Fred* and *Alma* (Figures 37 and 43).

These drawings are also shown in 'Practice' and 'It's a fine line between structure and box ticking' themes, revealing the multiple meanings that can be inferred from them (Sections 5.5.2 and 5.6.2).

Some participants found it challenging to frame design practice as research, while others recognised its transformative impact, emphasising the cyclical nature of thinking and the importance of linking research to future actions. This further aligns with Schön's (1975) reflection-for-action and transformation, as well as the work of Strop Weber (2015) and Smith (2022 who were discussed in the literature relating to visual practice supporting the articulation of professionalism in research practice. A concept that also resonates with Schön's (1983) concept of artistry, as key epistemology of reflection for the professionals.

However, the challenges identified about research also echo difficulties in understanding critical reflection in art education (Chappell and Chappell, 2016) and teaching development (Šarić and Šteh, 2017). These challenges, though, underscore how research shapes reflective practice and potentially facilitates professional growth within the department and beyond (Bowers et al., 2022). Interestingly, this contradicts Dumitru's (2019) claim that arts and humanities faculties excel in 'creative meaning' due to their aptitude for critical and reflective thinking.

Addressing the integration of research with practice, particularly in reflective practice, could support professional development and foster innovation in learning and teaching. This need for a more integrated approach is reinforced by Dwivedi et al. (2024), who emphasise bridging the gap between research and practice to create meaningful impact. By fostering a culture where staff integrate research into their teaching, institutions can enhance the quality of education and increase the impact of research. This approach could deepen the understanding of reflective practice in both research and teaching, benefiting students and the wider community.

### 5.6.5   Connections Between Critical Thinking and Reflective Practice

Extending the relationship between reflective practice and research introduces critical thinking (Figure 50), *Steven* advocates for reflective practice as a 'critical pedagogy,' going beyond disseminating knowledge and aiming to cultivate intellectual, political, and moral developments. Critical thinking was seen as an analytical process inherent to reflection. *Chloe* (CS tutor) emphasised its positive aspects over negative associations, alluding to criticality assisting overcoming misinterpretation or confusion arising from it also generating multiple perspectives (Brookfield, 1995, 2017).

'You know, if we are talking about developing practitioners, being able to contextualise that is key and that requires an element of reflection regardless of whether you are writing or making'.

—

*Cara*

'I teach students to be reflective, but I don't probably see, I probably don't frame that I'm teaching reflecting practice, I would frame it as I'm teaching them contextual knowledge and understanding and reflecting on that. I wouldn't say, I wouldn't say that I talk about reflection'.

—

*Charlie*

'It's kind of all within a social or historical context. So there's this kind of sense that actually, I don't know, it's like its about me, reflecting on my practice, but its also kind of reflecting on how it exists in the world. And how that might kind of influence, so it's like the kind of internal, practitioner-ery tasks / decisions being made and refleted on but there's also something about understanding it as a sort of object or thing that's out there in the world'.

—

*Connie*

'Whereas, whereas in the pst, in all honesty, I think studio tutors have desmissed cp and I've found it frustrating [...] I think the students can't understand why you do reflective practice, and you can't see them doing that in CS, they can understand that but we're asking them to do reflective practice to make the theory and the studio relate. So I think they think it's writing, and it belongs in CS'.

—

*Ida*

Figure 52.     Participant extracts relating to Overlaps Between Contextual Practice and Reflective Practice.
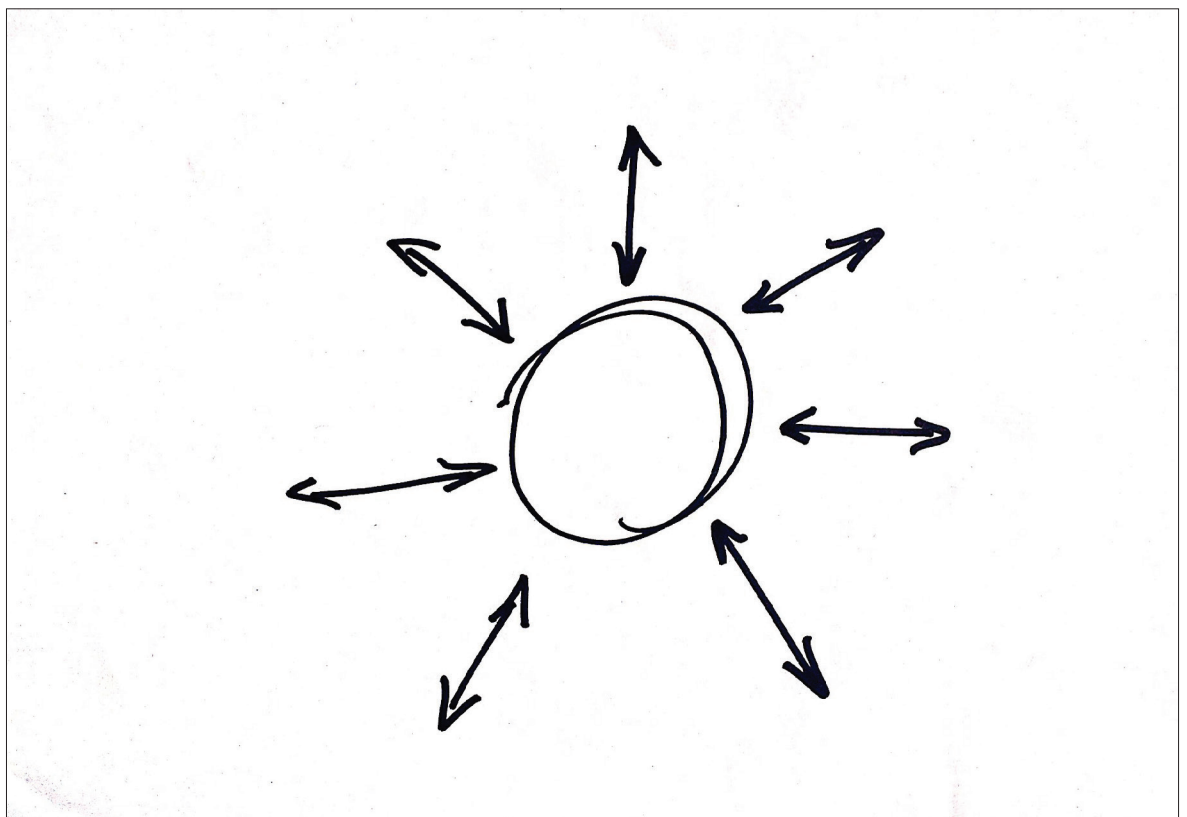
Figure 53.    Drawings by *Greta* (Design).
Figure 54.    Drawings by *Charlie* (Design).

'I think that comes down to the design of the space and you know, if we have more space and students can be more inhabited in the space, then there would be more chance for that [reflective practice]'.
—
George

'The students have workspaces, so they're putting work up so it's a point of communication with you, about how the work's going'.
—
Ann

'I think we actively do [REFLECTIVE PRACTICE] within interiors, you know, this is about the human occupation of this space, how does the person using it feel?'.
—
Greta

'One of the things I encourage my first years to do, is to have their own prsonal space online for writing or photography or for music, because it's a way of them, even if I never see it, okay, I think it's good for them to have a space in which process is more important than end'.
—
Steven

'To be aware of the right setting, you know, this is quite a nice room. I'm looking out of the window, the light coming in and the white space is quite nice to allow you to think. If it was a busy room, it would affect our conversation. I've gone to quite big lengths to get the room, to get the right room; not put up with the room that is first allocated; the encironment is really important'.
—
Roz

'So I utilise the different spaces to do different things; so the conservatory obviously has more light, so I do lots of drawing and small scale things in there, largescale fabrication happens in the upstairs bedrooms [...] there's a different room for the library [...] the reading room, which is a very quiet room and has really gorgeous nursing tables very low to the ground and it just kind of conditions my body, you know, in a particular way, where actually it's really good for consuming words [...] and sometimes it is about taking work that's half done into another space beccause that, the new different associations with that space where, erm, which can challenge the work'.
—
Carl

Figure 55.        Participant extracts relating to Physical Space.

Collectively, the extracts mirrored the challenges of criticality outlined by Šarić and Šteh (2017). This parity with reflection was unsurprising; the A priori analysis identified a standardised approach to promoting 'critical reflection' in the varied programme's LOs, aligning with Hesseling's (2016) design dogmas that endorse critical thinking alongside reflection. However, the discipline was perceived to approach criticality differently compared to other fields. *Connie* highlighted that while critical awareness was integral to design practice, the association with creative and personal practice differed from perceptions of criticality in other academic subjects:

> '...critical thinking is like, a bit like reflective practice, you know, it tends to still involve discussion of your practice [...] whereas, critical thinking for a philosopher would be very academic and divorced from the subject.'

The acknowledgment of differences in understanding criticality across varied disciplines also supports the potential difference in how the Design department perceives reflective practice. For instance, *Steven* (Study Support) had a clear understanding of the relationships between critical, contextual and reflective practices. His drawing of reflective practice (Figure 51) referenced 'ideology,' 'history and background,' 'events and structures,' and 'utility and application'.

These terms, as contextual dimensions, reinforced the importance of questioning, analysing, and evaluating different aspects of experience and knowledge in design education(Bowers et al., 2022; Hesseling, 2016) and wider contexts (Dumitru, 2019). This sophisticated and unified understanding could also align with *Steven*'s doctoral status, which perhaps lends support for levels of experience relating to levels of understanding reflective practice.

It was noteworthy that all extracts in Figure 50 derive from CS and Study Support staff, indicating a shared understanding of criticality and 'critical reflection'. This mirrors the A priori observations that these staff would possess this comprehension. Furthermore, the absence of extracts from Design staff supports the finding that they may view critical reflection as overly theoretical, preferring practice-based approaches instead. Similarly, novice tutors had limited awareness of definitions of reflective practice, reflecting their limited insights about 'critical reflection'. This aligns with many participants' agreement with Moon's (2005) assertion that critical thinking is hard for students to understand, suggesting a broader difficulty in grasping complex reflective concepts across different levels of experience.

Overall, the association of critical and reflective practices supported Sims and Shreeves' (2012) inclusion of the studio and the 'crit' as signature pedagogies in

'Taking space seems, in this day and age, to be like an indulgence, and if it were facilitated better, through the design of buildings, timetabling, of everything, I think we would be working at a happier level, you know, […] and having some space away from the work […] this sense of care and, you know, the place you are, the way you work; it reflects how much time people take for themselves' how much care an organisation or institution has for you as a person and I think this is quite a big thing'.
—
*Greta*

'It would be different if I was trying to create something tangible, whereas I'm just trying to create the space for somebody to grow and develop'.
—
*Connie*

'I think I can trust, that getting an outside point of view can actually be very useful because that kind of creates a space in which you can sort of answer your own questions, because if you, if you have a colleague or friends, you know, and have a conversation about something, I think a lot of the time they don't give you the answer; all they have done is create the space in which you find it for yourself'.
—
*Steven*

'I don't think you get much space to practice reflective thinking […] lecturers don't necessarily facilitate the space for them to do it […] I guess, if it's a safe space [laughs] that, you know, without accusations flying, there could be like, well, do you feel that you pulled your weight, or why not?'.
—
*Flo*

'Reflective practice is about space … a space, a clean space to be able to just enjoy the moment and capture it in your mind […] I would take them to the gallery so we'd take the reflections and we'd go and sit [in there], I'd go and find anywhere actually, it ended up being this space because it was fine, for I just knew I had to get out of the studio into a different place for space and sit on the floor again, spread out. So I'd say, have a look at the work and just get your mind into a different place'.
—
*Thea*

Figure 56.    Participant extracts relating to Conceptual Space.

A&D, where both skills are encouraged (Schön, 1987). The findings suggested that reflective practice was embedded within departmental L&T, and of interest was the questioning of a hierarchy between critical practices and reflection:

> 'I think critical thinking and critical reading and critical writing is far more important than people give it credit for. Whether that's more important than reflection, I don't know' (*Cara*).

The repeated use of 'criticality' by *Cara* suggested prioritisation over reflection, which can be understood from the perspective of a CS tutor who is likely to be theoretically biased. However, while criticality is important, reflective practice complements and enhances critical thinking skills (Hesseling, 2016). Therefore, a balanced approach that integrates both criticality and reflective practice could provide a more comprehensive and effective learning and development experience.

## 5.6.6   Overlaps Between Contextual and Reflective Practices

Reflective practice was intertwined with broader worldviews and professional development (Figure 52). *Cara* and *Connie* emphasised the importance of considering design practice within societal and historical contexts, resonating with them both teaching CS. This unity aligned with the LOs and assignment briefs that referred to reflection and professional practice (e.g., Fashion, *Nexus*, and CS01 units) (A priori analysis), which resonate with Schön's (1983) constructivist worldmaking. Additionally, *Cara* and *Connie*'s long-term experience and theoretical foci contrasted with the lacking constructive alignment (Biggs et al., 2022) identified among novice practice-based Design lecturers (A priori analysis Section 5.2). This suggested a deeper understanding and integration of reflective practice may correlate with longevity of teaching experience and disciplinary knowledge.

Other Design tutors also highlighted the significance of 'contextual knowledge and understanding' in generating reflective practice, preferring to cite contextualisation rather than explicitly referencing reflective practice (*Charlie*). There was also recognition of past dismissals of reflective practice and efforts to bridge the gap between theory and studio work through reflection, despite initial student resistance and confusion (*Ida*). This integration of theory and practice facilitated praxis, leading to reflective practice (Schön, 1983).

Overall, reflection appeared embedded within the language of design (Doloughan, 2002). Furthermore, context was also key to several drawings, depicted in various ways (Figures 53-54). *Greta*'s inclusion of human forms and interactions emphasised the importance of context in reflective practice, while *Charlie*'s two-way arrows
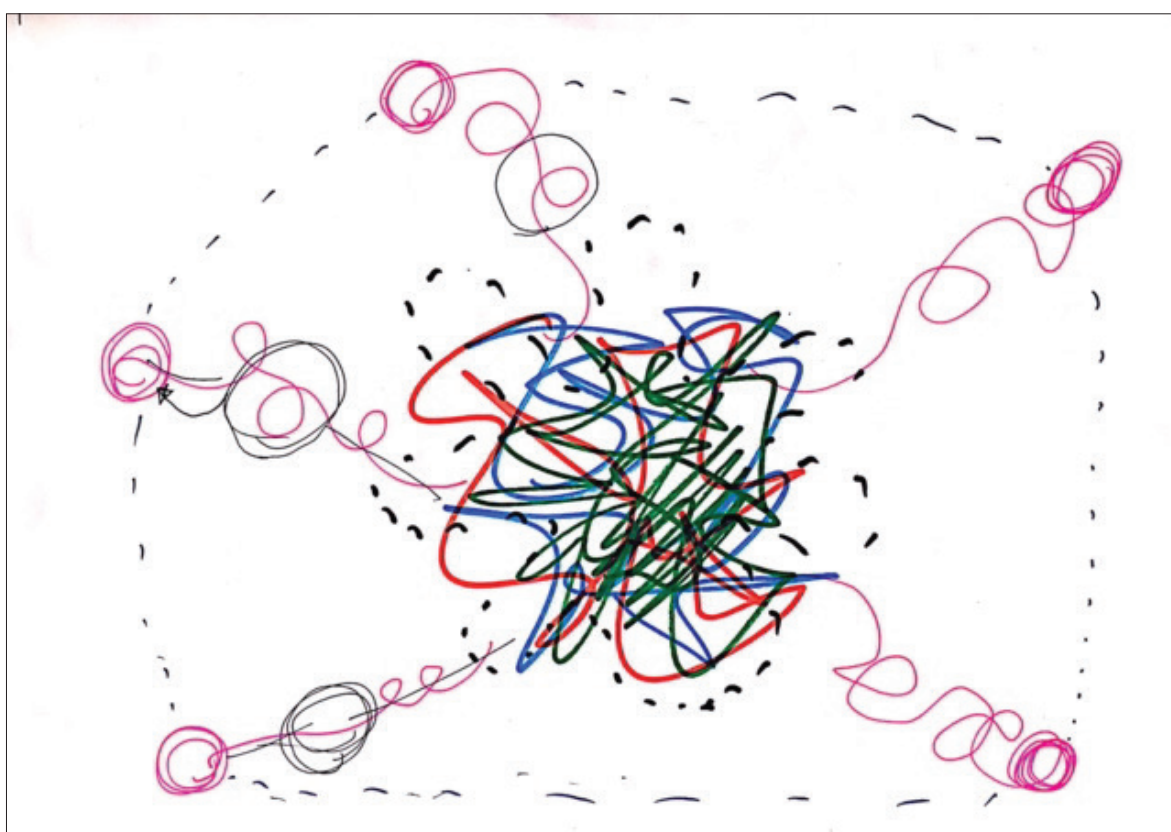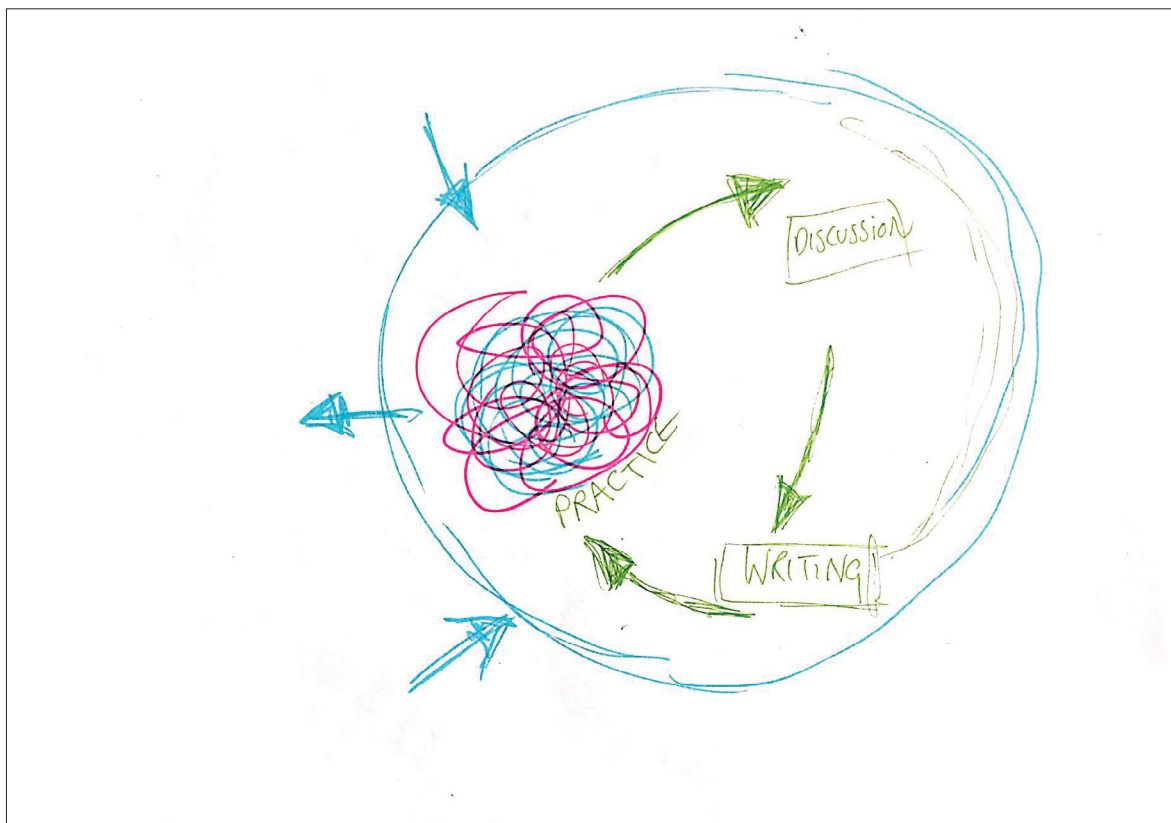
Figure 47.      Drawing by *Connie* (CS)

Figure 57.      Drawing by *Chloe* (CS).

indicated an understanding of context extending inwards and outwards, and his description supported this:

> 'It's about a context, within the context of experience, within the context of how I feel about things [...] that that's where understanding the context of the work, your work within a wider context makes you understand'.

Overall, the importance of contextualisation in reflective practice was evident in verbal accounts and visual representations, demonstrating its relevance and significance with reflective processes, aligned with Schön's (1987) constructivist worldmaking.

## 5.6.7 Physical Space

In addition to the relevance of research, criticality, and contextualisation to reflective practice, the environment also emerged as significant. Extracts in Figure 55 highlight the importance of conducive physical spaces that support contemplation, communication, and creative expression. This was reflected in participants' interpretations of reflective practice within the Design Department, where it was strongly associated with creativity and diverse creative practices. Given the inherent connection between creativity and reflective practice in design education—as emphasised in the first theme of this a posteriori analysis—space plays a crucial role in cultivating these aspects.

### 5.6.7.1 The Impact of the Environment

The design of spaces influenced engaging in reflective practice in L&T, such as requiring ample workspace (*George*) and intentionally selecting rooms conducive to productive discourses (*Roz*). In professional practice, the flexibility and diversity of specific spaces were essential. *Carl* provocatively described how different places facilitate different ways of being and thinking:

> '...the reading room, which is a very quiet room and really gorgeous; nursing tables very low to the ground and it just kind of conditions my body, you know, in a particular way, where actually it's really good for consuming words'.

His words underscore several key aspects including how the nurturing environment promoted positive thinking conducive to work development, how objects such

as furniture enhanced this environment, and how both mind-body dualism and the 'threefold semiotic organism' (A priori analysis, Section 5.2) were exemplified (Bofylatos and Spyrou, 2017; Schön, 1983).

## 5.6.7.2 Iterative Dynamism

Extending the concept of the threefold semiotic organism (Bofylatos and Spyrou, 2017) to physical space and the explicit awareness of connections with people (self with others) plays a pivotal role in supporting and enhancing reflective practice within iterative design (Hong and Choi, 2011). This was illustrated in *Greta's* drawing (Figure 53) that was discussed earlier relating to overlaps with contextual practice and reflective practice (Section 5.6.8), and mentioning the 'human occupation of this space', which resonated with the Model of Human Occupation (MOHO) (Keilhofner, 2008). MOHO, known to the researcher through qualification as an occupation therapist. MOHO relates to reflective practice by emphasising the dynamic interaction between an individual's volition, habituation, performance capacity, and environment in shaping engagement in meaningful activity. This framework highlights how self-reflection, including the influence of space, can enhance understanding and improvement of one's practice and overall well-being.

Furthermore, building on the earlier discussion about the relevance of dynamism in reflective practice, the relevance of physical space to reflective practice in design was further supported by the experiential learning that occurs in these locations (Schön, 1983, 1987). Ultimately, appropriate environments for focused contemplation are inherently linked to L&T; the layout, ambiance, and functionality of spaces influence engagement in reflective practice. Education spaces should provide settings where staff can intentionally experiment and review their practice, facilitating creative processes and catalysing reflective practice (Boud et al., 2006).

## 5.6.8 Conceptual Space

Beyond physical space, conceptual space was also pertinent to reflective practice. Participants from CS, Design and Study Support highlighted a need for headspace to foster reflection within L&T and professional contexts, indicating a unified insight. Extracts in Figure 56 demonstrate the need for psychological capacity to facilitate essential introspection and augment creativity, which again links to the first theme within this analysis.

## 5.6.8.1 Needing a Nurturing Space

'I find that one of the problems with reflective practice is, it's very time consuming to do it well, and I think that's one of the off putting things about it'.

—

*Fred*

'You need to have that motivation to keep up with it, you know […] we get given this admin time and things but it's not enough'.

—

*Thea*

'It's all well and good for me to just sort of, I don't know, walk into work, and think about it, or lie in bed and think about it because we don't get time in the day, to do it […] I think possibly, lecturers don't necessarily facilitate the space for them [students] to do it'.

—

*Flo*

'You're constantly thinking of all the other things you're having to do, and time pressures on you to deliver them, the ability thne, on one day [time allocated for research] to then sit down and feel you are going to do something significant which is going to motivate a change in your practice, to be honest you're absolutely knackered'.

—

*Charlie*

'It can often be difficult to factor it in the midst of the day to day pressures of actually existing within the higher education'.

—

*Steven*

'It's something that's important to me and my development as a professional, but I think there isn't enough time in the institution, for us to really understand the power of it, to really use it'.

—

*Chloe*

Figure 58.     Participant extracts relating to Time Constraints and Work Pressures.

A safe, non-accusatory mental space (*Flo*) that promotes 'care' (*Greta*), 'growth and development' (*Connie*) were key to reflective practice, and form a key part of the current HE A&D landscape (Ellis, 2023; Marsden, 2023; Smith and Ulus, 2023). This space was deemed to enable objectivity, to 'sort of answer your own questions' (*Steven*), and for creating conceptual space for self-discovery and problem-solving (*Thea*). These conceptualisations support Amulya's (2004) recommendation of reflective practice facilitating 'breakthroughs' through enabling 'creativity to flourish', which further links back to the first theme within this analysis and the fundamental drive of creativity to influence reflective practice and hence inform L&T and professional practices. Additionally, similar drawings by CS staff (Figure 47 and 57) mimicked this reflective revelation, supplemented by *Chloe*'s related description regarding the need for cognitive space to unravel her thoughts for advancement.

> 'I'm reflecting constantly, this, this conversation in my head and, and that bundle in the middle is all of that going on all at once. Then the dotted black lines are me trying to unravel that a little bit […] unravelling to another level, to where I'm analysing, and I'm coming up with maybe future directions' (*Chloe*).

*Chloe*'s visual and verbal responses captured an energetic process of reflection, aligning with the iterative nature of reflective practice in design (Hong and Cheng, 2011). Additionally, the elements in *Connie*'s drawing, encapsulated in a circle, suggested these activities occurred harmoniously within the mind. Together, both drawings represent dynamism, emphasising that a conceptual nurturing environment is needed for effective reflective practice. The concept of nurture, also acknowledged as applicable to physical space, highlights its overall importance to reflective practice in design education. This resonates with Schön's (1983, 1987) focus on the design studio, which, while not being explicitly voiced in these findings, is inherent in the participants' references to space. For example, both *Chloe*'s and *Connie*'s reflections on the importance of a nurturing cognitive environment underscore the need for such spaces in creative practice. The omission of direct references to the studio space itself may be linked to the rise of hybrid and blended pedagogies, which have expanded across UK education since the Covid-19 pandemic (Government Events, 2024).

However, while recognising the benefits of hybrid learning environments, Standley (2020) cautions that blended pedagogies may not always be conducive for academics, as they can disrupt educators' identities and challenge traditional approaches to learning and teaching. Thus, the findings in this thesis offer a valuable contribution by updating Schön's (1983) focus on the studio to a more contemporary interpretation, highlighting the association between a nurturing environment in Higher Education (HE) and reflective practice. This nurturing

'Reflection is thinking about things, then reflective practice is then positively or tangibly responding to them. I think until then, you're reflecting. But until you actually do something, it's not reflective practice'.

—

*Charlie*

'What I consider to be reflective practice is something I've probably done since my PGCE and academic practice'.

—

*Thea*

'I can lie on a beach and reflect, but I'm not doing reflective practice'.

—

*Roz*

'Reflective practice is putting into action, the things you are thinking about. So that's when it becomes practice'.

—

*Arthur*

'Students often focus excessively on thinking and talking about "practice-based stuff" without taking action […] I think the practice word is challenging. When I try to explain to people you don't know what I do, what I do, the practice word throws them because we use it as a noun not a verb and I think that's hard for people, because we don't use practice in a way which English language intended to be; we use it with a 'c' and not an 's' etcetera'.

—

*Connie*

'Reflection could be very off piste, very spir of the moment […] Whereas reflection practice is doing it very regularly and getting used to doing it for more sort of a steady period of time. And thinking about common wins, and how many times you would go over the same sorts of questions and variables'.

—

*Sara*

Figure 59.      Participants extracts relating to Reflection vs. Reflective Practice.

approach could help mitigate the challenges posed by hybrid learning and alleviate tensions surrounding the need for time and space for reflection.

Furthermore, the findings suggest that reflective practice within a nurturing space may foster the creative freedom essential to effective learning and teaching, thereby utilising design dogma (Heseling, 2019; Lee-Smith, 2019) for local benefit. With further research, this could potentially have a wider impact on educational practices, particularly in the context of creative disciplines.

## 5.6.8.2    Space Integration and Well-being

The association between mind-and-body dualism within reflective practice with physical space was also evident in conceptual spaces (Kinsella, 2009; Schön, 1983). These contexts become interwoven; 'a clean space to be able just enjoy the moment and capture it in your mind (*Thea*), suggesting there is a requirement for an unpolluted ecology of space for effective reflective practice. Furthermore, the positive interplay between these spaces and nurture to reflective practice highlighted the potential to support well-being in the department. Amulya's (2004) emphasis on achieving 'breakthroughs' when reflecting on positive outcomes underscores this association. Additionally, when participants reviewed definitions of reflective practice (Appendix 21), from a list of five chosen from James' (2007, p.1) influential study, Amulya's was the third most preferred:

> 'By locating when and why we have felt excited or fulfilled by an experience we gain insight into the conditions that allow our creativity to flourish'

The emotional resonance of this definition reinforced the suggestion that having access to conducive physical and mental spaces for reflective practice contributed to professional development (Schön, 1983), which could also alleviate inherent anxieties in HE. This concludes the exploration of physical and conceptual spaces, which become entwined in cultivating reflection. Dynamism and nurture were also crucial in supporting the fluid and interconnected nature of reflective practice in Design, highlighting the need to consider the impact when these elements are compromised.

Notably within the ethno-case study setting of the department's studio culture, Bourdieu's (1984, 1990) theory of social capital highlights how networks and relationships within design education can foster the sharing of knowledge, creativity, and support. A nurturing environment enhances these social connections, contributing to both individual and collective growth. In this context, social capital

'Reflective practice to me is about sort of creating something'.
—
*Connie*

'It is the idea that the output of a process feeds back into the input of a process [...] the idea develops through making, and then once you've made the thing, that sets up a next stage of evolution for a new idea, new making'.
—
George

'I think I should almost try and dedicate more time to making [...] I did this performance that was basically came all out of my iPhone notes and then I've formally managed to write it up in a different way and then worked out how to perform it. So maybe sometimes the reflection, sometimes there's a sort of a huge crossover between reflecting and making, maybe, yeah. Like a Venn diagram, where the two meet in the middle [laughs]'.
—
*Greta*

'Lots of people, including myself, are thinking more about these kind of rhythmic properties and the whole making process, which induces this kind of thinking. You're making; the topic for me, it's the making and, [...] and then maybe you kind of add into it and inform that to make the next thing'.
—
*Polly*

'I'll get so far with the sketch book, I'll start to lay it all out, and then I'll want to start making things [...] which is a point where working, where the flat work just isn't communicating, isn't getting them anywhere and I say, 'Okay, we've got to get out of the sketch book and get onto a sewing machine and making something by hand or you know, you've gotta produce something'; and I'm just the same, I just have to make, make'.
—
*Fred*

Figure 60.     Participant extracts relating to 'Making'.
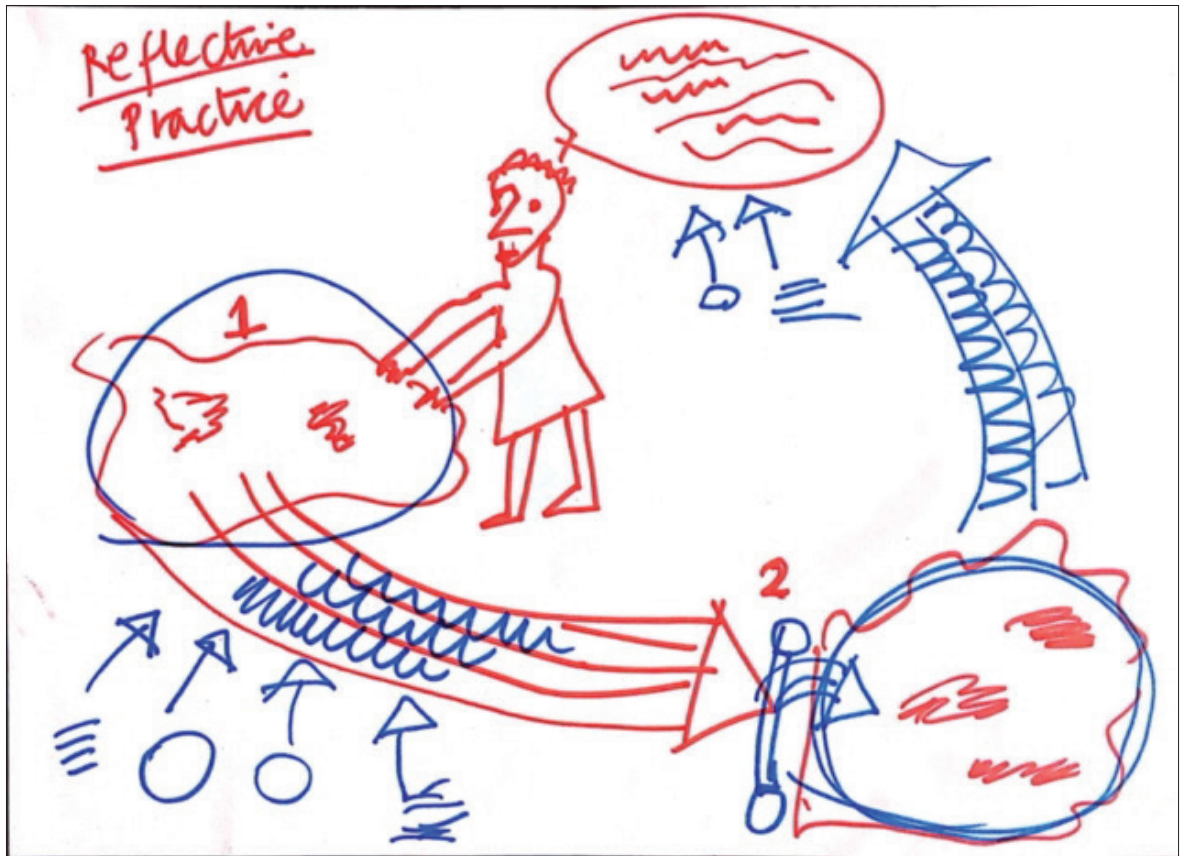
'So, this is me, and I'm making a piece of work. And while I'm making, I'm thinking all kinds of different things, in lots of different ways. So that process of thinking and considering and completion generates a whole load of more ideas'.

Figure 61.    Drawing and extract by *Polly* (Design).

strengthens reflective practice by enabling collaboration and intellectual exchange, further supporting personal and professional development, and thus artistry (Schön, 1983; Kinsella, 2009) within the department.

## 5.6.9  Time Constraints and Work Pressures

As a culmination to the theme 'Academic Practice', the prevalence of challenges posed by barriers to engaging with reflective practice were useful to review, particularly in light of the positive stance taken regarding notions of nurture. Extracts in Figure 58 enforce the perception that reflective practice demands substantial time and effort, impacting on consistent engagement. This arduous sentiment positions reflective practice as 'off-putting' (*Fred*), requiring 'motivation to keep up with it' (*Thea*), which was deemed a limited resource and something out of reach, as indicated by *Charlie*: 'to be honest you're absolutely knackered'.

Within the context of 'actually existing within HE' (*Steven*), as emphatic rhetoric, the lack of time and energy for reflection among staff could impact on their abilities to encourage student engagement (*Flo*). Moreover, while reflective practice can confer 'power' (*Chloe*), it could be counterproductive within the neoliberal framework of HE (Whitchurch and Gordon, 2010). Hence, maintaining the interpretivist paradigm of this research, Foucault and Hoy's (1986) concept of power dynamics becomes relevant, as the hierarchical nature of academic institutions could influence reflective practice. Expectations to engage in reflective practice, despite limited time and resources, could create tension between academic autonomy and institutional demands. Instead of fostering empowerment, reflection may become a form of control, stifling creativity and encouraging compliance over critical engagement, as suggested within participant notions of rejection and scepticism. Power dynamics can also impact L&T by deterring discussion and expression, or by abuses leading to discrimination and oppression, and hindering professional development (Archer, 2007; Thompson, 2007, Zohar, 2023), which opposes Schön's (1983) theory of development for the professionals. Hence, these factors highlight the complexity of reflective practice, underscoring the need for careful navigation to ensure it strengthens rather than inhibits learning and growth.

These constraints were further illustrated in responses to selected definitions of reflective practice regarding Dewey's (1933, p.18) description of, 'Active persistent and careful considerations of any belief or supposed form of knowledge…' and,'Turning a topic over in various aspects and in various lights so that nothing significant about it shall be overlooked…' (ibid, p.57) (Appendix 21). Requirements for maintaining meticulous scrutiny of oneself appeared dogmatic.

'Yeah, yeah, that persistently Turning The Stone Over, I just want to move on. I just want to learn from it. Because, because our lives are so busy, we don't have time to turn over so many...' (*Chloe*).

This perception of reflective practice as exacting conflicts with the need for practical solutions in educational settings (Augar, 2019). Furthermore, *Chloe*'s reference appears contradictory to Hesseling's (2016) design dogmas, which advocates for situational awareness and positive reactions to develop effective outcomes. The difficulty of prioritising reflection amidst daily L&T responsibilities aligns with Bruno and Dell'Aversana (2018), who had concerns for the negative impact of educational settings on student reflection. While the thesis focuses on staff, this finding highlights challenges in integrating reflective practice into teaching due to time constraints and other neoliberal priorities (Whitchurch and Gordon, 2010). This underscores the need for both physical and conceptual space for effective reflection. Constraints on reflective practice will hinder engaging with and understanding reflective practice and further impact of L&T and professional development.

While this section has raised probable conflict with Schön's (1983) view of reflection advancing professional growth, this perception could be counteracted through the notions of nurture discussed immediately above, and considering Schön's (1975) earlier advocacy regarding organisational transformational through reflective practice. This suggestion culminates the theme of Academic Practice, leading to scrutiny of more practical applications of reflective practice.

## 5.7 Practising Practice

This theme explores the intricacies of practising reflective practice in design, which entwines creating tangible outputs (making) through manipulating materials and tools (doing) (Barrett, 2007; Blazwick, 2022; Sims and Shreeve, 2012). In this context, understanding the terminology used by participants reveals how linguistic nuances affect their engagement with reflective practice.

### 5.7.1 Variations in Terminology

Participants used varied terms for 'reflective practice,' from the full term to shortened forms like 'reflect' (Figure 59). This variation highlights a broader ambiguity within the Design Department regarding the term's use and understanding. *Connie* (CS UL) noted the need to balance 'thinking and talking' with practical application, which demonstrated an understanding of reflective practice and its importance in design practice despite opposing gaining a teacher

'It's the practical skills, the practical skills, which they are being reflective about, because they are learning taste level and understading the techique and process, but I don't think they recognise that that is a form of reflective practice'.

—

*Fred*

'I used to teach on practice-based stuff [...] and we'd sit around for ages and have conversations about what we wanted to do and why we wanted to do it. And I'd always say to them, you need to get up and do the thing. Stop talking and do the thing. So I guess there's a bit of a temptation to do, to do the reflecting on stuff and ot doing the thing'.

—

*Connie*

'We have the practical side of it, [...] doing like some practical work, and then that kind of leads to our reflective practice'.

—

*Alma*

'I found when I was thinking of a concept, I would also be thinkingof the curation and when I was researching, I'd obviously be thinking about final outcomes [...] and then reflection is kind of going on all the time'.

—

*Fred*

'I learned a process of doing something, thinking about it, changing something, doing it again, thinking about it, doing, so this model of this practice or this process is something that I have taken into the ability to try and deconstruct something and then teach it back, but not teach it because I'm at the front of the classroom teaching you what you need to know, but segmenting it and setting up stages and challenges that allow the learner to be able to do it for themselves'.

—

*Uma*

'I wouldn't use reflective practice as a term, practice is very present, because mostly they are practitioners, and they're using their practice to examine their question'.

—

*Polly*

Figure 62.        Participant extracts relating to 'Doing'.

qualification, as discussed previously regarding rejection and scepticism for reflective practice. This reflected fluctuating responses, which could be due to numerous factors. One of which could be uncertainty about reflective practice, hence changing opinion. Notably, *Connie* also stressed that in design, 'practice' integrates both noun and verb uses, which differs from mainstream literary definitions of 'practise' as a verb. Similarly, despite dismissing knowledge of reflective practice, *Roz* (a researcher) articulated distinctions between this term meaning an iterative process and 'reflect' being contemplation. *Thea* (Design SL) acknowledged teacher training had influenced her reflective and academic practices, which suggested alignment with Schön's (1983) theory for professionals. These mutable stances lead into the next discussion.

## 5.7.2    Varied Levels of Understanding

Participants' views clarified differences between terms and university guidance. Overwhelmingly, 'reflective practice' was ongoing and dynamic, indicating a clear understanding, while 'reflection' was isolated and static, opposing LTD's recommendation for the end-point 'reflect'. However, the shared understanding of 'reflection' resonated with Schön's (1983, 1987) in-and-on-action model, as discussed in Chapter 2, Theoretical Frameworks, regarding clarifying and combining in, on and for-action (1975).

These combined modes of reflection support the *Valor* unit's sanctioning and align with the researcher's suggestion that Schön's (1975, 1983, 1987) theory appeared appropriate for use in design education. These fluctuating stances lend further complexity and illuminate distinctions between Design and the wider university. Hence, Amulya's (2004) emphasis on 'breakthroughs' appears better suited to design practice, corresponding with iterative practising and the influence of time and space (5.6.8 Conceptual space).

Altogether, these fluctuations and differences in how reflective practice was articulated lend support for a department definition and methodology for design education to be developed. The emergent understanding of reflective practice supports A&D's ideology of challenging mainstream norms. For example, both Julier (2013) and Hesseling (2016) emphasise that reflective practice is crucial for design activism. This involves assessing and responding to current contexts like neoliberalism, leveraging assets, and influencing societal orientations through practising practice. This approach is essential for design evolution, balancing action with reflection to resist common conventions. Accepting this approach suggests that Design should reject the university stance and embrace its own critical pedagogy.

'So thinking through materials, […] drawing their journey to university, but I'm just giving them a till roll of paper, and they have to make it 3D […] it's about understanding the behaviours of material very quickly […] so for example, denim, you could fray it or if you think it feels quite sturdy then think and pause about those words'.
—
*Carl*

'Like we talked a lot about types of fabric, and what their meaning is, what the symbolism is, what they carry with them, the associations; if you have a kind of piece of rough hessian, or […] something very different than if it's silk. So you have to verify, you have to very consciously make those choices through the making practices and reflect on them'.
—
*Polly*

'Certainly some of the tools, and some of the ways of thinking that say, getting people, getting the students to work on a knitting machine […] opens up a way of thinking […] but yeah, I think each tool will bring, bring its own, bring something to the party'.
—
George

'Some of the ways of thinking that say, working with digital projection design opens up, that's something that I can only bring by getting people playing with projectors'.
—
*Polly*

Figure 63.        Participant extracts relating to Materials and Tools.

### 5.7.3 Reflective Practice Within the Making and Doing

The extracts in Figures 60 further assert that reflective practice was not solely about thinking but entangled within making and doing as creative acts.

This entanglement aligns with both Haraway (1997) and Barad's (2007) notions of diffraction and Schön's (1983) reflection-in-and-on-action model. While Schön's model offers a valuable starting point, relevant for a foundational insight, the nuanced understandings of reflective practice inherent to diffraction, emphasise the complex interrelationships within both experienced teaching and professional practices and experiential design practice, moving beyond a solely individualistic approach. This shift is relevant for a departmental understanding.

Given the university's affinity with 'reflection', aligning with Schön (1983), the deep scrutiny of Schön's (1983) epistemologies of reflective practice as a key theoretical framework is useful, regarding technical rationality linking to ongoing dialogues between making and the evolution of ideas, as well as concepts of constructivist worldmaking, artistry, and mind-and-body dualism linking to tacit practice (Kinsella, 2009). Correspondingly, reflection was perceived as commonly occurring concurrently during making processes, blurring the lines between the activities of thinking with making and doing. This merger possibly accounts for reflective practice not being fully understood within Design, potentially aligning with Argyris and Schön's (1992/1974) emphasis on theories-in-use and tacit knowledge whereby skills and practice become embedded within actions, potentially leading to a lack of conscious recognition.

*Polly*'s drawing (Figure 61) of a person using their hands during an activity, with arrows leading to further activities, explicitly highlights the unity of making and thinking. Placing the figure centrally, also suggests an inherent understanding of Schön's (1983) epistemologies in union during the acts of productivity. This unity could also be linked to Csikszentmihalyi's flow state (1989), whereby a complete immersion in an activity, where a person is fully engaged and focused, to the point where they lose track of time and self-awareness.

This drawing illustrates *Polly*'s perception of how reflective practice integrates with design's methodology. Moreover, the inclusion of a person was similarly depicted by *Arthur* (Figure 36, Creative Practice theme, Section 5.5.2. Both of these drawings contrast with common diagrammatic depictions of models, as demonstrated by Schijf et al. (2023) and Third (2022) (Figures 26 and 28, Section 4.6.2.3). This personification lends humanity to 'reflection,' possibly endorsing the use of drawing and the integration of oneself into visualisations of reflective practice, presenting an effective and practical contribution to the field.

'I can see it [reflective practice] being really beneficial for students that have got a heavy media influence, photography, film or whatever, because it's that way of kind of making it visible and communicating to an audience, so it serves a double purpose'.
—
*Fred*

'It's in his sketchbooks particularly but it is apparent within his digital work and final outcomes, how he's growing by reflecting [...] and a third year, she's quite good at it as well, a lot of her work is kind of writing everything down'.
—
*Arthur*

'Showing is, is part of it [reflective practice], and I think I show a lot [...], because I have; I'm quite like a voracious documenter of things; so perhaps a lot of that is like documenting the process of that, so I can reflect on it'.
—
*Tamina*

'I think I should, I should document it. I thik that for me thinking about it now [...] if I tooka leaf out of [laughs] what I tell my students, to keep a bit of a journal, even if it's just notes or bullet points, I think for me, because it's down on paper, it would help me formulate it'.
—
*Flo*

Figure 64.     Participant extracts relating to Documenting Practice.

## 5.7.4    From Making to Doing

While 'making' emphasised construction and production for the participants, 'doing' connected within the context of mind-and-body dualism, or 'knowing' from action (Schön, 1983, p.280).

> 'Doing and thinking are complementary. Doing extends thinking in the tests, moves and probes of experimental action, and reflection feeds on doing and its results. Each feeds the other, and each sets boundaries for the other'.

Reflecting on design practice and processes (using the mind) are brought to life through the actions of the body (doing). This embodied experience of 'doing' reflective practice strengthens the connection between thought and action, generating a deeper understanding of the design process. Extracts in Figure 62 epitomise this embodiment. For instance, linking of 'techniques and processes' of design with 'learning taste levels' (*Fred*, part-time Associate Lecture and freelance practitioner); likewise, the deconstruction of thoughts were seen synonymously with repeated acts of 'doing' (*Uma*, from *Valor*) to a more simplistic articulation, 'doing practical work [...] kind of leads to our reflective practice' (*Alma*, GTA). Collectively, these reflections by staff with varied roles and responsibilities also endorse previous suggestions that levels of experience and teaching practice related to levels of understanding and articulating reflective practice.

Notably, the physical and conceptual manipulation involved in designing outcomes facilitates an intuitive understanding of the relationship between intended outcome behaviour, user interaction, and emotional impact. This aligns with Bofylatos and Spyrou's (2017) concept of the threefold semiotic organism, discussed in Iterative Dynamism (Section 5.6.7.2), and is associated with Vygotsky's principle of socio-cultural development (Kinsella, 2009). This connection was also highlighted concerning Design's LOs aimed at facilitating this transmission along with study support interventions (Appendix 14. A Priori Analysis Summary Table). Together, these elements endorse the correlation between design practice and reflective practice, spanning several theoretical frameworks and supporting the concept of diffraction (Barad, 2007) due to the complexity involved.

This praxis knowledge is foundational to 'designerly ways of knowing' (Cross, 2007) and enables the proposal of innovative solutions that other disciplines might overlook (Hesseling, 2016). *Polly* further advocates for an embodied transmission between design practice and reflective practice within doctoral study, suggesting that reflective practice is inherent when 'using their practice'. Her reference to postgraduate learning highlights the applicability of experiential reflective
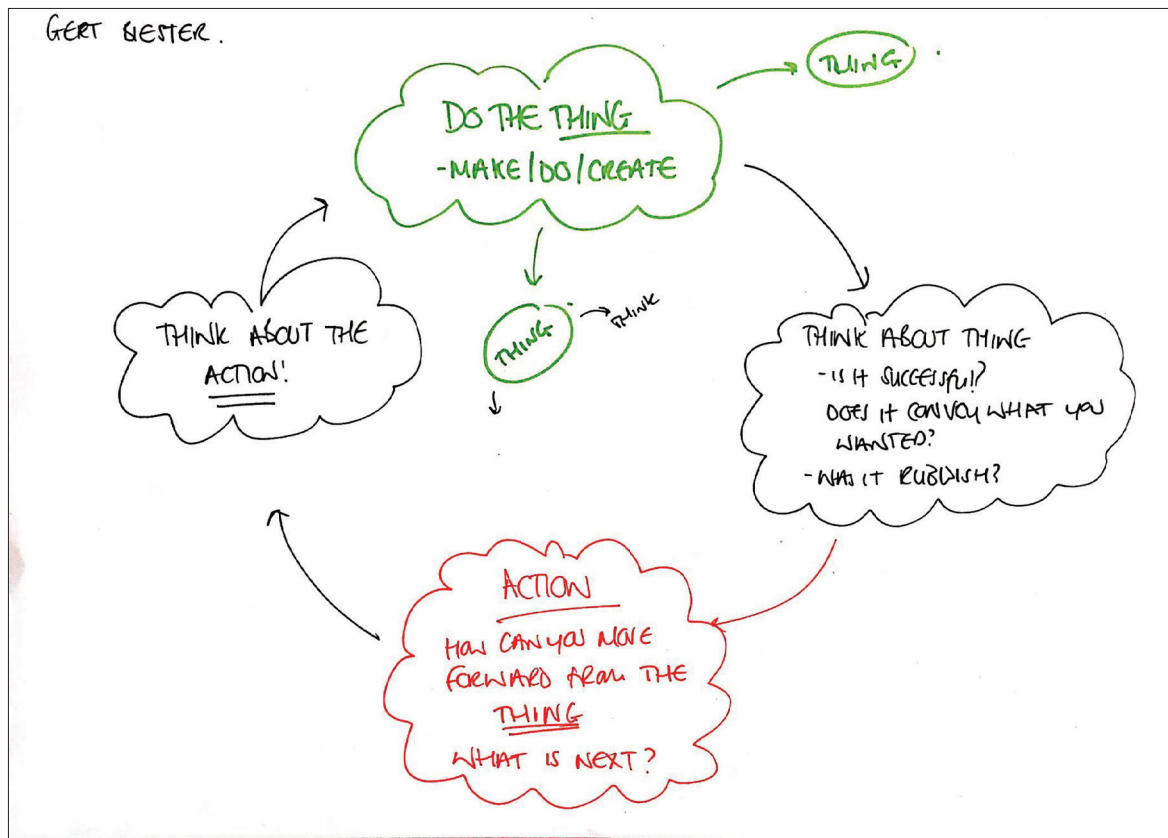
'A lot of it is about presenting their work [...]. A lot of its about presenting their work and then getting bits of comments by maybe mixed groups people they don't usually get to present their work to [...] presentation, I think, like, not a presentation like a PowerPoint; presentation in how you show somebody those ideas, how you present the thing or the idea, I think that's quite important'.

Figure 65.    Drawing and extract by *Tamina* (Design).

'When I say I've assessed it's more of as part of a sketch book. So it's more of a kind of process that we assess, so the reflective practice helps us understand how the project went on. If theyy've got it it's in the sketchbook'.
—
*Arthur*

'I think everything we do it, we live, we respond to the visual, the aesthetic of what we are, where we are, where we work, the environment we are in [...] I'd be looking for pathways out of that, [...] visual links to things that I actually want to depict or draw [...] I'm trying to find patterns within the problem'.
—
*Idris*

'It might be based on annotation in the sketch book, which can be very minimal; it could even be based on visual language content in the sketch book'.
—
*Fred*

'If I'm sat with someone [a student] and if there's ever a problem you know, I'll get them to picture if out on the table [...] Picture it out, I'll say, well I'm here and where is the problem? It's over here'.
—
*Thea*

'I used to have an abacus on my desk, which was sort of measuring my emotional intelligence, that after seeing student, I'd move it, I'm getting angry now and I'd think let's reflect and stop'.
—
*Sandra*

'Watercolour, penci, pen, it helps me to think. It does change my thinking. In fact I ought to do it more as I haven't done it for a while [...] if I'm, I usually go to the sketchbook if I'm stuck, and if I need to get something out'.
—
*Roz*

Figure 66.        Participant extracts relating to Visual Practice.

practice across various levels. Moreover, *Polly*'s mention of advanced study led to a consideration of distinctions among staff in their understanding of reflective practice, depending on their teaching experience and role enactment (Appendix 19. Participant Pseudonyms and Demographics).

Experience-informed differentiation in the understanding of reflective practice was revealed through the A priori content analysis. Lecturer-level staff often confused critical thinking with reflective practice, embedding it into assignments despite its absence from the LOs and without providing theoretical references or guidance. However, despite senior-level staff providing detailed instructions for producing 'reflective documents' for assessment, they similarly failed to mention any reflective models or references, and reflective practice was also omitted from the *Nexus*' LOs (Appendix 9). Hence, the differences were not necessarily associated with teaching experience but more directly suggested a limited understanding of the relevance of theories or models to support student learning. This may indicate that staff either lacked theoretical grounding themselves or did not consider such models practical or essential for underpinning reflective practice.

This highlights the need for clearer theoretical guidance and structured approaches to reflective practice in design education, ensuring that both staff and students are equipped with the necessary frameworks for meaningful reflection. Additionally, deliberations about 'making' and 'doing' fed into considering equipment that aids this action.

## 5.7.5   Materials and Tools: Prompting Exploration and Reflection

Materials and tools were crucial in influencing reflective practice (Figure 63). Working with common A&D resources such as paper and denim (*Carl*), and other materials like 'rough hessian or something very different than if it's silk' (*Polly*), contributed to distinct perspectives and approaches to design practice. These materials prompted an understanding of the properties, behaviours, and symbolic meanings that are essential in design education to facilitate and aid decision-making within creative practice, supporting both semiotic mediation and embodied practice (Bofylatos and Spyrou, 2017) and reflection-in-and-on-action (Schön, 1983; 1987). Likewise, tools and equipment offered similar opportunities for exploration, such as using a knitting machine (*George*) or digital projection (*Greta*).

Engaging with materials and tools encouraged experimentation and questioning of design decisions. The knowledge and experience gained from these interactions expanded thinking and problem-solving abilities, supporting discussions in this theme about practising practice. Ultimately, making and doing were intertwined

Table 10. Collective Findings from the Visualisation Task Outcomes

| Participant Drawing Fig. Ref. | Discipline/Prog | | Symbolic Ref. | Snake eating tail | Pyramid | People | Cyclical | Arrows | Labels | Ball of scribble | Dynanism | People working | Self | + red | + yellow | + blue | Amends drawing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 73 | | George | | X | | X | | | | | | | | | | | X |
| 53 | | Greta | | | | | | | | | | X | | | | | X |
| 39 | | Idris | | | | X | X | | X | | | | | | | | |
| 36 | | Arthur | | | | | | X | | X | | | | X | X | | X |
| 43 | | Alma | | | | | | | X | | | | | | | | X |
| 37 | | Fred | | | | | X | X | | | | | | | | | X |
| 70 | | Flo | | | | | | X | | | | | | X | | | X |
| 46 | | Thea | | | | | X | | | X | | | | | | | X |
| 65 | | Tamina | | | | | | X | | | | | | | | | X |
| 61 | | Polly | | | | X | X | | | | X | | | | | X | X |
| 76 | | Ann | | | | | | X | | | | | | X | | | X |
| 92 | | Carl | | | X | | | | | | | | | X | | X | X |
| 54 | | Charlie | | | | | X | X | | | X | | | | | | |
| 98 | | Uma | | | | | | X | X | | X | | | | | | |
| 91 | | Ida | | | | X | | | | X | | | | X | X | X | X |
| 45 | | Isaac | | | X | | | X | | | | | | | | | X |
| 47 | | Connie | CS: Contextual studies / Res: Research | | | | X | X | X | X | | | | | | X | X |
| 57 | | Chloe | | | | | | | X | X | | | | | | | X |
| 67 | | Cara | | | | | | X | X | | | | | | | | X |
| 68 | | Roz | | | | | | X | X | | | | | | | | X |
| 48 | | Sandra | | | | | | | X | | X | | | | | | X |
| 51 | | Steven | | | | | X | X | X | | | | | | | | X |
| 40 | | Sara (1) | | | | | | X | X | | | | | | | | X |
| 69 | | Sara (2) | | | | | | X | X | | | | | X | | | X |
| | | | | 2 | 2 | 4 | 18 | 18 | 14 | 4 | 6 | 3 | 1 | 10 | 3 | 4 | 19 |

| KEY | Design | CS: Contextual studies / Res: Research | SS: Study Support |
|---|---|---|---|

191

practice and contributed to an embodied reflective practice. Varied resources complemented this process by stimulating exploration and tacit knowledge development, and reinforcing the importance of artistry, constructivist world-making, technical rationality, and mind-body dualism in reflective practice (Kinsella, 2009). Furthermore, this embodied understanding of reflective practice in design was supported by James' (2007) and Ali's (2020) in visual communication and fashion subjects, contributing towards developing a collective understanding of reflective practice across the spectrum of design education.

## 5.8    Demonstrating Practice

This theme highlights the varied formats through which reflective practice is portrayed in design education: 'Documenting' makes the process visible, 'Visual practice' emphasises problem-solving, 'Verbal practice' focuses on critique, 'Written practice' organises thoughts, and 'Group practice' underscores collaboration (Sims and Shreeve, 2012; Orr and Shreeve, 2019).

### 5.8.1    Documenting Reflective Practice

Documentation emerged as a fundamental aspect of reflective practice within the Design Department, as *Charlie* enforced:

> 'And although we explicitly say, it will not be marked on how it looks, we always will, you know, contradictorily, we say you're a designer right; it's an opportunity for you to design it and if it helps you communicate what you want it to why wouldn't you?'

The collaborative unit, *Nexus*, endorsed recording reflective practice, as discussed in the previous section regarding a 'reflective document' for assessment. Extracts in Figure 64 highlight that documenting the creative process explicated reflective practice for students and supported staff to assess it. Notably, several staff, as previous Design students having undertaken *Nexus*, had also engaged in this format of reflecting at the end of the unit, aligning with LTD's guidance (A priori analysis, Section 5.2). The value of diverse documentation methods, such as sketchbooks, digital work, and written notes, in promoting self-reflection and nurturing growth was recognised. This variety aligned with Ali's (2020) findings that explored the impact of critical reflection in visual communication design education for undergraduates in Pakistan. Given the thesis study spanned several design disciplines, correlation with Ali's research lent tentative support for a global understanding of diverse methods to document reflective practice across design

education. Although further research is needed to explore this in more detail and across a wider range of cultural contexts.

Moreover, looking in further detail, *Tamina* reinforced the importance of visual presentation within design (Figure 65 with extract). *Tamina*'s drawing and description linked documentation to reflective practice by showcasing design practice, 'make/do/create', facilitating reflection in oneself and the audience, as peers and tutors. This resonated with the Practising Practice theme findings, mimicking reflecting in-action in the studio (Schön, 1983). Additionally reference to audience links with Finlayson's (2015) multiple paradigms of reflective practice inherent to the Vygotsky principle, temporality and socio-cultural theory (Kinsella, 2009), which lend further support for reflective practice in design education encompassing an expansive domain. Subsequently, deeper consideration of other practice methods were undertaken, including the outcomes of the visualisation task set during the participant interviews.

## 5.8.2   Visual Practice

Visual practice was central to design practitioner participants' reflective practice, as evidenced by the clarity provided within the staff task outcomes. Sketching, drawing, and annotations were essential methods for externalising thoughts and exploring ideas (Raven and Textbook Studio, 2019a, 2019b; Rogers, 2008). Visual methods allowed for deeper exploration of nuanced thinking and facilitated the identification of connections (Figure 66).

Through sketch-booking, *Arthur* emphasised the power of inherently visual and experiential activities, for understanding and communicating a project's journey and reflective practice. *Idris* illuminated the significance of aesthetic stimuli in shaping understanding of the world and responding to challenges, and *Roz* described the importance of 'watercolour, pencil, pen', it helps me to think', revealing tacit insights perhaps difficult to express verbally. Interestingly, *Sandra*, from Study Support, stressed the importance of seeing and physically moving balls on an abacus to facilitate reflection and manage emotional situations.

Visualising reflective practice offered multiple advantages: enhancing the research process by assisting the analysis of complex design concepts (Gray and Malins, 2016), depicting 'critical reflection' in fields like fashion (James, 2007), and employing diagramming in graphic communications (Ali, 2020). However, the overall scarcity of visual reflective practice in A&D research, as noted by James (2007) and Gray and Malins (2016), suggests a significant gap that this study begins to address. Moreover, visual methods generated positive personal and professional
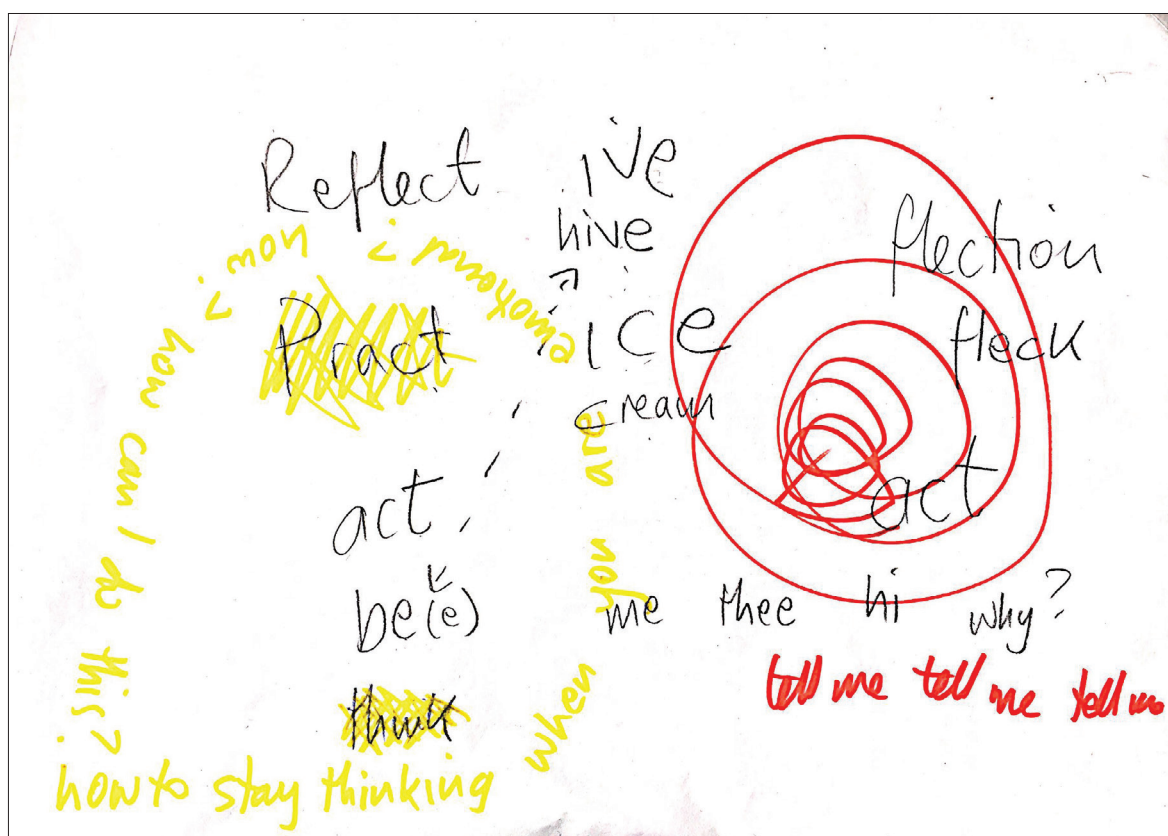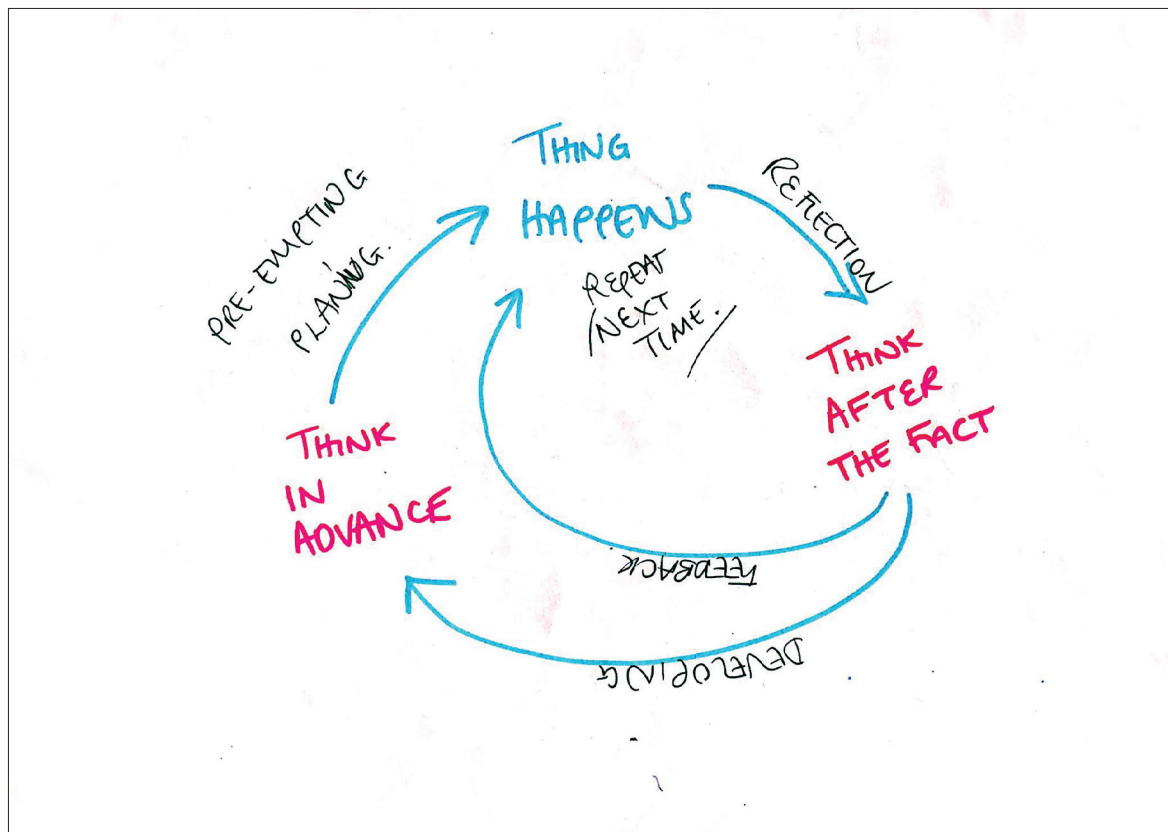
Figure 67.    Drawing by *Cara* (CS)

Figure 68.    Drawing by *Roz* (Research)
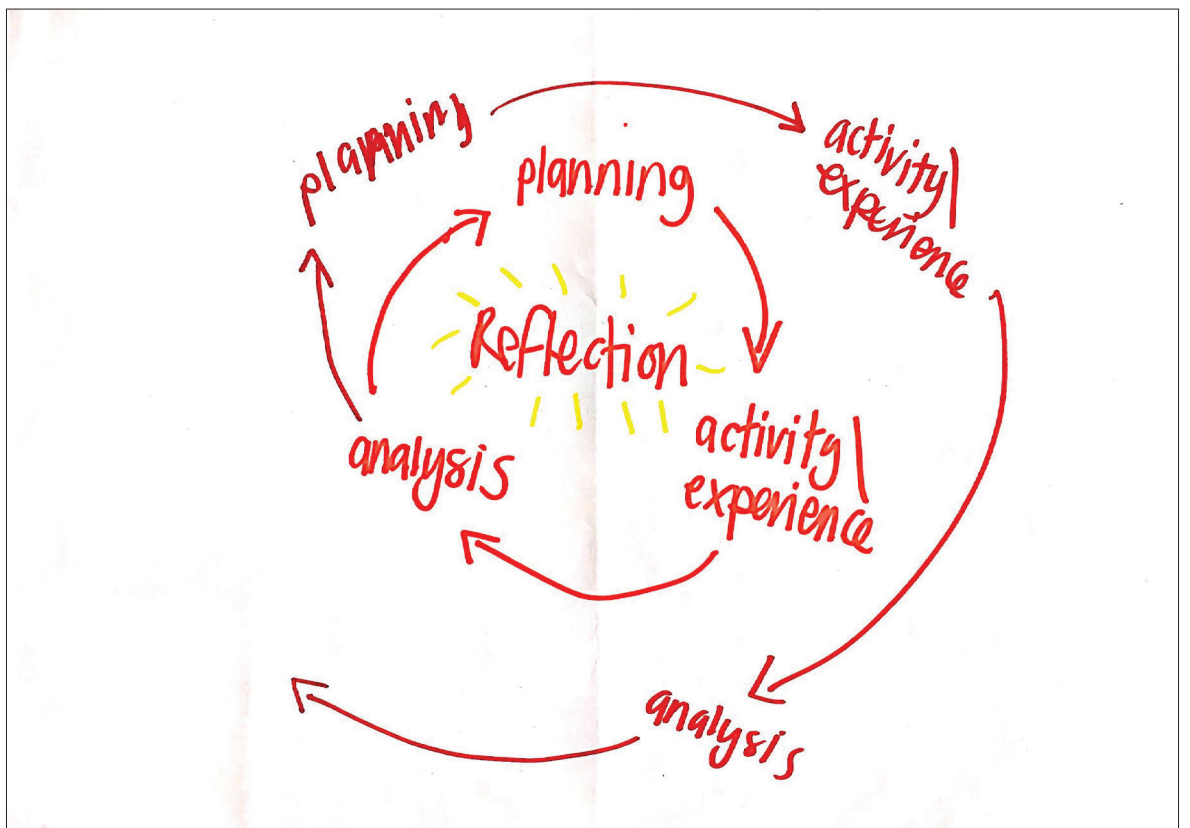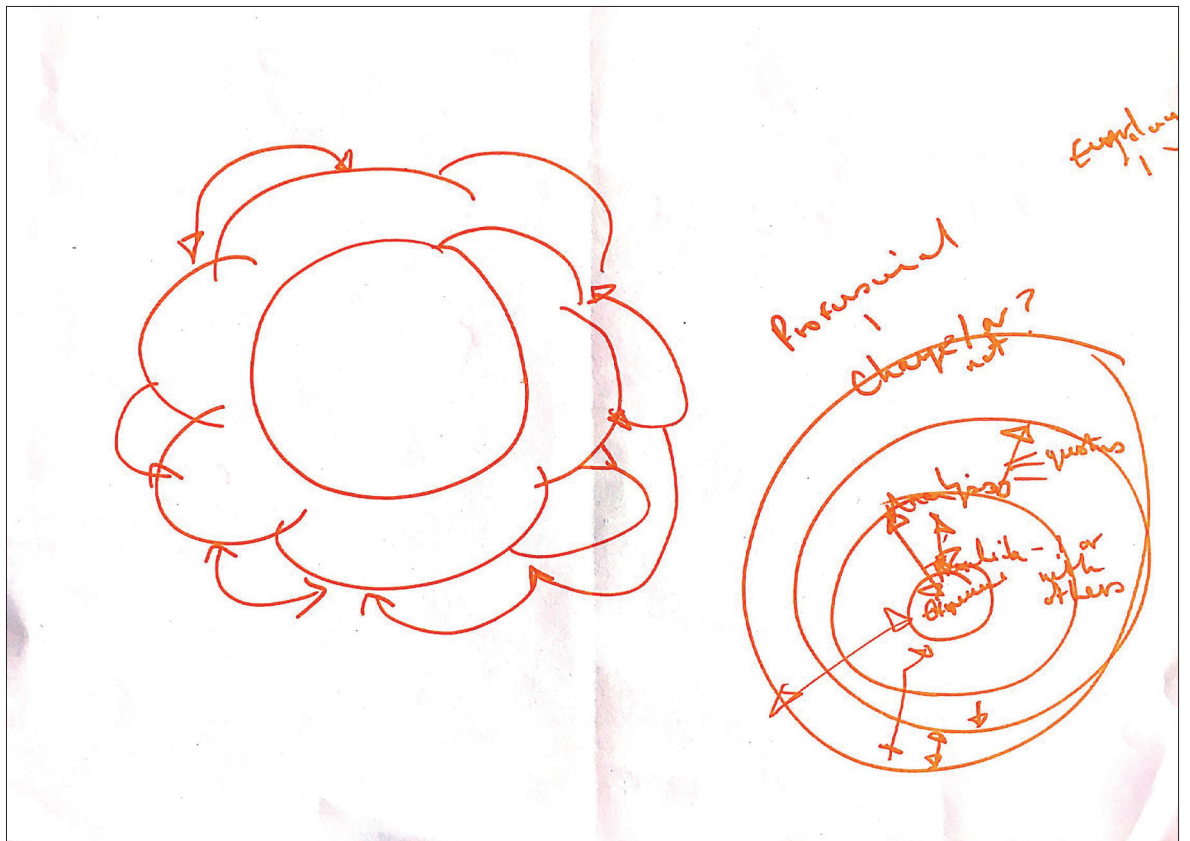
Figure 69.    Drawing 02 by *Sara* (Study Support)

Figure 70.    Drawing by *Flo* (Design).

'When you are that tutor who's going to be assessing the work, and you're working through your learning outcomes and all that, you know, I'll have to find a way to say, you know, when I go through reflection, and I would say, maybe refer to when, you know, like the 'so what, so what, what next' process? No, I always say that to students, so you've done your 'so's', you've not done your 'so what's' and you've got a little bit of 'what's next', so I try and help them to work it out, but I'm not dealing with what they're actually talking about. I'm just talking about the tool to reflect with'.

—

*Thea*

'Reflective practice almost brings into your kind of doing the conclusion for it, so that's then going to, maybe another body of work might flow from it'.

—

*Alma*

'I think every practitioner naturally, mindfully does it because it becomes part of their practice. Maybe unconsciously or subliminally'.

—

*Carl*

'I do like Moon's, because I think if we're talking to students, we're trying to develop them to be critical thinkers within a workplace [...] whereas Dewey's [...] about analysis and evaluation [...] the cyclical model of Kolb is quite straightforward [...] Schön, I can't remember it right, but I think it's reflection in action'.

—

*Sandra*

Figure 71.    Participants' extracts relating to diverse understandings of reflective practice.

Figure 43.  Drawing by *Alma* (GTA Design)
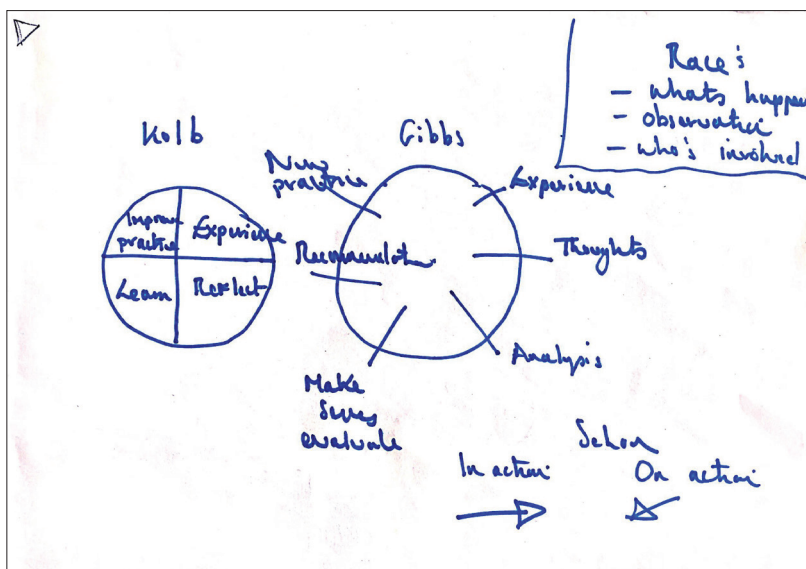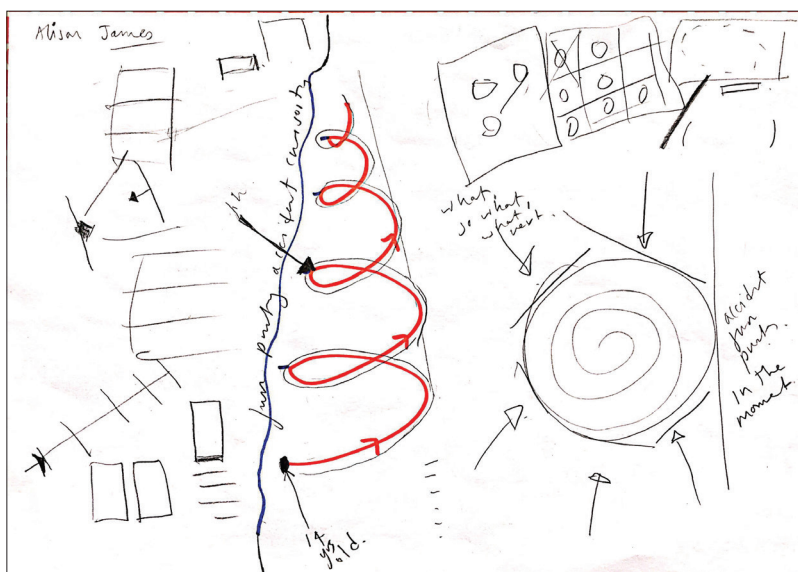
Figure 46.  Drawing by *Thea* (SL Design) Drawing

Figure 40.  01 by *Sara* (Study Support)

relationships (Raven and Textbook Studio, 2019a, 2019b; Rogers, 2008). Collectively, these benefits align with Schön's (1983) reflection-in-and-on-action model, professional practice theories, and all five epistemological stances (Kinsella, 2009). This analysis reinforces the critical role of visualisation in reflective practice, not only as a tool for individual insight but also as a medium for collaborative exploration and understanding within design education. These insights prompted a deeper examination of the participants' drawings.

## 5.8.2.1        The Visualisation Task

All participants engaged in the visualisation task, producing a drawing in response to the prompt to depict their understanding of reflective practice (Appendix 15). These drawings, created at the beginning of the interview and reviewed at the end, effectively facilitated reflection-in-and-on-action (Schön, 1983, 1987). This compliance refuted uncertainties raised by James (2007) that concerns for standards of drawing may be a deterrent to complete the task. Notably, the planning of the visualisation by the researcher also demonstrates reflection-for-action (Schön, 1975).

The visualisation task's success in eliciting reflective insights supports the argument by Rogers (2008) and Ali (2020) that visual methods can reveal aspects of practice that might remain hidden in verbal-only reflective practices. Fortuitously, drawing provided novel insights into individual and collective understandings of reflective practice, which may not be verbally expressed (James, 2007). For instance, rich insight gained from viewing imagery within this thesis document is hoped to facilitate engagement with the inherent discourses about reflective practice by engaging in that practice. The relationship of visuals with textual and verbal formats of communication are important (Ali, 2020; Clarke, 2007; Kress and Van Leeuwen, 2020), as a multimodality facilitating a meta-competency (Collins and Karsenti, 201). The drawings revealed common symbolic references like circles, spirals, pyramids, arrows and labels (Table 10).

These recurring motifs suggested a shared understanding of reflective practice as a cyclical and dynamic process across the department, aligning with the Creative, Academic, and Practising Practice themes. Circles and spirals emphasised the continuous nature of reflection, while arrows and pyramids implied active progression towards improvement. The use of visual language to elicit collective insights aligns with broader visual culture studies (Dyak et al., 2022), supporting the use of drawing to enhance reflective practice beyond design education.

This extension beyond normative practices, using drawing to understand reflective

| No. of changes | Change made |
| --- | --- |
| 1 | Interaction and collaboration |
| 2 | Varied cognitive aspects |
| 3 | Importance of preparation |
| 4 | Continuous practice |
| 5 | Interconnected and dynamic processes |
| 6 | Dialogue and other forms of communication |
| 7 | Awareness of emotions and self-assessment |
| 8 | Varied details linked to Design practice |
| 9 | Perspectives of others |

Table 11.        Summary of amendments to the drawings.

practice both individually and collectively, also aligns with the wide-ranging sources recommended by participants across the sample (Appendix 19 and 20). These include critical educational theories like Schön's (1983) and Freire's (2018) Pedagogy of the Oppressed, Cheng's 'Maxing out your triangle' (Afif, 2016), Csikszentmihalyi's (1988) Flow state, to Gauntlet's (2014) Lego Serious Play, alongside more distinctive visual sources. This wealth of inspiration underscores design's potential, using its key pedagogy (Sims and Shreeve, 2012) to enhance reflective practice and professional development across creative fields. The shared visual language further highlights a potential departmental focus on both reflection and collaboration.

Additionally, Raven and Textbook Studio's (2019a; 2019b) Drawing Practice demonstrated how visual methods at the International Association of Design Researchers (IASDR) Conference captured diverse expressions and tacit thoughts in design practice, reinforcing the broader applicability of drawing and reflective practice across educational, professional, and global contexts, as highlighted by the book produced and disseminated at the IASDR event (ibid). This broader applicability of drawing as a reflective tool is evident in the participants' drawings, where those teaching or supporting more theoretical subjects demonstrated a stronger alignment with renowned models of reflective practice than those focused on the practical aspects of design (Figure 67-70).

The commonality of spiral marks and colour choices were surprisingly similar, suggesting a potential for shared interdisciplinary insights and further investigation of visual representations of reflective practice.

## 5.8.2.2     Diverse Approaches to Reflective Practice

Notably, the participant's drawings also revealed academic divergences, in particular the theoretical aspects of reflective practice and varying roles and levels of teaching experience. These were also apparent in the participants' discourses and are shown first (Figure 71). The similarity between the drawings and the statement by the participants illuminates the effectiveness of visualisation as a tool to support understanding prior to, and as an adjunct to, discussion.

When discussing theoretical frameworks for reflective practice, Senior Lecturer *Thea* favoured Borton's (1970) 'What? So What? Now What?' model to provide a simple structure for student's reflections. However, she acknowledged the limitations of models as technical tools over emotional rationalisation, considering the university's promotion of endpoint, meritocratic reflection on assessment (Forsyth et al., 2015), which corresponds with the A priori analysis. *Thea's* illustration (Figure 46) reveals a sophisticated insight indicative of her seniority, and

'I do like the idea of precision and also precision of language, trying to get stuents to really use, use words carefully [...] the more you understand design is lagnauge and language is design, then you can really sort of start to say, this is a way that you can express yourself clearly about what you're trying to say'.
—
*Charlie*
LANGUAGE

'I mean just like this, having a chat you know, and meetings you know, that's really useful I know [...] and that's kind of, that's better than any kind of model'.
—
Isaac
TALK

'Rather than immediately thinking, Oh, I understand what you're saying, understanding what you're saying and really taking it a bit further, reflecting it back; repeat, just repeating a phrase that somebody's used so that they can notice what they're saying'.
—
*Roz*
LISTEN

'If you've done something, I would then say, okayt, describe it in three words [...] and then I'll say, okay, that objective is incomplete, pass it to the next person, then they have ti finish the voice of that object, and so it's about listening, hearing and reacting'.
—
*Carl*
LISTEN

'A lot of my reflective practice somes through, just putting my practice in front of people, talking to them and their questions, and me trying to explain what I do and why; that helps me articulate and think about why I'm doing it [...] I'm going to draw two people talking to each other down there because I think it, yeah, what I'm finding is that actually talking to people helps me reflect'.
—
George
TALK

'It's useful to bring it, to bring it in [reflective practice], to kind of flesh out that the critique they're getting from the academic staff isn't a personal assault, it's actually part of a broader context of their methodology and approach to working'.
—
*Fred*

'Everyone performs in a crit I think, even the people who are trying to input on things. It's a huge pressure on them. I mean, if I'm the one being crit'ed or if I'm the one crit'ing, you assume a certain role and I find that, even when I'm in my art studio, people find it hard to just say what they think immediately, cos they feel like they're expected to say something. Or they're thinking I need to say something really intelligent and understand this work straight away'.
—
*Greta*

'Sometimes there's a nervousness at the evinning [...] And maybe, it's like a vulnerability of it I put this out there, and I'm not 100% sure of it myself [...] and I don't want to like bare all maybe'.
—
*Tamina*

'It's, it's trusting my instincts, taking risks actually, saying something which you might not be quite sure is right, might lead you to somewhere else [...] I'm aware I have to be carefyl but also don't be too careful because you're not doing anybody any good to leave them where they are'.
—
*Roz*

Figure 72.        Participant extracts relating to Verbal Practice – Talking, Listening, Crit-ing.
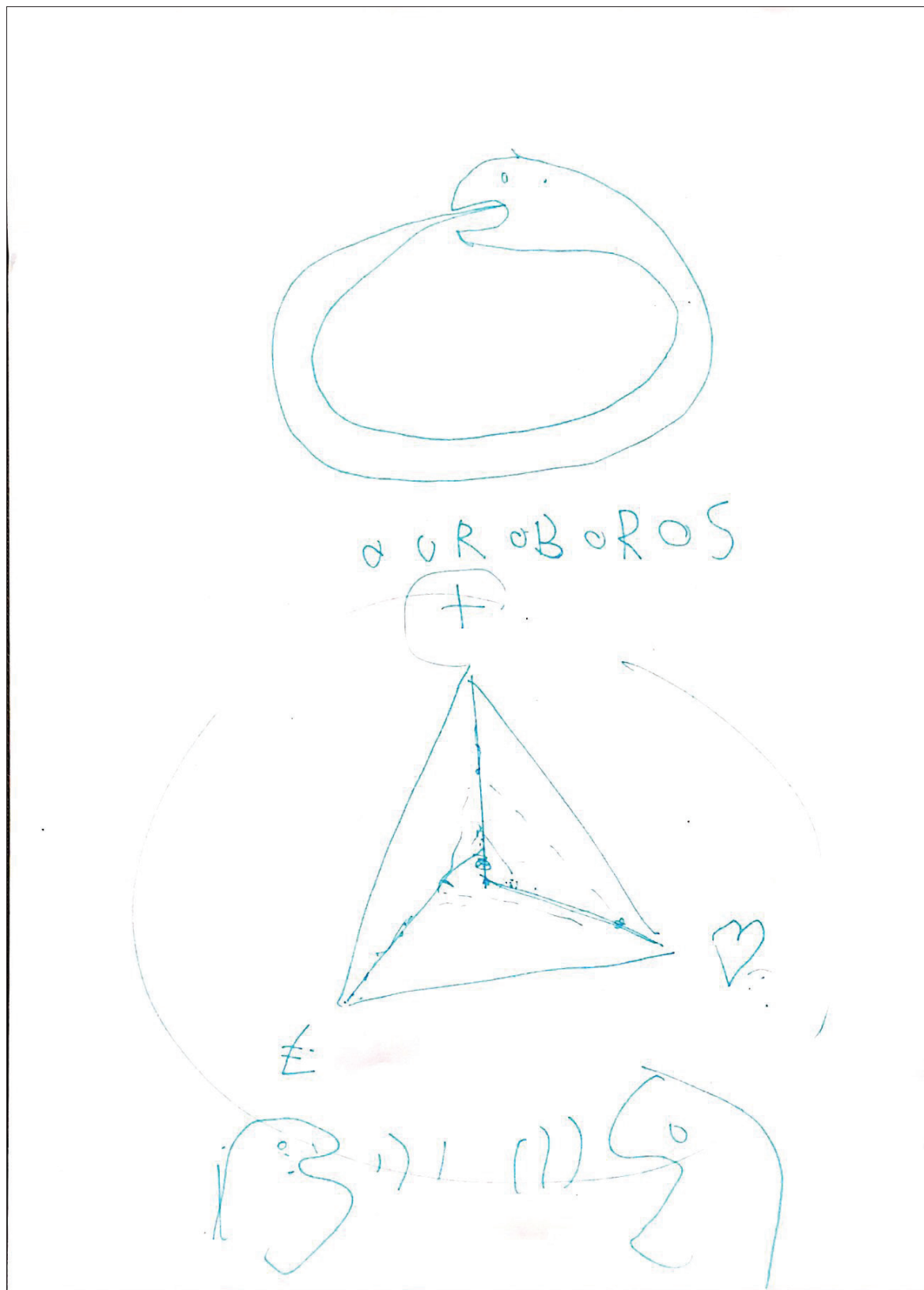
Figure 73.    Drawing by *George* (Design).

compassion for Amulya's (2004) excitement and immediate breakthroughs, which supports James' (2007) call for more emotive connections to be integrated into 'critical reflection. Although there appears to be a disconnection between mind-and-body dualism (Schön, 1983), conceding to a technical rationality approach, which resonates with the critique for Schön's model being limited (Thomson and Pascal, 2012). Accordingly, *Alma*, a GTA, corresponds to this doctrine, that a technical-rational approach can present as binary interpretation (Åman, Andersson and Hobday, 2017), as her verbal account and drawing can be aligned to the fixed model, to assist 'doing the conclusion for it [...] then going to, maybe another body work'. Whereas, *Alma*, presented procedural insights following the reflecting on-and-for-action model (Louden, 1991; Marshall, 2019), *Sandra*, from Study Support, advocated renowned models by 'Moon, Dewey, Kolb, and Schön' to provide clear structures for critical thinking.

These theoretical variances, between structured and intuitive experiential thinking are complex, revealed in the nuanced discussion. However, when considered visually, the differences become more apparent (Figures 46, 43 and 40, repeated in Sections 5.6.3 and 5.6.1 respectively).

The participants' discussions and drawings reflected their experience and role within the department, resonating with their understandings of reflective practice. *Thea*'s detailed, complex, and dynamic illustration mirrored her cultivated insights as an SL; *Alma* maintains a continuous insight depicted within a circle, yet the focus on end-point reflection and simplicity, mirrored in the breaks in the cycle, may relate to her status as a recent graduate and compliance with following guidance, such as that recommended by *Thea*; while *Sara*'s directed labelling and knowledge of multiple models indicates matching her role expectation, to provide guidance for various disciplines. These differences highlight the interplay between experience, role, and reflective practice, suggesting that individual approaches to reflection are shaped by both personal and professional contexts. The use of different models, such as those by Schön (1983), Kolb (1984), and Moon (2004), as referenced by the participants, (Appendix 19) underscores the diverse theoretical frameworks influencing these practices. This diversity in visual representations and theoretical preferences suggests avenues for further research into how these factors influence the development and articulation of reflective practice over time. Additionally, these insights could inform tailored support and professional development strategies within the department to better accommodate the varying reflective needs and practices of staff. Understanding the application and adaptation of different models in reflective practices may also contribute to more effective integration of these

CAN

'… We, we, we do, we sort of explicitly get them to reflect through, predominantly through writing'.
—
George

'I say to stuydents, keep a journal, and reflect on it […] throughout the year, and then when you get nearer to the deadline, […] it's just then about pulling it out and seeing what happenings there are'.
—
Flo

'… We would allow them to reflect in their own way, we do ask it to be written'.
—
Charlie

' I used to try and get them to clear their minds and get them to do just like a page of writing, I'd just say right, just off the top of your head, write how you're feeling'.
—
Thea

' So they just put down a page in a splurge, whatever's on their minds, without stopping to analyse, stopping the thinking. The idea is you keep writing all the time'.
—
Tamina

'… You keep writing and then after they've done that, I'll say read it back again […] underline any word that jump out at you as being relevant and useful'.
—
Roz

'I think, you kow, when you read something that's reflective, and they've reflected really well and it's written, it's just really nice and easy, isn't it?'
—
Uma

CAN'T

'… So I would tend to offer them a series of questions that they ask themselves, so they might write, I think the brief was write about an exhibition yoiu went to […] trying to veer them away from descriptive writing […] but it's difficult'.
—
Chloe

'… They are so protective of writing in a way that they would never be about their creative practice […] I don't know if it's just because they didn't come here to do CP […] but why do they not see writing as part of their practice?'
—
Cara

'I think staff can glean the blogs and be like, No, no, it's not. It's not great'.
—
Ida

'I think it's really insightful when they student gets it, they really get it. When they don't they don't […] They don't think in that way. They're not, they don't engagge with that method […] You know maybe it's the written thing […] the blogs are terrible; they're really unreflective and they don't really understand what reflection is'.
—
Thea

'… Me and my colleagues […] are just like tearing our hair out because we just feel like we've let the students down; […] we're reading the assignment work; […] and it's just like, I wish, I wish they hadn't spent the time trying to do it. You know, they haven't you know, they just haven't hit the mark at all […] If we were talking to each other, it wouldn't matter; we use the same word three times in a row, but on the page, when we're constantly self-editing, I think, I think that I can self-edit between my brain and my pen but…'
—
Uma

Figure 74.      Participant extracts relating to Written Practice – Students, there's those that can and those that can't.

frameworks into the department's reflective culture.

## 5.8.2.3 Reflection On-action of the Drawings

The majority of the participants amended their drawings after reflecting on their initial depiction. Table 11 provides a summary of these changes (see full details in Appendix 22). These amendments indicated that discussion, diverse thinking processes, and dynamic reflections became important after reflecting in-and-on-action (Schön, 1983; 1987). This aligns with findings by James (2007) and Rogers (2008), which indicated that visual methods could evolve through iterative reflection, offering deeper insights over time. This indicated that deeper engagement with the concept of reflective practice was facilitated by visualisation and discussion. The integration of visual methods with reflective practice was further supported by Ali's (2020) findings regarding the potential to engage criticality through visualisation, illustrating the effectiveness of these approaches in enhancing critical reflection and professional growth. This confirms the earlier finding regarding the need for appropriate time and nurturing space for reflection. This further highlights the role of dialogue, alongside visualisation, to assist reflective practice. It also emphasised the relevance of discussing design practice with fellow practitioners, as acknowledged in the concept of the 'crit' as a signature pedagogy in A&D (Sims and Shreeve, 2012).

Reflective practice was integral to the Design Department's ethos (A priori analysis, Section 5.2), with documentation and visualisation methods playing a crucial role. Participants' insights, drawings, and amendments, supported by Ali's (2020) study and other literature, emphasised the value of visual tools in making abstract concepts tangible and enhancing reflective practice, as highlighted in the Practising Practice theme. These methods fostered creativity and deeper thinking, potentially supporting critical reflection. The effectiveness of visualisation in identifying improvements and expressing tacit practice further reinforces its role in the department's approach to reflective practice, with dynamism in the drawings emerging as a key characteristic.

## 5.8.3 Verbal Practice – Talking, Listening, Crit-ing

The emphasis on discussing drawings of reflective practice led to a deeper exploration of verbal communication as a valuable tool for reflection in design. Talking, listening, critique, and the 'crit' are established signature pedagogies in A&D (Ball and Christensen, 2019; Sims and Shreeve, 2012). As James (2007) identified, 'I need to talk to people in order to reflect' was a robust finding

'So, every week, [...] In our own style, I tended to do mine on the computer, the other person would tend to just write theirs out as notes by hand, what we would always do, [...] on the page, [...] we would write, immediately after the session, our reflections'.
—
*Thea*

'I have a notebook. I've got a journal that I write in quite frequently, not as often as I'd like to, but I, I do, it's important to me'.
—
*Chloe*

'.This kind of idea that a REF-able output has to be, you know, a paper in a particular journal [...]. Whereas for practitioners, it's the thing that you've done that is the really important thing. [...] It doesn't need extra kind of writing up if you like, but I suppose the writing up is a reflective part to it'.
—
Isaac

'I tend to write things down quite a lot to think and then I review what I've written down'.
—
*Ann*

'I tend to write a lot, like, the basis of it comes from thought and writing. [...] I kind of, like having lots of notes and doodles and thinking through writing'.
—
*Connie*

'So, if I'm consciously thinking and taking time to be reflective, and want to learn something from doing that, I'll probably make notes [...] If it's in-action, I always try to record what it is that I've done [...] to ensure that I capture that because in-action is quite hard to remember [...] It's quite hard to capture it, so I always try and make notes'.
—
*Uma*

Figure 75.    Participant extracts relating to Written Practice – Staff.

amongst fashion staff and students. These terms and insights are reflected in Figure 72.

The plethora of verbalisation methods evidenced a multifaceted understanding of vocalising reflective practice, including necessary precision in language (*Charlie*) to voicing uncertain thoughts (*Roz*), which alluded to ambiguity, another A&D signature pedagogy, and the need to facilitate thinking critically about design issues (Vaughan et al., 2008; Hesseling, 2016; Sims and Shreeve, 2012; Lohiser and Puccio, 2018). This aligns with the broader literature that emphasised the role of verbal interaction in reflective practice, highlighting the importance of refining thoughts, gaining feedback, and facilitating deeper critical thinking.

Verbal interaction, such as discussions, meetings, and explaining one's practice to others, were valuable tools for refining thoughts. Active listening also played a crucial role, enabling the absorption of feedback and gaining other perspectives. Likewise, critiquing and 'crit-ing' provided opportunities for reciprocity within a supportive environment. These points were similarly articulated in the literature by Blair (2006), Blythman, et al. (2007) Oak (1998) and Orr (2005) collectively the endurance of these critical roles in enhancing reflective practice within design education.

However, challenges such as nervousness, vulnerability, and balancing risk-taking with deliberating during crits were noted, which further suggested varied levels of teaching experience influenced effective management within L&T settings (Cardoso, et al., 2014). These challenges highlighted the nuanced dynamics of verbal reflective practices, where emotional factors and experience levels can significantly impact the effectiveness of such interactions. Furthermore, despite the endorsements of verbalisation and in the literature, such as Blair (2006) and others, the value of visualisation to enhance reflective practice (discussed previously) and ongoing dichotomies between preferred uses of language and images (Berger, 1972; Kress, 2009; Rogers, 2008; Turner and Lin, 2023), provides a compelling argument for further research on multimodal methods of reflective practice. For instance, Turner and Lin's (2023) translanguaging and trans-semiotising, as contemporary concepts, offer valuable insights aligned with other multimodal research identified in the literature (Section 3.1.9) (e.g. Grocott, 2010; Passarinho, et al., 2013; Smith, 2022) highlight the need to explore how combining verbal and visual elements can more effectively support reflective practice. This underscores the potential for further research into multimodal approaches that integrate both language and visualisation for deeper reflective engagement.

Subsequently, *George*'s amendment to his drawing (Figure 73), adding people talking, also validates further research investigation due to him not first recognising
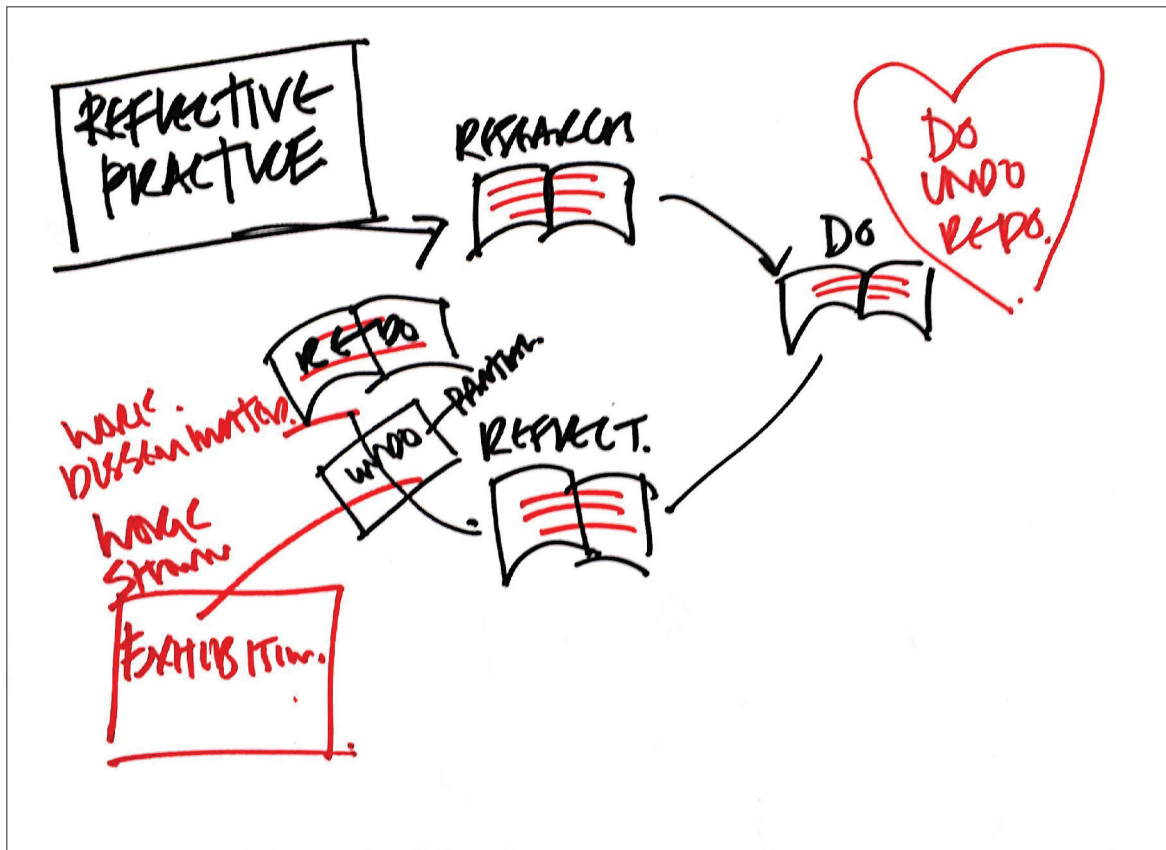
'I use notebooks to distill things. So,
I take things from, I go back through
notes, and I go through the, and I
have different notebooks for different
things. And I extract things from
notebook,s as I go back through them,
I highlight them, sort of reviewing,
so little processes and devices like
that; sometimes I go back through
notebooks and I might highlight
everything, and then in another I might
take key points out, and write them in
another notebook [laughs] but then I
end up with loads of notes; I end up
with loads of process, I don't mind that.
I quite enjoy that'.

Figure 76.       Drawing and extract by *Ann* (Design).

'They need to be told to talk to each other more about what they're doing […] I said to them, do you talk, because you're going off now, are you going to communicate with each other? […] She's like, yeah, yeah, I will do, but you think, you wonder whether they will'.
—
*Greta*

'So, they began to come together as u, they began to trust each other, they begna to be able to talk about their work, because it was more intimate, so there's a little more reflection there'.
—
*Chloe*

'I think it's collaborative, I honestly do, because I don't think I would feel the way that I feel about reflection and about my practice, if it wasn't for finding people that also felt the same way and creating a connection or community […] this is all of us together working out how we can move that forward or resolve that or whatever it is'.
—
*Tamina*

'It works quite well, in a group situation where it's like group therapy [laughter] I think we need it as staff as well. Yeah, you know, when you sit down and you kind of unpick as a group, what went well, and what didn't? […] Without accusations flying, there could be like […] they can you know, unpick things'.
—
*Flo*

'I think a mixture of people to get different opinions, I think that's where it works well, with staff identifying opportunities where theyre are shared interests to promote engagement'.
—
*Alma*

Figure 77.        Participant extracts relating to Group Practice.

that two-way communication was key to reflective practice.

This section identified a potential hierarchy of reflective practice methods in design, where verbal practices remain dominant (Schön, 1983; Greiman and Covington, 2007; Machost and Stains, 2023), although there is support for increasing recognition of visual and multimodal approaches, aligned with departmental cultures and diverse learner needs (Kress, 2009; Duncum, 2004). This challenges the primacy of verbal reflection, suggesting methods may align with specific contexts, presenting opportunities for tailored practice and research. Additionally, exploring beyond verbal and visual methods, textual approaches also emerge as a key mode of demonstrating reflective practice.

## 5.8.4 Written Practice

This section examines the significance of textual formats of reflective practice in L&T and professional design practices, exploring the role and application of written reflection in academic settings and professional contexts.

### 5.8.4.1 In L&T

While textual reflection was not a signature pedagogy in A&D (Sims and Shreeve, 2012), its prominence and value in other disciplines (Bolton and Delderfield, 2018) were recognised university-wide by Study Support services and in Design (Melles and Lockheart, 2012; Gelmez and Tüfek, 2022) and through teaching CS across all undergraduate levels of Design, warranting consideration within developing an understanding of reflective practice. Despite absence as a core pedagogy, textual reflection was often used to evidence reflective practice formally, aligning with broader educational practices (Moon, 2013; Boud, 2001) and Study Support material, such as workshops and podcasts (Appendix 8).

Notably, CS was not equally weighted within Design's curricula. These units, relating to theoretical knowledge, contributed 30-credits of study versus 90-credits of studio-practice units to compliment the annual 120-credits requirement per academic cycle to be undertaken across all UG programmes. This division could potentially relate to studio-based Design lecturers having lesser confidence for teaching theory. Moreover, Study Support was potentially less utilised by the department due to its focus on written work. Hence, the sample mirrored this department distribution (Appendix 19). However, despite this possible constraint, written reflection was the most common method of evidencing reflective practice, as noted in the comments representing the full sample (Figure 74), and in the

recommended sources to support understanding reflective practice.

Textual reflection was considered a 'predominant' method for demonstrating reflective practice (*George*), despite the creative ethos of the department, which was endorsed across Design, CS and *Nexus* programmes. Techniques like journaling (*Flo*), blogging (*Ida*) and structured prompts (*Chloe*; *Roz* and *Thea*) validated Moon's (2004, 2006, 2013) reflective writing exercises, although challenges were also recounted.

Constraints to written reflection included a bias towards description (*Chloe*), defensiveness in writing, perceptions of CS being disconnected from Design (*Cara*; *Ida*), and difficulties in expressing thoughts suitable for assessment, which led to frustration and concerns about not supporting students adequately (*Uma*). These challenges align with broader issues in the literature, such as the time-consuming nature of writing and concerns about authenticity, particularly in creative disciplines (Boud and Walker, 1998; Mair, 2012).

*Uma*'s frustration with not best supporting students' reflective outputs echoed the A priori findings (Appendix 14). It raised concerns about high standards in assignment briefs, potentially fostering fears of failure that discourage reflective practice. This resonated with *Tamina*, a recent graduate: '…the thing that we were most conscious of, as creative people, was getting it wrong.' Despite the availability of diverse theoretical and practical methods for support, feelings of lacking adequate guidance, particularly for those like *Uma* in *Valor*, may stem from psychological and social factors, such as autonomy and perceived relevance, aligning with Bourdieu and Foucault's theories (Murphy, 2022). The belief of insufficient support could also reflect personal insecurities with written reflection. Additionally, the perception of written reflection as less authentic or relevant in creative fields complicates its adoption, as noted by Doloughan (2002) in postgraduate L&T.

## 5.8.4.2        In Professional Practice

Doloughan's focus on higher-level learning emphasised the significance of written reflective practice in professional settings, as evident across the department (Figure 75). This contrasts with fewer mentions of other formats like visual and verbal modes, likely because the creative industry places less emphasis on formalised reflective practice compared to other sectors (Beckett-McInroy and Baba, 2022). However, the link between reflection and professional practice aligns closely with Schön's (1983) theory for professionals.

Digital and analogue writing emerged as key reflective methods outside L&T

Figure 53. Drawing by *Greta* (Design).

practice, aiding deeper understanding through regular documentation after activities, such as community workshop facilitation (*Thea*) and producing 'REF-able outputs' (*Isaac*). This supports Schön's (1983) reflection on-and-for-action, particularly in research practice, in combination with visual elements, as seen in the work of Smith (2022) and others (Section 4.7.2.3). Similarly, *Ann*'s drawing (Figure 76) depicted multiple notebooks integral to her design practice, highlighting how writing and reviewing support reflection. This resonates with how objects like stationery and routines, particularly for women (Tyler et al., 2022), connect textual reflective practice with navigating complex personal and professional identities (Graves, 2007).

While *Isaac* emphasised the visual aspect of design, noting, 'for practitioners, it's the thing that you have done that's important,' the role of written reflection was vital in communicating the value of visual portfolio submissions for the REF (UKRI, 2024). This suggests that while visual outcomes are central in design, written reflection plays a key role in formalising and communicating their impact, especially in academic evaluations like the REF. It underscores the dual importance of visual and textual methods in professional practice, where the ability to articulate creative work through writing is crucial (Power, 2017).

This emphasis on written reflection extended to students, who often struggle with it, likely due to staff pressure to ensure students meet graduate outcomes (HESA, 2024), another neoliberal measure. Concerns about the authenticity and effectiveness of written reflection, particularly in creative fields, were echoed by Mair (2012) and Doloughan (2002), questioning text's ability to capture the complexities of creative practice.

The reliance on textual reflection in design research aligns with the literature on reflective practice (Boud, 2001; Leigh, 2016; Moon, 2013) and Schön's (1983) reflection-on-action, underscoring the value of documenting thoughts and experiences to enhance reflection. However, it also suggests that while text is a valuable tool, it may need to be complemented by other reflective methods to fully capture the nuances of creative practice, as advocated by Doloughan (2002) and Bright (2012).

From considering mainly individual practices, the next section introduces more social aspects of reflective practice.

## 5.8.5       Group Practice

The focus of this content and continuing through the rest of this analysis, explores

'A photography series a student did, [...] they kept all of the material that they had produced. And the stuff that they didn't think was, was good enough. They formed into this kind of time, this timeline of their academic year, they kept comments on the back of the pictures, of like what it was it was it was a physical, it was a physical, basically big scrapbook [...] on the back she'd actually written what it was, when it was taken, how it was taken, and why it wasn't included in the final product. And at the end, there was you know, it was actually quite, quite powerful. Because it was this actually quite impressive, artistic statement by the end of it. And she had realised, you know, by the end of it, she seemed an awful lot more confident'.

—

*Steven*

'There's sketchbook work and illustration and reflection that way'.

—

*Chloe*

'They organise themselves on, on how they organise their notebook,s and maybe how they speak to themselves in the notebook, with drawings and scribbles, postcards or leaflets from exhibitions, bits of thread and samples they've cut up; it could be hair or food, grass or petals. On the blogs they'll include links to Ti Tok or clips from Youtube or Insta. So, the type of voice that they might use, so they're having conversations with themselves in the notebook'.

—

*Ann*

'You know, he was able to tell me how he changed and come along and some of the things that he did'.

—

*Sandra*

'Think about our relationship to materials-making, digital, but also about living virtual and analogue lives, and how do we live our lives? How do we experience things and [...] the interesting thing about, about digital making and about the materiality of digital making, was the disconnect between the maker and the process. And it's out digital experience of the world and the fact that people are becoming more convinced that virtual reality and digital living is an alternative or a valid alternative to an experienced life'.

—

*Charlie*

'I had this idea for a karaoke-based thing. And I was like right, just learn how to make karaoke video on permier. So, I was having loads of fun, playing with lyrics and sort of adding song bits [...] because often the making is writing things in my iPhone notes, that becomes something later, I was, I did this performance that was basically came all out of my iPhone notes'.

—

*Greta*

Figure 78.        Participants' extracts relating to Multimodal Practice.

the relationship of group and pluralistic practices to reflective practice in design (Figure 77). Notably, from this section onwards, there are fewer examples of participants' drawings. This may be because these aspects were not foremost in their minds when tasked with creating a drawing of reflective practice, possibly introducing a bias towards individual perspectives. Nonetheless, the analysis remains rich with participants' voiced experiences.

## 5.8.5.1 Importance and Benefits of Group Collaboration

The importance of group collaboration was emphasised across the participants' experiences. *Charlie* endorsed the atelier method of teaching 'vertically' across study levels, a common architectural practice (Hall and Barker, 2010) linked to Schön's (1983) reflection-in-action, drawn from observing studio practice. This collaborative ethos also reflected *Nexus*' partnership approach aligning the department's curriculum with reflective practice.

*Fred* highlighted the positive impact of structured, experiential group learning in *Nexus* crits, where talking, visualising work-in-progress, and feedback emphasised the multimodal nature of design education, further supporting praxis and reflective practice (Barrett, 2007). Participants across various departmental subjects echoed James' (2007) endorsement of multimodal methods in fashion education, extending its relevance to design education more broadly.

Group reflection fosters critical thinking (Kolb, 1984), communication (Ashford, 2011), and teamwork (Gibson, 2003), aligning with educational goals such as those in *Nexus* learning outcomes (LOs) and CS group L&T (Appendix 9; Section 4.6.1; Table 7). This highlights the benefits of partnership working, supporting graduate outcomes (HESA, 2024), and working in future creative industry roles (Design Council, 2018; Holley, 2017). Group interactions build trust and diverse perspectives, aligning with Tuckman and Jensen's (1977) team development model: forming, storming, norming, and performing. Kaygan (2023) noted that 'norming' correlates with self-reflection during design projects, enhancing membership and reflective practice. In support of this agency, *Tamina* shared that working with like-minded peers bolstered her reflective and creative practices, supporting Wenger's (1998) community of practice relationship to reflective practice, discussed in Chapter 2. Theoretical Frameworks, as a social theory potentially linked to reflective practice. Additionally, *Flo* likened group work to therapy, suggesting that 'norming' helps resolve academic tensions, such as those posed by neoliberal constraints (Zohar, 2023). This approval led to further contemplation for positive aspects of reflective practice, although these were balanced with some negative points.

## 5.8.5.2 Holistic and Practical Challenges

*Greta*'s drawing (Figure 53, Section 5.6.8), repeated again for clarity, illustrated the holistic nature of group practice supporting reflective practice, both formally and informally throughout L&T and professional practice, including online, face-to-face, and in social settings. Collaboration was integral, enabling connections, shared experiences, and collective efforts to improve practice.

However, while acknowledging the benefits of group practice in L&T contexts, limitations in professional practice were observed,

> '...even in my art studio, people find it hard to just say what they think immediately, because they feel like they're expected to say something' (*Greta*).

This viewpoint, contrasting with the reference to L&T, underscored the complexity of reflective practice, suggesting that while interaction can be beneficial, the dynamics and expectations within professional environments can inhibit reflective practice (Boud, Keogh and Walker, 1985; Schön, 1983).

Notably, a potential bias towards viewing group work as positively contributing to reflective practice may stem from participants' desire to present favourably to the researcher due to co-working statuses, which could inhibit disclosing known complexities of group work (Brown, 2013). Furthermore, the optimistic outlook in L&T contrasted with earlier discussions suggesting reflective practice was better understood in research and professional contexts than in L&T. However, greater comprehension of reflective practice in professional contexts could lead to more effectively mitigating associated anxieties and supporting students, and fed into the next section.

## 5.8.5.3 Need for Reflection Opportunities and Curriculum Alignment

*Alma* and *Flo* both highlighted the need for group reflection opportunities for staff, with *Alma* noting the lack of such opportunities and *Flo* advocating for more reflective group work. This supports Shreeves' (2009) recommendation that group reflection benefits new, part-time, and existing staff by reinforcing academic identity and performativity.

The disconnections in group practice, between L&T and professional contexts, better understanding of reflective practice in professional settings, and the need

for more staff reflection, align with Schön's (1983, 1987) focus on individual reflection, potentially overlooking the socio-cultural aspects of group reflection (Webster, 2008). However, group discussions can challenge individual assumptions (Venkatesh and Ma, 2021), leading to richer learning experiences and fostering intercultural competencies (Guillén-Yparrea and Ramírez-Montoya, 2023), in line with Hesseling's (2016) design dogma for reflective practice.

Overall, group practice enhanced reflective practice in L&T by promoting communication, teamwork, and shared learning. The atelier model and structured experiential learning were effective, although challenges in professional practice sometimes hindered reflection. This contrast emphasises the importance of Schön's (1983) theory in both educational and professional contexts. Ensuring alignment with educational goals and Graduate Outcomes (HESA, 2024) is key to resolving these tensions, leading to the final section: Multimodal Practice, which is also vital for sustaining reflective practice in design education.

## 5.8.6    Multimodal Practice

Multimodalities are increasingly important for understanding and communicating diverse modes of expression in education, especially in design. Falk-Ross and Linder's (2024) study endorsed the use of multimodal reflective practices by design lecturers, emphasising the interaction between visual and textual modalities. While writing is a default pedagogy across many disciplines (Chick et al., 2012), visualisation plays a central role in A&D (Orr and Shreeve, 2019). However, textual reflection remains predominant, even in A&D as an overtly visual discipline (Orr and Shreeve, 2019). Examining participants' experiences across L&T, Study Support, and professional practice (Figure 78) deepens the understanding of how design educators use multimodalities in creative and reflective practice, with key implications for pedagogy and professional development.

### 5.8.6.1        Principal Formats

Fundamental multimodal practices in design included text and image integration, both analogue and digitally. Examples included scrapbooking, note-taking, and annotating photographs, as stated by *Ann* (Design) detailing:

> '...drawings and scribbles, postcards or leaflets from exhibitions, bits of thread, and samples they've cut up; it could be hair, food, grass, or petals. On their blogs, they include links to TikTok or clips from YouTube or Insta.'

These practices demonstrate the sophisticated relationships between visual and textual modes in design education. They align with embodiment, material culture, and mass communication, which underscore the significance of objects and images in shaping cultural narratives and individual identity (Miller, 1987). This also resonates with transmediation theory (Siegel, 1995) that is akin to the earlier discussion regarding semitism with the Vygotsky principal (Peck et al. cited by Kinsella, 2009) emphasises the shift from one sign system to another, enhancing conceptual understanding and critical thinking (Thomas, 2018). This perspective supports the view that multimodal reflective practices are crucial for fully comprehending the synchronicity of creative and reflective practices.

However, the intertwined nature of these practices can lead to confusion or misunderstanding, especially regarding terms like 'critical reflection' (A priori analysis; Academic Practice theme). This highlights the need for further research and clarification of terminology and definitions.

Furthermore, as multimodal practices evolve, the integration of digital and physical elements has gained importance, particularly since the COVID-19 pandemic., as a merge between these two realms creating new experiences and interactions (Švec and Madleňák, 2017). Mechan et al. (2023), highlight the rise of 'phygital' frameworks in fashion HE, blending traditional craftsmanship with digital innovation. This shift towards sustainable, hybrid methodologies offers new opportunities for reflective practice that align with current educational and industry needs.

## 5.8.6.2    Advanced Formats

On a more sophisticated level, *Ann*'s reference (made earlier) to varied social media platforms, such as 'blogs' to 'Insta' (Figure 76, Section 5.8.5.3), demonstrated that contemporary worldwide phenomena resonate within L&T and Study Support (Salehan and Negahban, 2013). Surpassing Falk-Ross and Linder's (2024) lauding of graphic novels as a novel approach to reflective practice in teacher training, multimodality is integral to contemporary culture (Kress, 2009), with both analogue and digital formats being essential to reflective practice universally. Grocott (2010) and Birello and Pujola Font (2020) highlight the importance of blogging and using personal or representational images to support critical reflection. This fluidity in multimodal reflective practice was evident in *Greta*'s professional practice work, involving the using varied component parts that contributed an end-point performance, seamlessly transitioning from iPhone notes to a karaoke-based performance, song lyrics, and moving imagery to explore complex ideas. Thomas (2018) underscores the efficacy of combining text and image to explore complex themes, such as inequality and opposition, which highlights the importance

of critical thinking in design (Lee-Smith, 2019; Schoormann et al., 2023). Consequently, these findings may extend beyond design to other disciplines that involve argument and debate, such as politics and law.

The balance between traditional methods and AI in reflective practice also extends to the emerging 'phygital' modalities, where digital and physical elements are increasingly intertwined. Mechan et al. (2023) emphasise the growing prevalence of these hybrid practices in fashion, underscoring their relevance across design disciplines and reflective practice.

## 5.8.6.3 Digital Formats

Further reflecting on digital aspects, *Charlie*'s acknowledgment of the 'disconnect between the maker and the process' in digital versus analogue practices emphasises the need to consider both virtual and real-world elements in contemporary reflective practice. This underscores the importance of integrating phygital aspects into multimodal reflection to fully understand and express contemporary circumstances.

## 5.8.6.4 Implications of Artificial Intelligence (AI)

While the current study did not consider AI, increasing association with reflective practice across all fields (Dias, 2002; Beckett-McInroy and Baba, 2022; Passmore et al., 2024) necessitates the need for the design department to adapt. As AI integration becomes more prevalent, peer assessment, which has been shown to foster innovative teaching practices (Cutroni and Paldino, 2023), can be a valuable tool for navigating this evolving landscape

To enhance peer assessment in creative programmes, the researcher investigated the integration of speech-to-text software (Otter.ai, 2024) with a chatbot to generate haikus and images during an academic development session (Appendix 23). This approach was inspired by Harvey and Oliver's (2024) use of haikus to foster critical reflection among social work students. Extending this work, the researcher used AI to generate haikus about reflective practice, thereby offering an expedient, engaging, and memorable method to deepen academics' understanding of critical reflective practices. By developing a more profound comprehension of teaching terminologies, such as 'critical reflection' (A priori analysis; Academic Practice) (Mohammed et al., 2022; James, 2007), this method, although not initially applied within creative education by Harvery and Oliver, has relevance across various HE disciplines, in which teaching portfolios are often compared to artists' (Doolittle, 1994). Moreover, as Cutroni and Paldino (2023) suggest, peer assessment can encourage self-

**Research**

My experience suggests curatorial practice always entails an aspect of collaboration.
Collaboration is especially inherent when working within a team, for example to produce an exhibition, working alongside artists and even building the relationship between display and audience.

The opportunity to work with The Pankhurst Centre for this project gave both an insight into curating an exhibition and publication in a professional context. It also gave insight into an important historical and political moment of the suffragette movement. As the project was representing a public museum this meant that there was added pressure to create something of a high standard. The experience of working to external factors within a large group will be beneficial to developing my own place within the curatorial practice.

Collaboration

Figure. 1,
Group photo from the V.I.P opening of Deeds Not Words. Photo courtesy of The Pankhurst Centre.

Fig.1

2

**Research**

Part of our group research entailed visiting exhibitions of similar themes as The Pankhurst Centre and the suffragette movement. The exhibition coincides with the centenary of the women's right to vote in the UK - Manchester celebrated its feminist legacy with the Wonder Women Festival 2018.

Manchester Art Gallery featured a retrospective of Annie Swynnerton: Painting Light and Hope. The exhibition highlighted Annie's support and involvement with women's suffrage, displaying a portrait of Dame Millicent Fawcett alongside Women's Social and Political Union branded memorabilia. To see late 19th early 20th century portraits of women by a female artist feels like rarity. However, the galleries interpretation of how pioneering her feminist paintings were felt a bit of a reach. While there are subtle elements of realistic skin, the nudes still portray white hairless women conforming to European beauty ideals. Also at Manchester art Gallery was a display of Sylvia Pankhurst's Working Women. The display of the working class by the anti-fascist campaigner showed the progression of portraying the everyday lives of women in suffragette practice.

Research visits

Figure. 2,
Sylvia Pankhurst *Working Women* exhibition at Manchester Art Gallery.

Figure. 3,
Art School Illustrated publication research.

Fig.2

'Art's power depends on its receiver's way of perception'.

Fig.3

3

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Colour Pschologoy

*Haute Couture Creation - Paris, France 1991*

The Color Psychology of Pink

Pink is essentially a light red and is usually associated with love and romance.
Pink is thought to have a calming effect.
One shade known as "drunk-tank pink" is sometimes used in prisons to calm inmates. Sports teams sometimes paint the opposing teams locker room pink to keep the players passive and less energetic.
While pink's calming effect has been demonstrated, researchers of color psychology have found that this effect only occurs during the initial exposure to the color. When used in prisons, inmates often become even more agitated once they become accustomed to the color.
Pink is often described as a feminine color, perhaps largely due to associations people form during early childhood. 'Girls toys' are usually pink and purple, while 'boys toys' are often red, yellow, green, or blue.
Since the color is so strongly associated with femininity, people sometimes associate the color with qualities that are often thought of as feminine, such as softness, kindness, nurturing, and compassion.

On Cardin's official website there is a whole page dedicated to the colour yellow as well as the colour pink.
Each page shows Cardins work through the years that have used these two vibrant colours.

https://pierrecardin.com/%22In+Yellow%22-cl18-en / https://pierrecardin.com/%22In+Pink%22-cl17-en

---

Do you feel anxious in a yellow room? Does the color blue make you feel calm and relaxed? Artists and interior designers have long believed that color can dramatically affect moods, feelings, and emotions.

"Colors, like features, follow the changes of the emotions."

Pablo Picasso

*Haute Couture Creation Dress Coat - Paris, France 1992*

The Color Psychology of Yellow

Warmth: Yellow is a bright that is often described as cheery and warm.
Difficult to read: Yellow is also the most fatiguing to the eye due to the high amount of light that is reflected. Using yellow as a background on paper or computer monitors can lead to eyestrain or vision loss in extreme cases.
Frustration: Yellow can also create feelings of frustration and anger. While it is considered a cheerful color, people are more likely to lose their tempers in yellow rooms and babies tend to cry more in yellow rooms.
Energetic: Yellow can also increase the metabolism.
Attention-grabbing: Since yellow is the most visible color, it is also the most attention-getting color. Yellow can be used in small amount to draw notice, such as on traffic sign or advertisements.
https://www.verywellmind.com/color-psychology-2795824

The colour yellow reflects a large amount of light and is often used in situations and products intended to create a sense of excitement or energy.

"Fully saturated yellow is only good for brief exposure, because its stimulating effect is so powerful that it can build up emotional energy quite quickly. I know that I would probably go nuts in a house with LEGO yellow walls. Though it should be noted that a less saturated yellow, such as that found in whipped vegetable spread (faux butter) is mildly pleasing and cheery." - TheOddStrange

"How wonderful yellow is. It stands for the sun."
-Vincent Van Gogh

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Figure 79.  Multimodal reflective practice: Nexus RESEARCH 01. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.

Figure 80.  Multimodal reflective practice: Nexus RESEARCH 02. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.

Once I was happy with my story board I picked out a couple of double page spreads which where the last spread and one of the main character on the bus. I did colouring pencil experiments for both and they both came out very differently. For the last spread I focused on framing the scene by using a silhouette of the dog and trees forming a frame for the sunset, I was happy with the outcome but it was too early in the project to know if I wanted to take it further. The second spread I did of the dog on the bus was initially just had blocks of colour which looked dull. To try and overcome this I added another layer of pencil which was a dark indigo and a dark cadmium yellow. Using these colour I started to think about what time of the day it was in my scene which became a challenge in communicating that. I used the indigo for shadowing and the yellow for the highlights and the sun light. Using this simple method brought life to the drawing and gave it atmosphere.



From this I then experimented with gouache to try and give the colour more of an impact. I began with the basic colouring, with no shadows and highlights as I added them in with colouring pencil in the same method as the last. This created a nice effect but I still wasn't happy with the colour. So, I tried it again using brighter colours. After doing this I discovered

that the first attempt is better than the second as the brighter colours do not communicate the time of day well as they were too bright which indicated that it was earlier on in the day. Over all looking at this technique in general I don't think it would take it any further as the material is to bright and harsh and is more difficult to create the effect I want. Using this material was difficult as I couldn't get the detail that I wanted, it's difficult to get layering that a wanted as they are opaque.  Also, when using the gouache, I painted on to water colour paper which was fine until I would put on the pencil layer which didn't agree to the pencils as the colour sat awkwardly on top giving it an unnatural look.

When talking and presenting my work in tutorials one thing that was motioned was that there was not enough detail, especially in the bus scene. Which I then researched and found out how the objects actually looked and using that as a starting point rather than making it up.  One of the things I research was the bus seats. I noticed that during them times the bus seats had more detail then I thought and each seat sat two people. I noticed that they had patterns and more stitching. I took that information and made two different versions of seats. One being mainly just a pattern. This greatly improved the piece giving it more detail made is more appealing to the eye and elongating the seats gave more of a sense of a 1920s bus rather than a school coach. The next piece again I made the chairs double, I added detailing to the fabric but this time I added 'padding' to the chair which made it look thicker. By doing this it made me think more when drawing as I had to think about how the light would illuminate the chairs with all its folds, and drawing/ colouring this was tedious. Adding this detail impacted the drawing as I was being more precious about it and with that I lost the texture of the colouring pencils which now makes the piece look uninteresting and too smooth. The sunlight on the chairs looks cold which doesn't give the effect that I want. Whereas in the first piece it had more orange than yellow which gave it a more warmth, more of a welcoming appearance and gives it a stronger impression of the time of day. Appearance wise the second attempts chair is thicker compared to the first and I think it looks much better as its more

Through capturing this compatible still image, I was then able to break it down to think about how I could begin to make it into moving image as we can see in *figure 7*. By breaking my ideas down and visualising moving image frame-by-frame I am able to see what would work even as still images to ensure that the animation is constantly engaging the viewer. Furthermore, it builds a basic framework on timing and placement in stop motion in a way that still allows me some flexibility whilst filming.



Figure 81.    Multimodal reflective practice: Nexus EXPERIMENTATION 01. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.

Figure 82.    Multimodal reflective practice: Nexus EXPERIMENTATION 02. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.

Final Exhibtion
Manchester Art Gallery

## Evaluation.

I feel that our final exhibition was effective in answering our given brief as well as achieving our personal objectives as a group. We wanted to create an immersive environment in which people could interact with. We placed an inflatable chair in the centre of our installation to encourage people to get involved. Throughout the evening of our exhibition several people chose to sit in the chair and immerse themselves within our installation and watch our fashion film that we had projected. I feel as a group we worked well in creating a multi-disciplinary piece of work. As a graphic designer, I took the images from our shoot and created a handout that would explain to the public what out exhibition space was trying to achieve and give them information on our concept as well as the psychological effects of the colour yellow. Throughout the evening many people took these hand-outs with them which made me feel we had met our personally aim of making our work interactive.

In reflection, I feel we could have worked better as a group, despite all getting along. I found it hard to organise to meet up to do work with my group members and felt more strain towards the end of the project. This however, may have been due to India being ill and not being able to contribute work. Our original concept was based around the textiles pieces she intended to make so when she was unable to create them, it put a lot of stress on us to recreate texture through other means in a short space of time, but still maintain our concept of creating an immersive environment in which people could interact. As a graphic design student, I also found it daunting choosing a different Unit X brief. I was looking forward to collaborating with people from different courses and wanted to challenge myself, however, I found myself very lost towards the end of the unit. I was very out of my comfort zone to the point where I felt I did not know what I was doing. When group members did not show up I was unsure of how I could contribute to our ideas due to being from a different course. I did enjoy the brief but felt it was extremely open, being a graphic designer student, I prefer and work better on more stricter briefs, so this unit was definitely a challenge for me. I feel our final outcome met all of the briefs requirements and we managed to work well together at the end of the unit despite losing a group member. As a whole I feel this unit has been a learning experience and I have gained a lot of knowledge from it. I enjoyed holding a shoot with fashion art direction students, which is something I have never done before but always wanted to do. I was very pleased with the hand-out that I designed for the exhibition which Martha helped with printing. I had never created something for an actual event before, so this was very new for me. I am also pleased with our exhibition space in response to the brief at Manchester Art Gallery. I feel I learnt a lot about professionalism by displaying our work at such a prestige gallery. I enjoyed being part of something that was so well received by the public, not just other student and tutors. Overall, I was very happy with our exhibition despite having mixed feelings through the process and feel I have learnt a lot from the experience.

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## Reflection

**Exhibition Process**

The development stage began with the title of the exhibition. It was important to create a strong connection with the suffragette movement but one which was not overtly about the suffragettes. Emmeline Pankhurst's call for action "deeds not words" particularly stood out from the initial research. It was open enough to be interpreted with our theme of art's involvement in contemporary political action. By researching the suffragette movements through the Pankhurst Centre and Manchester Art Gallery I was able to get a broader understanding of the representation that was missed 100 years ago, which we wanted to include now.

To explain the exhibition theme appropriately, I sought advice by getting in contact with a lecturer who specialises in feminism and postcolonialism. My intention was to get a better understanding of issues around intersectional discourse when writing the open call and the exhibition text to make sure that they related to the overarching theme. Getting advice from an objective source and subject matter expert from outside the project gave me the reassurance that I was making use of the appropriate information available to me. This experience instilled the importance of being assertive through asking questions in a situation I am unsure about.

Figure. 16,
View of exhibition text and artist statements.

We orginaly planned on putting the artist statements on the other side of the false wall in vinyl lettering. However, this would have caused issues with the amount of text we had to put up and take back down. Instead we decided to make a simple hand out, placed on discrete hooks below the text for visitors to take.

Fig.16

14

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## Reflection

**Personal reflection**

I enjoyed taking on a curatorial role and working independently towards a practice based project. Towards the end I came to understand the importance of delegating tasks within the group and not taking on more than my share to create a productive environment. We worked as a team, using our specialised skills to contribute to the install. After a floor plan had been devised the exhibition came together quickly as we began to receive the artworks.

Putting together a well-received exhibition and being trusted by The Pankhurst centre to collaborate has been an enriching experience for my personal practice. The subject of political and social activism around the exhibition has become a point of interest for me. Socially engaging art is something that I am keen to explore further in my developing practice and contextual research.

Figure. 17,
Arrangement of work by Kirsty Appleton before hanging.

Fig.17

Figure. 18,
Install of the first artworks.

Fig.18

15

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Figure 83.    Multimodal reflective practice: Nexus REFLECTION 01. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.
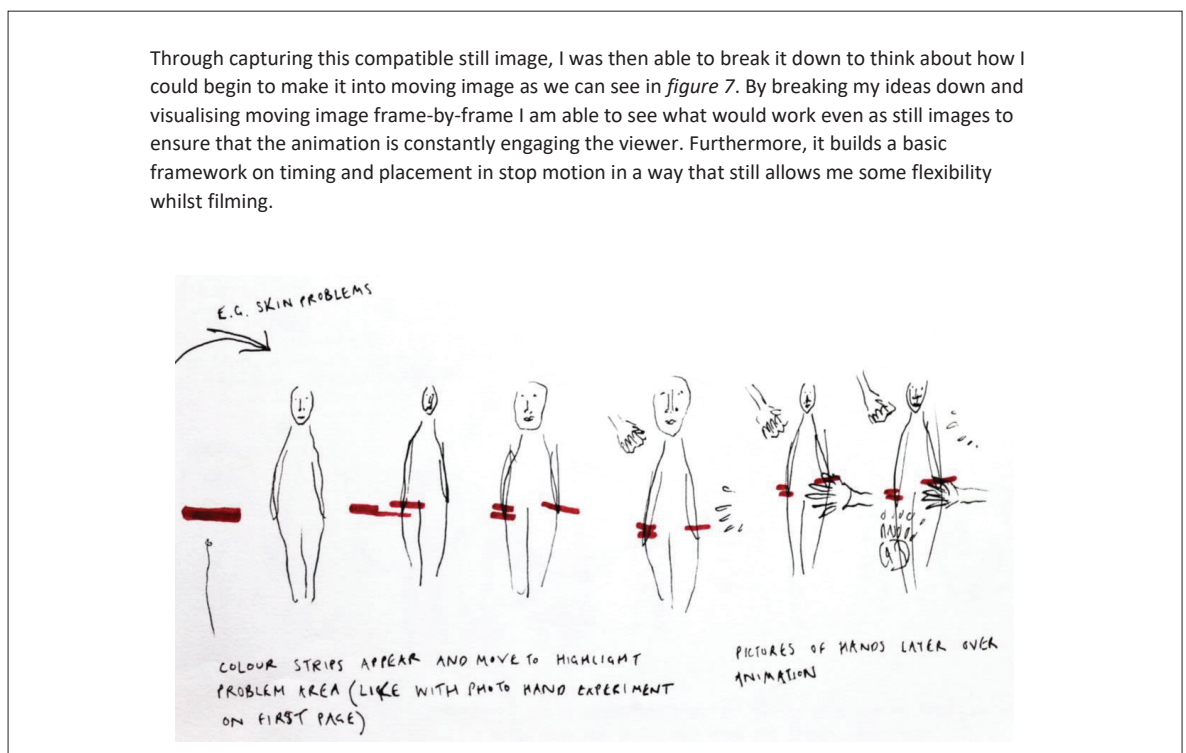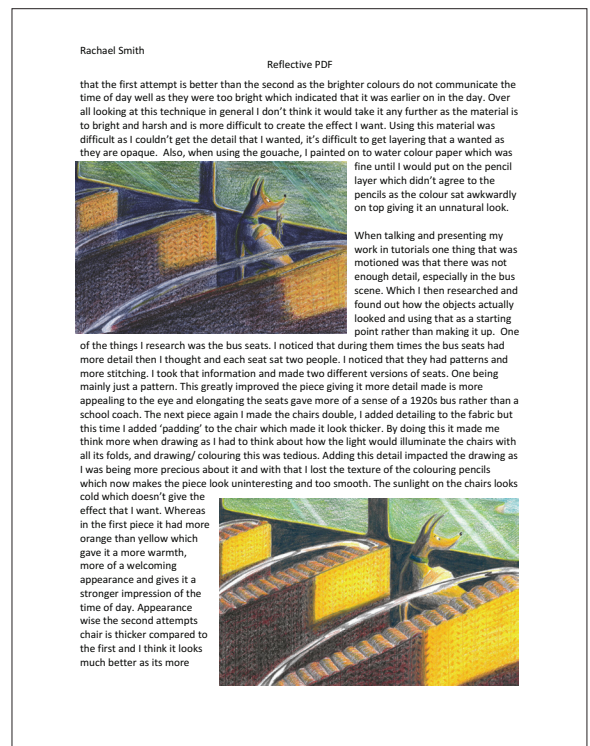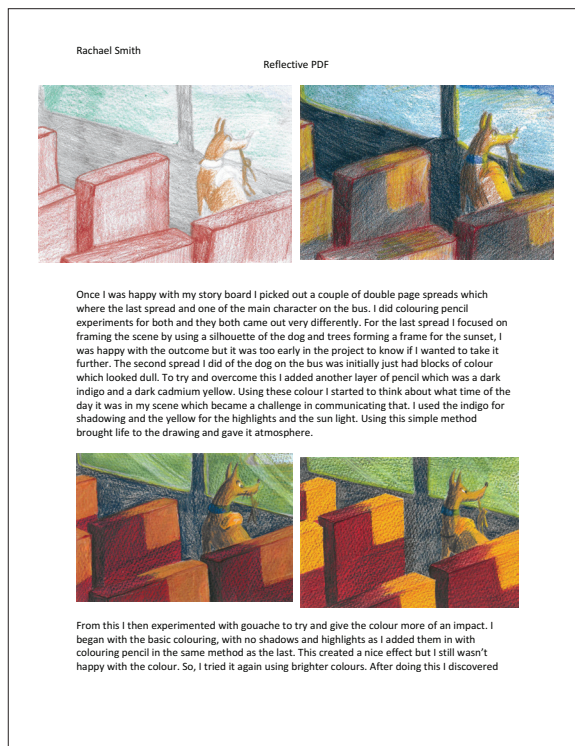
Figure 84.    Multimodal reflective practice: Nexus REFLECTION 02. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.

figure 3

## Luo Yang

In 2007, Luo Yang photographed women from her own generation post 80's, documenting their change into adulthood. She wanted to show a realsitic insight into how these women's lives were adapting, in the series titled "Girls". In 2019 she created another series titled "Youth", looking at the younger generation in the same way, but broadened her subjects from just women, to people expressing their gender fluidity. She photographs people in an intimate, vulnerable way but this allows them to connect with the viewer and creates powerful stories through the imagery. Through her subjects she also explores stigmas around femininity, looking at women that don't fit into the Chinese mainstream,

and creating a less polished, raw insight into the lives of the youth. I am inspired by everything that Yang explores within her photography, and also how she uses setting to create the atmosphere of the images. These images have a dreamy quality, and a softness that reflects the vulnerability of the subjects. I love how the syting is honest and adds to the genuine nature of these images, whilst still reflecting the subjects personality and times they were photographed in. I can understand why some people may view this as unimportant to the fashion industry however, realistic documentations of peoples lives and how this correlates to what they wear is something I am very interested in.

figure 4 (left)

## "The end is nigh" photography by David Simms, styling and creative direction by Alistair McKimm

figure 5

Within this editorial shoot McKimm explored the theme of a dystopian society and how we might dress in these times. Although the models are styled in brands such as Rick Owens, Marc Jacobs, Comme De Garcons and Alexander McQueen, this shoot is solely focused on storytelling and creative freedom. The styling aswell as the setting and use of black and white photography create such a strong story.

I am inspired by how McKimm combined all these elements to create such a strong concept. The use of environment particularly influences the atmosphere of these images and I love the shots where the model isn't even neccaserily the focus, but just blends into the trees like in this image (left). He is using his creativity in fashion and this photoshoot to warn us of what we might face while also romanticising it in beautiful imagery.

figure 6

## TYLER MITCHELL

Tyler Mitchell is a Brooklyn based photographer, recognisably known for being the first black man to shoot a cover of American Vogue. As a teenager growing up in the height of Tumblr's domain, like most he used the platform as a way to be inspired. Mitchel became increasingly aware of the type of images being circulated on the platform which would often picture young white models in a sensual and idyllic way ultimately showcasing this sense of freedom and carefree happiness. With constant exposure to these images, a noticable awareness of the lack of POC was evident. As an ongoing response, Mitchell work primarily focuses on showcasing Black Utopia.

One of my favourite series is 'Boys of Walthamstow'. The collection of images itself presents us with a re-defining of stereotypes associated with an area in east London, essentially re-imaging and allowing for a new representation filled with optimism. I admire how closely he works with the narrative of identity throughout his work, consciously making effort to present visible inclusion. His artistic style also has a balance between portraying things in a soft outlook through lighting and depth of field, whilst forming powerful and evocative images with rich and intense colour pallets particularly apparent within his editorial work.

## PETRA COLLINS

Photographer and Director, Petra Collins' work explores narratives of femininity within modern context and self discovery. I was first exposed to Collin's work by the series 'Fairytales'. Within this series alongside model Alexa Demi, they explored folklore stories both familiar to them incorporating an erotic twist. After further research into her work, I was further intrigued by her videography and still from music videos, coming to find she had also worked with Selena Gomez for 'Bad Liar' and 'Fetish'. From this I was becoming more aware of Collin's 'nastalgical haze' in which her photos encapsulate. I was particularly drawn to her stills from Lil Yatchy's 'keep sailing' video as I particularly admired the way it looked so soft and natural. There is no feeling of forced acting for the camera as the shots all have this candid look about them, to me they make simple mundanities look so normal but in a very beautiful way which I would like to experiment with in my own work. Collins is also known for primarily shooting in film, which suggests why her photos have this modern yet retro aesthetic about them, I too would like to experiment with using analogue methods throughout my own work or even means of editing that allow for this type of nostalgic aesthetic.

Figure 85. Multimodal reflective practice: Contextual Studies CS01. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.

Figure 86. Multimodal reflective practice: Contextual Studies CS02. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.
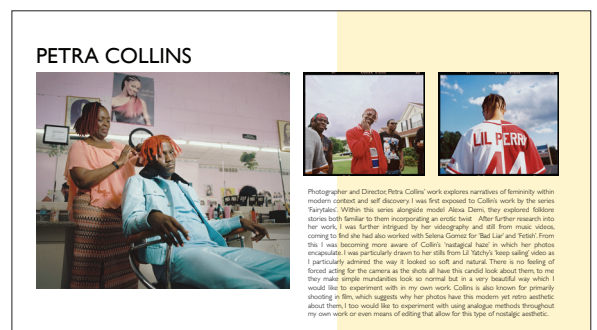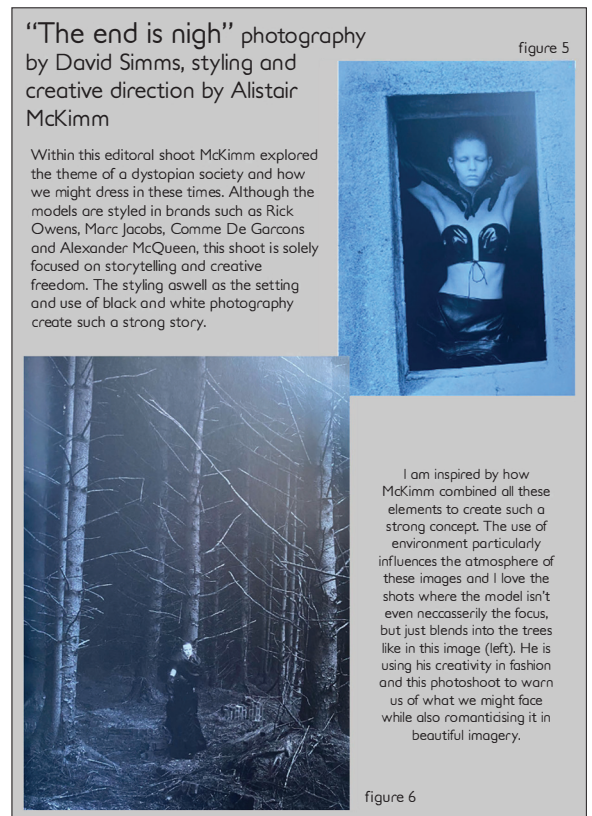
## appendix

initial refelctions on the theme of insight using the Kipling method, looking at House Train to Italy 1991 by Tony Davies

who - subjects are anyone and everyone, audience is anyone and everyone

where - this book pictures people on the train but in general: streets, public places, outside, in homes, places tht are relevant to the subject and inform the image

what - images of life happening, moments captured in still

why - provides a more personal insight into peoples lives, therefore they are more relatable, has more character and energy, also provides a genuine insight into styles/cultural influences at the time

when - these were pictured in 1991, photos from any era give an authentic representation of the time

how - catching people off guard, in their element, maybe not knowing they are being photographed makes it more genuine
how does it inspire me? - more connection between the work and the viewer through relatability and reality of the images.

## Critical refelction on fashion film "Thinkin home" using Gibbs refelctive cycle

describe - documentary style, boys in their home town
feelings - I enjoyed the cinematography, felt it was slightly too long/slow paced
evaluation - I liked how the clothing is worn naturally/realistically, made it more personal
analysis/ relation to my practice - I like the documentary style portrayal of clothing
condusion - making something more personal can give it more impact
action plan - look further into Wales Bonner

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Figure 87.    Multimodal reflective practice: Contextual Studies CS01 — Use of Reflective Models. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.

Figure 88.    Multimodal reflective practice: Contextual Studies CS02. Student work recommended by study participants as an example of reflective practice. Reproduced with permission from the student, with consent to uphold anonymity.

reflection, which is vital for professional development, particularly as AI-driven tools continue to shape educational practices.

## 5.8.6.5 Multimodal Applications Across Disciplines

Further considering phygital creative practices (Mechan et al., 2023) and returning to analogue multimodal formats, peer assessment and reflective practice can be further enhanced using drawing and talking. Building on Rogers' (2008) research, replacing speech with drawing to elicit tacit thoughts that developed personal and professional relationships in public settings, this method can be adapted to support peer assessment. This approach aligns with Schön's (1983; 1987) model and theory of reflecting in-and-on-action for professionals and extends Bowers et al. (2022) use of reflective dialogues to enhance the Design faculty planning. Additionally, there is an opportunity to introduce this as a supervision tool, common in disciplines such as nursing (Edgar et al., 2023) and other 'helping' professions (Davys and Beddoe, 2010), but currently underutilised in A&D. Similar to Davys and Beddoe's (2010) collective approach to providing supervision across service-based professions, multimodal reflective practices, such as drawing and talking, could be extended to support academic development in design and the creative arts. This approach advocates using multiple discipline-specific techniques (Chick et al., 2012) to enhance reflective practice. For instance, acting out and recording scenarios in performing arts or using photographs and moving images in communication and film programmes. These examples illustrate the versatility of multimodal approaches and the potential to enhance reflective practice across various disciplines.

## 5.8.6.6 Reflective Practice Exemplars

By examining principal and advanced formats of multimodal reflective practice, participants' recommendations of best practice were assessed. This approach replaced the previous analytical structure, which focused on voiced experiences and selected drawings. Initially, visual data was used to illustrate tacit thoughts linked to voiced experiences and analysed for departmental insights (see Visualising Practice). However, this methodology was not directly applicable to multimodality, as the primary emphasis on visual and tacit dimensions required the consideration of other creative outcomes. Notably, the integration of tacit knowledge in these practices highlights the challenge in capturing the extent of staff and students' understanding, as tacit insights often remain unarticulated (Polanyi, 1967; Hadjimichael and Tsoukas, 2019).

The collective approach, using drawing as a research method, emerged as a

powerful tool, revealing hidden thoughts and providing distinct tacit insights into reflective practice. This is aligned with connoisseurship (Neidderer, 2007), where an advanced, often implicit, understanding of creative processes informs practice, although may be difficult to fully articulate. This method has value understanding and explicating tacit knowledge, offering a deeper comprehension of reflective practice and enhancing the development of departmental perspectives.

The work identified as exemplary included student outcomes for summative assessment from the cross-disciplinary unit *Nexus*, as a 'Reflective Document,' and from Contextual Studies (CS) as a 'portfolio document' for the 'Critical Reflection' unit. Each had structured guidance although it lacked references to reflective practices, within the course materials, such as the briefs and reading lists (Appendix 13; 24; A priori analysis). These findings were reviewed individually, followed by a synthesised discussion (also see Appendix 25-26) for greater detail of *Nexus* and CS examples).

## 5.8.6.6.1     Nexus

Overall, multimodal reflective practice was evident across all sections of the *Nexus* unit Reflective Document submissions. The key sources identified in the earlier analysis (see Figure 78, Section 5.8.6.4: 'Participants' extracts of multimodal reflective practice'), resonated with this coursework, supporting Boess' (2016) call for further exploration of multimodal methods in A&D and James' (2007) advocacy for non-textual methods for critical reflection in fashion.

## 5.8.6.6.1.1     Research

Aligning with the *Nexus* guidance for 'Research,' (Appendix 12) each example showed strong visual and personalised components (Figures 79-80), validating Birello and Pujolà Font's (2020) emphasis that these individualised aspects enhanced reflective practice. This stage demonstrated various sources of secondary research material integrated into the research process, supporting Siegel's (1995) transmediation theory by shifting between text and imagery to enhance understanding. Furthermore, implicit knowledge and understanding was demonstrated by connoisseurship (Neidderer, 2007), suggesting that while reflective practice may lack explicit articulation, students' exhibited an intuitive grasp of their practice.

## 5.8.6.6.1.2     Experimentation

The 'Experimentation' stage of the *Nexus* Reflective Document also highlighted

Figure 89.    Stock Response — A Sensitive Response to Stock Imagery, from Made in Translation exhibition, The Portico Library (2021). Image © Lee Saylaby. Reproduced with permission from the photographer.

multimodal reflective practice, particularly in combining different media to explore complex themes. This allowed testing and refinement of ideas, further demonstrating the importance of a multimodal approach in capturing the iterative nature of the design process (Figure 81-82: *Nexus* EXPERIMENTATION 01 and 02). These iterative processes likely relate to tacit knowledge; where the students intuitively navigate and refine ideas without necessarily explicitly articulating every step (Polanyi, 1966).

This process reflected Hong and Choi's (2011) model, which highlights the timing, objects, and levels of reflective thinking in design problem-solving. The students appeared to engage in reflection throughout the design process, integrating visual and textual elements to aid refining work and overcoming challenges. This connection illuminated the tacit aspect of design thinking (Schoormann et al., 2023) and the importance of reflective practice in effective design practice.

## 5.8.6.6.1.3    Reflection

The 'reflection' stage of the Reflective Document provided insight into the synthesis of research and experimentation. This similarly combined visual and textual elements (Figure 83-84. *Nexus* REFLECTION). While both examples integrated design and reflective practices from earlier stages, resonating with Schön's (1983; 1987) concept of reflecting in-and-on-action, gaps in critical textual reflection were evident. This deficiency may align to challenges identified by James (2007), whereby reflective practice was often taught implicitly, resulting in inconsistent levels of criticality among students. This deficiency may stem from insufficient guidance on engaging in critical analysis and the lack of theoretical underpinning (A priori analysis; Academic Practice). Consequently, Thomas' (2018) emphasis on critical reflection through multimodal methods appeared underutilised.

## 5.8.6.6.2    Contextual Studies (CS)

The CS exemplars, similar to the *Nexus* unit student work, demonstrated engagement with multimodal reflective practice, (Figure 85. CS01; Figure 86. CS02) showing clear associations between images and text. Although there are varying degrees of integration. For example, CS01 demonstrated an awareness of structured reflective tools: the Kipling Method (Creating Minds, 2002-2015) and Gibbs' reflective cycle (1988), and criticality was evidenced through textual annotations that aligned with figure and image references and a bibliography (Figure 87, Appendix and Bibliography: CS01) (also see Appendix 27a for enlarged image). The use of reflective models placed in the student's appendix yet not integrated into the

coursework content suggested probable teaching instruction occurred promoting engagement that was not fully embraced. This inconsistency in acknowledging yet not applying reflective practice highlighted the difficulty in teaching and assessing connoisseurship and tacit knowledge (Neidderer 2007). However, similar to the *Nexus* examples, structured reflection was absent from the assignment brief (A priori analysis), indicating that while reflective practice was taught, it may not be consistently applied by staff or adopted by students. However, evidence of criticality resonated with *Charlie*'s endorsement:

> 'It's the depth [...] it's the range of references [...], it's the complexity of their thinking [...] to develop a new thought, to put things together [...] that that's good reflection'

This suggested several points, that staff had clear differences in understanding and teaching criticality, and critical reflection, and that while *Nexus*' examples lacked critical annotation, the varied research methods and sophisticated range of experimentation endorsed implicit tacit knowledge to generate new ideas, aligning further with design thinking (Schoormann et al, 2023).

In contrast, CS02, while also showing engagement in multimodal reflection, did not explicitly employ structured reflective tools within the assignment submission, despite potentially receiving the same L&T delivery as CS01. This suggested the student either chose not to incorporate these frameworks or applied them less visibly. This variability in students' interpretation and application of reflective practice instruction reflected the challenge also observed in *Nexus*.

The integration of visual and textual elements in CS02 also aligned with the approaches seen in *Nexus*, supporting Siegel's (1995) transmediation theory. Similar to CS01, there was an extensive bibliography (Figure 88. Bibliography: CS02) (Appendix 27b) lending support for Thomas' (2018) claim of multimodal methods supporting critical reflection.

### 5.8.6.7        Synthesis and Implications of Multimodal Practice

The analysis of *Nexus* and CS exemplars highlights the potential of multimodal creative practices to both demonstrate and enhance reflective practices within the department. However, it also revealed inconsistencies in students' applications of these practices. These discrepancies suggest a need for clearer communication and a more explicit integration of reflective practice frameworks into L&T, particularly in alignment with the concept of connoisseurship (Neidderer, 2007) and the challenges associated with teaching and assessing reflective practice, as iterated

by *Uma*'s frustration in letting the student's down by not offering adequate support. Notably, *Uma* was discussing *Valor* assessment, although given this assignment did have a LO linked to reflection (Appendix 10), it was assumed that lacking overall guidance for any assessment of reflective practice was challenging. This concern corresponded with earlier findings that emphasised the importance of having consistent teaching and assessment practices across the programme (A priori analysis). Peer assessment could play a key role in facilitating shared practice development and addressing the need for a social-cultural context in reflective practices, as suggested by Schön (1987). The analysis also found parallels with concepts from Irwin's (2013) 'a/r/tography,' Attenburrow's (2012) Design Decision Trail, and Passarinho et al (2013) exploration of e-portfolios. These approaches align with the high standards observed in *Nexus* submissions, reinforcing the professional readiness of the work produced.

Multimodal practices are essential in engaging both educators and students by integrating text, imagery, and digital tools. These practices offer a comprehensive approach to reflection that aligns with contemporary design education. However, the lack of rigour in applying reflective models and theories raises concerns about their effectiveness when not grounded in established frameworks.

In conclusion, while multimodal reflective practices are integral to design education, their impact could be enhanced by addressing gaps in rigour. Grounding reflective practices in established models and theories, while being mindful of the inherent tacit knowledge that may not always be easily articulated, will support consistent application and reinforce the overall quality and effectiveness of reflective practice within the department. Emphasising rigour in teaching and assessment will better equip students and educators to engage in meaningful reflection, ultimately leading to a more critically engaged design education environment. This analysis led into the final theme of this study, Expanded Practice, exploring the broader implications and sustainability of reflective practices in design education.

## 5.9 Expanded Practice

This final theme investigated the nuanced characteristics of reflective practice considering complementary practices: embodied, tacit, emotional and resilient. These expanded notions highlight the intricacies of Design staff participant understandings of reflective practice in HE L&T contexts. This culminating analysis is first paralleled by Stevenson's (2022) call for radical educational transformation, particularly the emphasis on critically engaging with power dynamics and dismantling authority in educational contexts (as discussed in Chapter 4, Methodology). These sentiments were echoed widely across varied HE

'I think, by the time you're leaving, by the time of doing loads and loads of projects, you're doing it tacitly, anyway, [...] I wasnt to try and formalise it and make it much more explicity. Or actually, I think we're constantly reflecting but we don't finish the reflection, because we don't act on it. So that's the problem'.

—

*Ida*

'It's quite tacit, you don't necessarily overtly think about it or see it in evidence'.

—

*Idris*

'Reflection is, I guess it is, I guess it is important. But again, it's quite tacit, you don't necessarily overly think about it or see it in evidence, but there is that kind of, you [...] If it's tacit, it's just there, isn't it? It, it doesn't matter if it's complicated or not? It exists and it's there [...] I thinkthere is tacitness to, so everything isn't there? You know, to a lot of things, a lot of things that are unspoken'.

—

*Flo*

'For all makers, the process is the creative process. So a potter, when he's throwing a pot, is creating through the physical act of throwing the pot. He isn't, he might have an abstract idea about a kind of pot he's throwing but he's, he's making minute, tangible decisions, tacit decisions'.

—

*Charlie*

'Reflection is a kind of tacit, less conscious process err that's, that's, that's where conclusions are not explicity drawn [...] I think, reflective practice implies a degree of kind of conscious decisions to go through a process'.

—

*Steven*

Figure 90.    Participant extracts relating to Tacit Practice – Explicit.

contexts, such as in Bonnell's Readership in Wilful Amateurism (Foster 2020), on the expanded fashion digital platform (Onopatmee, 2019), through the participants' voiced experiences as non-conformists (Sections 5.6, Academic Practice) and in Schön's (1983) proclamation for ambiguous artistry as professionalism. Furthermore, this reflected the researcher's reflexivity, drawing from an expansive epistemology shaped by diverse qualifications and experiences in fashion, design, and occupational therapy, contributing to a broad understanding of reflective practice in A&D education and professional practice. This holistic, versatile worldview was echoed in a collaborative exhibition (The Portico Library, 2019) including a pairing between Raven and Cooper; Cooper's (Kettle and Moss, 2017, pp.23-24) description of this union, whereby the work produced was characterised by them as 'structured and shapeless […] It is not always about the language. It is learning how to look.' (Figure 89).

This understanding was further underpinned by ontological insights from occupational science, which recognise the sociocultural and physical influences on habituation (Hocking, 2021). This integration underscores the significance of reflective practice within creative education and professional contexts.

The evolutionary potential of a critical pedagogy for fashion (Stevenson, 2022) similarly resonates with design education (Galdon and Hall, 2019). Regarding reflective practice, the dichotomies highlighted between critical and reflective practices in the A priori analysis, situate this discourse appropriately within the thesis research. Stevenson's (2022) advocacy for exploring the interrelationships between culture and politics reinforce contemporary alignment with hierarchical empirical and theoretical calls for developing critical and reflective approaches in fashion (James, 2007) and design (Ali, 2020; Hesseling, 2016; Lee-Smith, 2019; Lohiser and Puccio, 2018), wider disciplines (Bleakley, 1999; Dumitru, 2019; Mohammed et al., 2022; Šarić and Šteh, 2017), to a Study Support tutor participant:

> '…there's an implicit tension between what I would take to be good critical pedagogy and reflective practice and the ways in which managerial structures expect academics to behave' (*Steven*).

*Steven*'s acknowledgment of the implicit tensions within critical and reflective practice, and academic behaviour (Whitchurch and Gordon, 2010) underscored the relevance of the nuanced 'practices' discussed in this final theme, and supports the inclusion of Study Support staff, as 'non-academic' (Caldwell, 2024) personnel in this investigation of understanding reflective practice within a department.

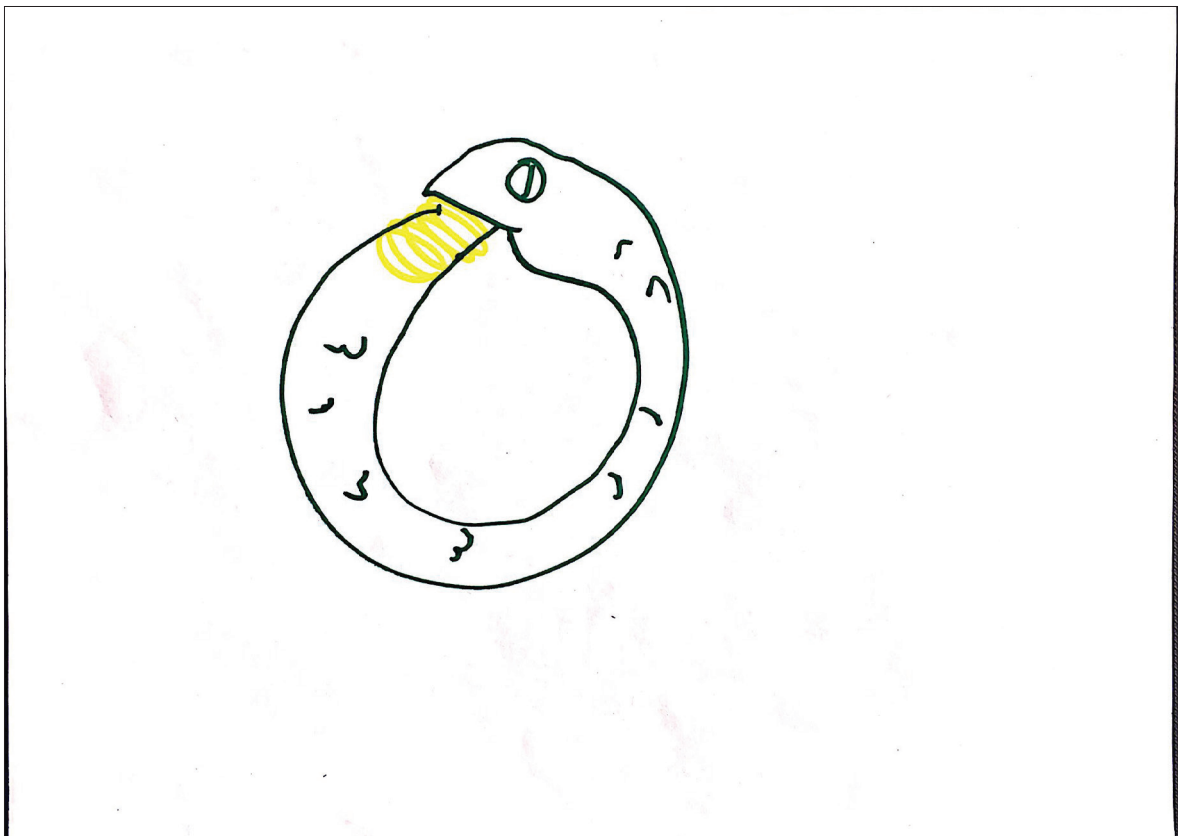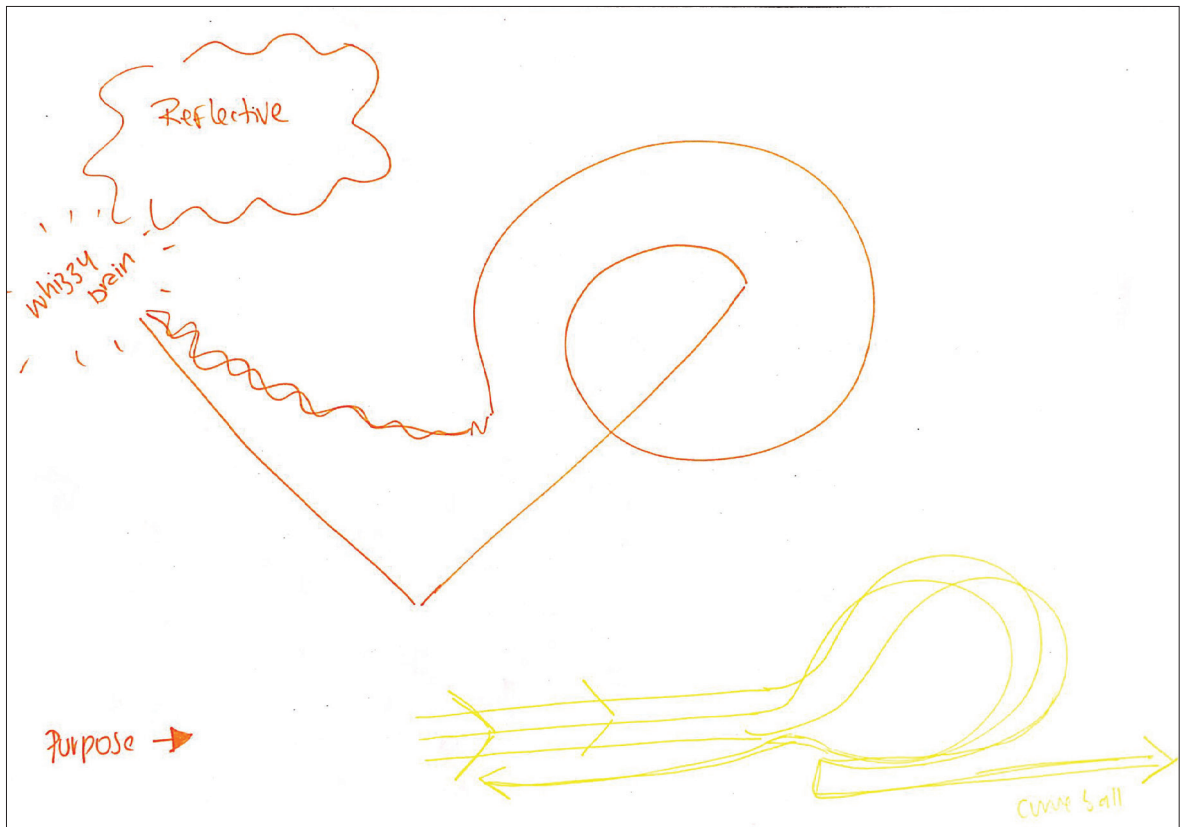## 5.9.1    Embodied Practice

Figure 91.    Drawing by *Ida* (Design).
Figure 92.    Drawing by *Carl* (Design).

'We don't even sometimes notice that we're doing it, and I don't think that's good enough either. I don't think that that's right because it's not celebrating or giving people the ability to acknowledge their practice'.

—

*Uma*

'You knew that that was the acitivity they were doing, even without them necessarily having to kind of demonstrate it physically [...] I found when I was thinking of a concept, I would also be thinking of the curation and when I was researching, I'd obviously be thinking about final outcomes [...] and then reflection is kind of going on all the time'.

—

*Fred*

'... One of the first things you, you learn to do, or do, do as a chair designer, is turn it upside down, because that's where all the secrets are; that's where the knowledge about how this thing is really made, it's always hidden underneath'.

—

*Charlie*

'Maybe it's just such an ingrained part of my practice that I can't, I can't separate it'.

—

*Tamina*

'As a practitioner, you, you kind of know what you're doing and why it works, but you can't always articulate that'.

—

*Connie*

'We're actually reflective all the time, we possibly just don't realise it'.

—

*Sara*

'I think it's intrinsic [...] I think every practitioner naturally, mindfully does it because it becomes part of their practice, unconsciously or subliminally'.

—

*Carl*

Figure 93.        Participant extracts relating to Tacit Practice – Hidden.

'At level three it is more about their practice and bringing in their emotions'.
—
*Ann*

'Bring your creativity in, that way it will be better, also you, you will enjoy it more. It will be more you'.
—
*Connie*

'If you're on cloud nine you're like yeah okay, not everything worked out but it was fine you know, you kind of have a more of a positive outlook on on your work'.
—
*Alma*

'It's not blocking off the emotions from the thinking [...] this is what reflective practice for me is about, what you feel inside'.
—
*Roz*

'Allowing yourself to feel happy, sad, angry, upset, can aid thinking if you, if you just repress all that, you're repressing half of you [...] you've got to allow yourself to let the emotions go through you, but if they're too strong, they're just, you just stop thinking. So I'm really, yeah, how can I do them both at the same time in a productive way?'.
—
*Thea*

'If they're excited, or if they feel like they've achieved something, and they can analyse what it was that they got out of that, what it was they were drawn to; I encourage them to put more energy into that'.
—
George

'It's become much more about emotional experience, about the emotion of making'.
—
*Charlie*

'I'd just say right, just off the top of your head, write how yo're feeling'.
—
*Thea*

'First and foremost, sort of figure out what you want to do; what you enjoy'.
—
*Flo*

Figure 94.        Participant extracts relating to Emotional Practice.

Reflective practice in Design was not solely about thinking but involved doing, making, and interacting. Across all themes, embodiment was prevalent; participants consistently highlighted the importance of physical and cognitive engagement in reflective practice. The phenomenological perspective of embodiment emphasises that somatic experiences inform perception, cognition, emotions, and interaction with the environment (Damasio, 1999; Lakoff and Johnson, 1999; Merleau-Ponty, 1962). More recently, Culshaw (2023) proclaimed arts-based embodied approaches supported academic leadership development. This contemporary commendation offers broader possibilities for knowledge contribution beyond reflective practice within the discipline of design.

In the Creative Practice theme, making and doing were inherently reflective (Schön, 1983). In Academic practice, physical and conceptual spaces were crucial (Kinsella, 2009). In Practising Practice, the integration of reflective practice with physical actions and material manipulation was essential (Schön, 1983; Argyris & Schön, 1992). In Demonstrating Practice, physical documentation and various representations were key to explicating reflective processes (Gray and Malins, 2016; Ali, 2020; Clarke, 2007; Kress and Van Leeuwen, 2020). Collectively, these approaches facilitated a dynamic and comprehensive reflective process that transcended simple contemplation.

This embodied understanding by the participants supported reflective practice and was understood as a lived experience, deeply rooted in the physicality of the design process. Integrating the mind and body in reflection leads to richer, more intuitive and effective practices in design education (Schön, 1983), as 'a wholesome approach [...] paving the way to Mastery' (Vijayalakshmi, 2022).

## 5.9.2   Tacit Practice

Considering embodied practice as a nuanced aspect of reflective practice necessitated a focus on both the explicit and hidden elements of tacit practice, given the centrality of these to design practice (Raven and Textbook Studio, 2019a; 2019b; Rogers, 2008; Schön, 1983; Wood et al., 2009). The integration of multimodal practices within reflective processes (Multimodal Practice) further amplified the importance of tacit knowledge, as highlighted by the sophisticated interplay between visual and textual modes in design education (Sims and Shreeve, 2012), two key points emerged:

First, there are subtle differences between the terms 'reflective practice' and the shortened form, 'reflect,' which were used interchangeably across the university, including within the Design Department (A priori analysis). When participants were

asked to differentiate between these terms, they unanimously identified 'reflection' as surface-level and 'reflective practice' as more meaningful (Section 5.7.1). Second, participants often used 'creative practice' or simply 'practice', meaning design practice, interchangeably with reflective practice (Creative Practice theme). This nuanced interpretation aligned with other terms being confused in arts education, such as critical thinking with critical dialogue (Chappell and Chappell, 2016) and the dualities of acknowledgment and disregard in tacit practice (Philipson, 2021), which altogether reflects the significant role of connoisseurship in design education, where unarticulated understandings inform practice (Neidderer, 2007). Furthermore, this ambiguity underscores the need for a critical pedagogical approach to reflective practice in design (Vaughan et al., 2008). To simplify this complexity, explicit aspects were considered before addressing the intricate hidden elements of tacit practice.

## 5.9.2.1        Explicit Tacit Practice

References to tacit practice were explicit across the department when participants talked about reflective practice (Figure 90).

Tacit practice was inherent within Design L&T. For example, *Ida* considered that by graduation, students were 'doing it tacitly anyway,' and occurrence in professional practice was implied by *Charlie*'s reference to 'all makers [making] tangible decisions, tacit decisions.' Furthermore, the significance of tacit practice in the iterative nature of design and reflective practice was highlighted by this example of the multiple decisions made when throwing a pot. This aligned with technical rationality, mind-and-body dualism, and artistry, informing a holistic process within a creative act (Hong and Choi, 2011; Schön, 1987; Kinsella, 2009). Tacit knowledge is embedded in the practical and experiential aspects of the LOs across all disciplines and levels of study (Appendix 9). This integration allows students to apply their learning in real-world contexts, develop professional practice, and navigate complex, often unspoken aspects of design practice. This highlights the importance of reflective practice in design education, aligning with the notion that tacit knowledge is integral to design thinking and reflective practice (Schoormann et al., 2023).

Widespread understanding of tacit knowledge was revealed across the Design diepartment, CS, Study Support services, which encompassed different levels of experience across the participant sample. These explicit acknowledgments demonstrated an awareness of the importance of tacit knowledge to reflective practice in the context of departmental L&T. This aligned with Sims and Shreeve (2012) signature pedagogies in A&D and Barad's (2007) notion of diffraction, emphasising how differences and intersections generate new patterns and insights,
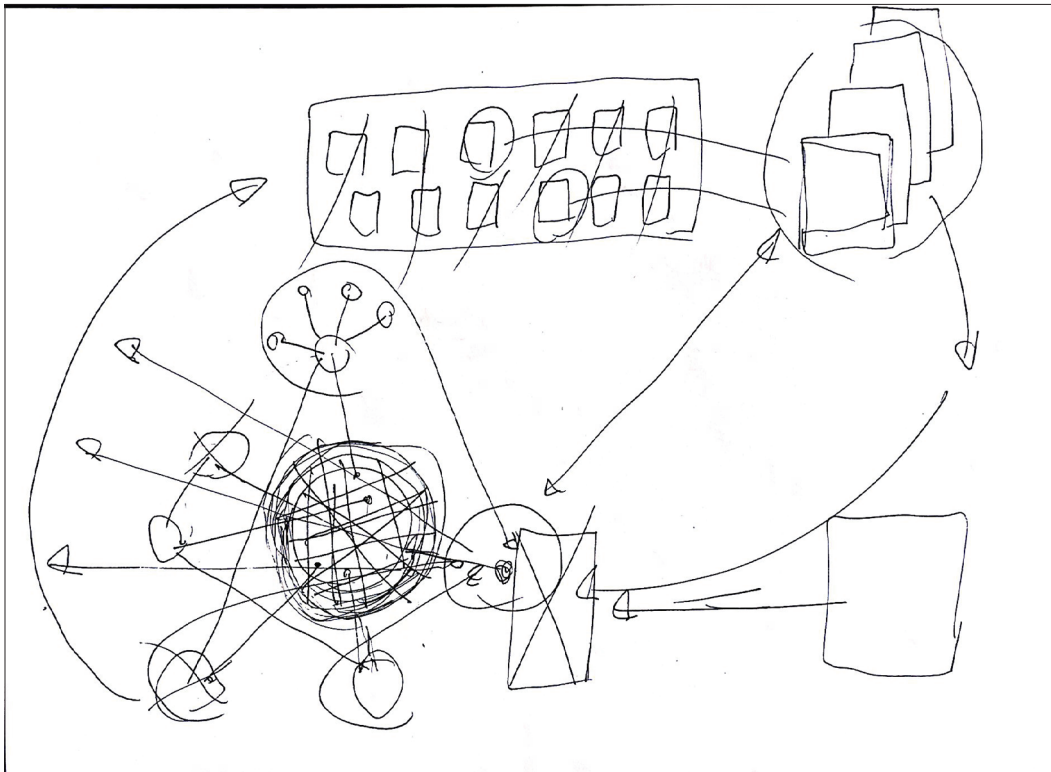
'I'd be looking for pathways out of that' (*Idris*)
'And actually, because what I've done here, is in between' (*Fred*)
'It's kind of all within a social or historical context' (*Connie*)
'...me trying to unravel that a little bit initially' (*Chloe*)

Figure 39.      Drawing by *Idris* (Design)
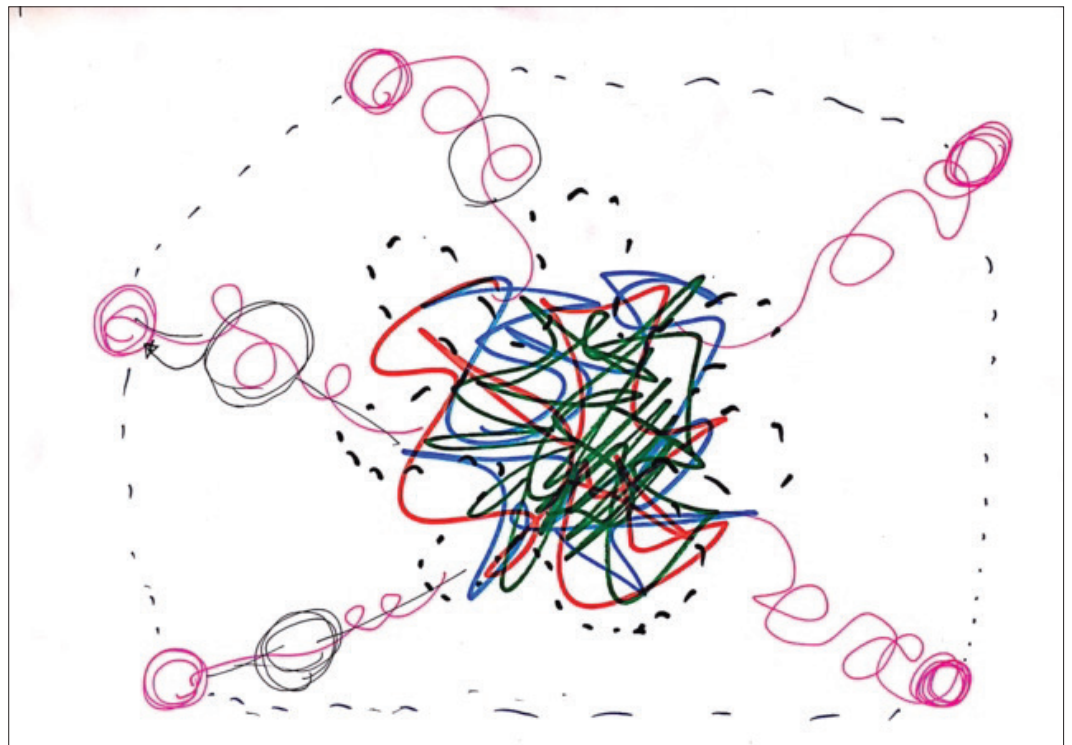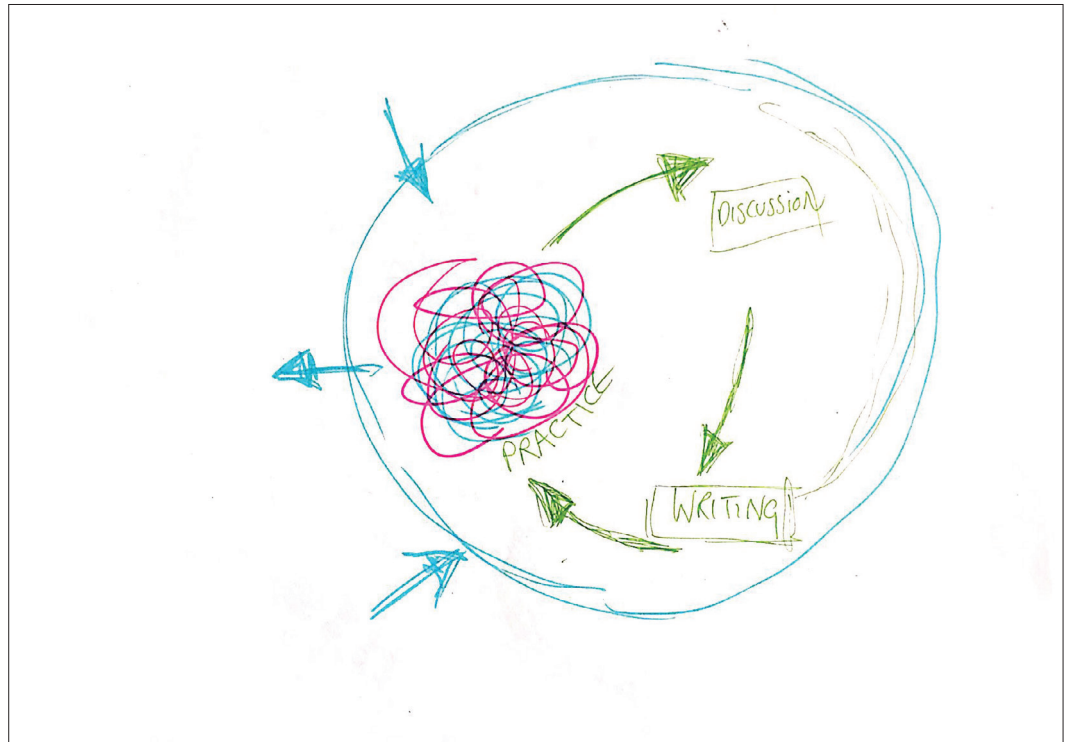Figure 37.      Drawing by *Fred* (Design)

Figure 47.    Drawing by *Connie* (CS)

Figure 57.    Drawing by *Chloe* (CS)

and with embodied reflective practice, emphasising the holistic and interconnected nature of reflective practice. Ultimately, an effective understanding of design thinking, analysis, and reflective practice must acknowledge the central role of tacit knowledge (Schoormann, et al. 2023).

While acknowledging the importance of tacit knowledge in reflective practice, within critical pedagogy and design dogmas (Hesseling, 2016), this recognition could lead to a rejection of unquestioned practices. For example, *Isaac*'s dismissal of reflective practice as 'it's a subconscious thing,' and other rejections referred to in the Academic Practice theme. This highlights the potential for increasing the understanding of critical practice to challenge and transform the department's understanding of reflective practice, moving beyond an endpoint 'reflect' (A priori analysis) and aligning with established frameworks like Schön's (1983) emphasis on reflection in- and on-action.

Explicit tacit practice was also demonstrated in the participants' amended drawings. For example, *Ida* (Figure 91) intentionally used a yellow pen so that content was not discerned, and *Carl* (Figure 92) added yellow to the snake's tail as a rattle, alerting a need to be made aware of reflective practice. This was discussed earlier (Section 5.8.2.2, Table 10), whereby the drawings revealed under-acknowledged aspects of tacit knowledge and emotional depths within reflective practice.

The amendments were consciously executed, although alluded to the importance of hidden knowledge, openness and awareness within tacit and reflective practices, mirroring James' (2007) endorsement of visualising 'critical reflection' to elicit thoughts that were difficult to articulate. Ultimately, an effective understanding of reflective practice must recognise the central role of tacit knowledge, which leads to deeper consideration of unacknowledged tacit practice.

## 5.9.2.2      Hidden Tacit Practice

To first recap, to ensure clarity within this complex discourse, participants' understandings of reflective practice revealed a duality in their perception of tacit knowledge. While explicit links to reflective practice were shown in the extracts (Figure 90), it was also observed implicitly. This aligns with the concept of tacit knowledge being inherent and pervasive, 'knowing-how' yet not always overtly recognised (Argyris and Schön, 1992/1974). Design thinking, for instance, exemplifies this by heavily relying on implicit and tacit knowledge throughout the varied processes of problem-solving a brief (Schoormann, et al., 2023). All extracts in Figure 93, excepting *Uma*'s, highlighted reflective practice was part of design practice and were referred to as: 'secret […] hidden' (*Charlie*), 'without necessarily

'We all said that the thing that we were most conscious of, as creative people, was getting it wrong, and how that affects, like the cycle of making and doing'.
—
*Tamina*

'I feel like I can get, I can just not want to make anything. I think I am too worried about my own voice or my own sort of ciriticisms or other people's criticisms'.
—
*Chloe*

'It [reflective practive] instigates a kind of fear about committing to producing a place of work and making it visible; you've got that constant feeling of 'anyway, is it good enough?''.
—
*Fred*

Figure 95.　　Participant extracts relating to a detriment to 'Making' and 'Doing'.

'I used to describe myself as a curator. I don't feel comfortable with any of those labels [e.g. professionalism] … it's almost that I'm not good enough, I am not being polished […] I don't feel comfortable with academic work. You know, I have plenty of publications and I have examined, so to call myself an academic is, it doesn't feel quite right. I am professional. I'm certainly a professional but, that's on my stuff, you know. Somebody looking at me and says, 'You're an acadeic academic', you've got an academic job'.
—
Roz

'As for Schön saying that you would reflect when in a professional job. I would probably disagree because I think we reflect all the time'.
—
Sara

'A professional? Yeah [laughs] that's a good one!'.
—
Alma

'You get a lot of, of, of, sort of, imposter syndrome in your own head, I think… I'm an artist and lecturer'.
—
Uma

'If I was filling out a form, i'd tick someting in the professional kind of catergory, but in myself, like, not really. I think because of the nature of the work'.
—
Cara

'It's like […] being unprofessional, you know, so being sort of being, so not, not being kind of not good at what you do, but it's kind of challenging what 'professional' is by being against the professional norms. And actually, within that, there's lots of creativity and a lot of good stuff comes out of being unprofessional'.
—
Isaac

'Such a funny word, isn't it? I suppose I, I am an artist and I, I do put my work into the world and I earn money'.
—
Polly

'God no, […] I don't think I am. Maybe that's a bit imposter syndrome? I am, like, a Material Explorer'.
—
Tamina

'I've been all sorts of different types of practitioner. So, I used to be a designer, and an artist […] and educator […] but then my practice has evolved over the years…'
—
Ann

'I feel, I have great responsibility to maintain a, I suppose a reputation of a reputation of as a professional, that there are ways in which you conduct yourself as a professional. […] what I always say to students is, you need to consider your, […] themselves as a professional, start to see themselves in that light. And no, they're not professional. But I think the reflection can help them become the professional they want to be'.
—
Steven

Figure 96.        Participant extracts: Professional Identity.

'Just through the nature of being, yeah, a design practitioner, working on my own; the pressures that that brought, that I think if I could have, if I could have had more time and space for reflective practice, I might have made better decisions [...] I feel quite strongly that I didn't have the skills to be able to manage just running a business [...] if I'd have been able to cope more through the reflection that I know now, I think I could have done some things differently'.

—

*Thea*

'I think my teaching has helped me reflect in practice. So that way around. I think it's helped me be more direct, and on the flip side, I think the real life application has helped me teach'.

—

*Ida*

'If anything goes wrong, usually if it goes wrong, it is even better, as long as they're kind of reflecting on the experiences that's where they're learning'.

—

*Arthur*

'I'm not happy with what I did; someone said something [...] looked at me; there was a misunderstanding [...] and that bundle in the middle is all of that going on all at once. Then the dotted black lines are me trying to unravel that a little bit [...] me trying to just tease out, rather than it being a mess, trying to tease out what was really going on there'.

—

*Chloe*

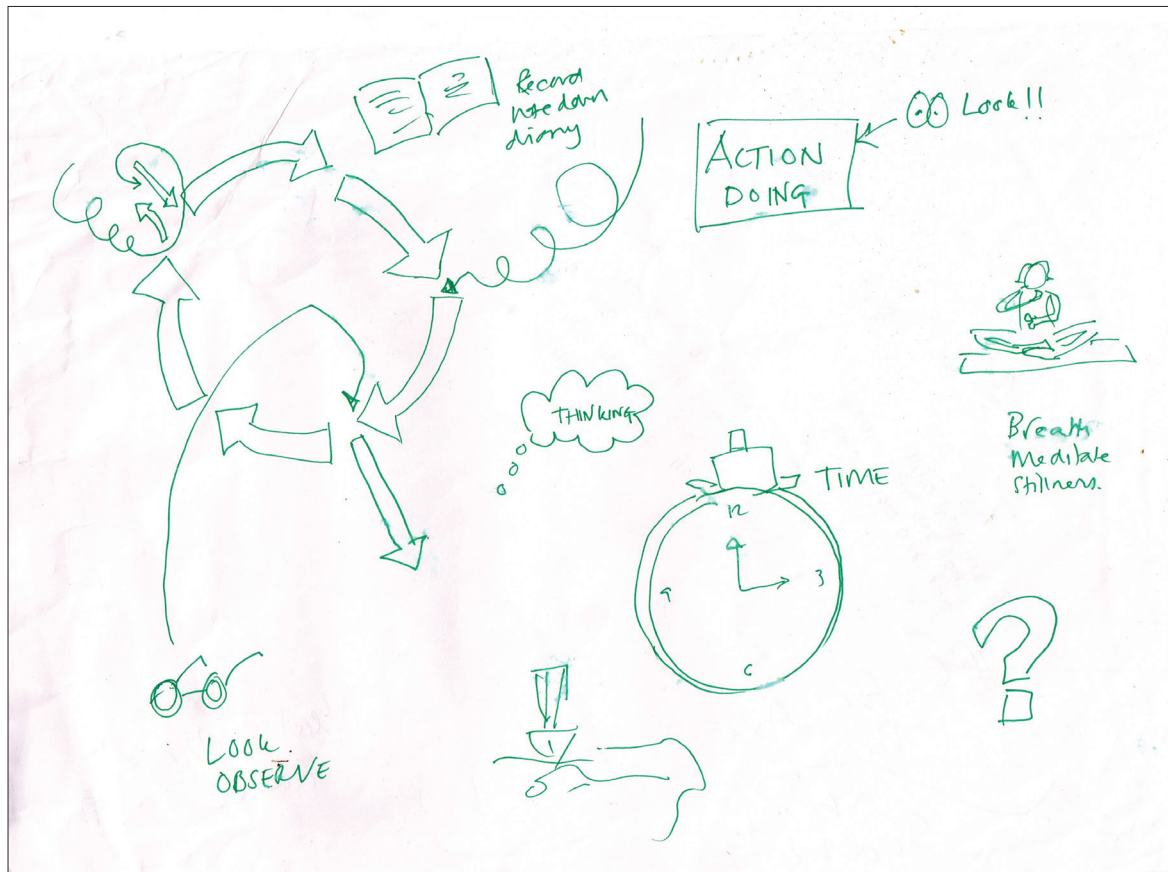Figure 97.        Participant extracts relating to Resilient Practice.

Figure 98.    Drawing by *Uma* (University-wide and Design).

having to demonstrate it' (*Fred*); 'ingrained as part of my practice' (*Tamina*), to unrealised (*Sara*), 'intrinsic', and 'unconscious'. These examples reinforced the implicit widespread presence of tacit understandings of reflective practice within the department's reflective practices.

The unspoken nature of reflective practice presented a double-edged sword. The transmission of implicit tacit practice can be achieved through role-modelling (Budge, 2016). However, this method carries the risk of perpetuating a cycle of limited insight (Philipson, 2021). Likewise, the design dogmas approach, which facilitates critical reflection (Hesseling, 2016), also requires tacit knowledge to be recognised for efficacy. Ultimately, unaddressed tacit knowledge hinders the development and teaching of reflective practice and consequently, professional practice (Schön, 1983). However, *Uma* disputed the tacit dimension of reflective practice, advocating that explicit awareness was necessary to recognise and 'celebrate' design practice. This recommendation, alongside the widespread understanding of the relationship between tacit and reflective practices, suggested that this potential drawback could be addressed if made known through active dissemination, such as through peer assessment (Cutroni and Paladino, 2023) and using creative, multimodal methods to support engagement. Furthermore, the reference to celebrating by *Uma* intimated that partaking in conscious reflective practice was enthusiastically beneficial, which leads into the penultimate section about emotions.

### 5.9.3   Emotional Practice

The relevance of emotions to the understanding of reflective practice was revealed as integral to design practice and professional (Figure 94). These insights spanned the department, regardless of role or experience level, from *Ann*'s observation of Foundation students to *Roz*, a veteran research associate, emphasising it was personal, about 'what you feel inside.'

Additionally, an emotional connection to reflective practice was evident in *Arthur*'s amended drawing, adding a figure to represent individual identity (Creative Practice). Having an emotional connection with design practice through reflective practice supports reflexivity (Chapter 4. Methodology). Recognising tacit, positive or negative responses assists in understanding design processes. This approach is essential for enriching both educational and professional practices. Reflexivity involves a continuous process of self-awareness and critical self-examination in relation to actions and related real-world contexts, encompassing didactic and ethical dimensions (Bleakey, 1999; Jude, 2018). In contrast, reflective practice, such as Schön's (1983) theory, focuses on professional development. Hibbert et al. (2022) argued that reflexivity supports learning from adverse emotions. Given

the discrepancies concerning the use of terminology and misalignment with some university-wide guidance for reflection, the reflexive stances of the participants warranted further scrutiny.

### 5.9.3.1 Reflexivity of the Participants

Optimism was evident, from permitting happiness (*Thea*), excitement, and enjoyment to stimulate achievement and creativity (*Alma*; *Flo*; *George*). The acknowledgment of varied positive emotions as key to effective reflection and the importance of nurturing environments aligned with Amulya's (2004) definition (Academic Practice theme), which emphasises the need to understand the circumstances that allow creativity to flourish. Creativity was fundamental to both design and reflective practices. For example, over a quarter of the participants favoured Amulya's classification over other renowned theories of reflective practice (Appendix 20). Therefore, identifying key positive emotions within design praxis (Barrett, 2007; Sims and Shreeve, 2012; Schön, 1983; Venkatesh and Ma, 2021) could serve as a starting point for developing a departmental definition of reflective practice.

### 5.9.3.2 Abstract Emotions

However, while advocating for positive emotions not to be 'repressed', *Thea* identified other tumultuous emotions could be experienced when reflecting, which corroborated James' (2007, p.192) findings that critical reflection 'felt like […] an abstract depiction of mess, tangle, loss, uncertainty [and] the unknown'. Notably, these emotions were also mimicked in the participants' drawings and descriptions of reflective practice (Figures 39, 37, 47, 57).

### 5.9.3.3 Intrinsic Limitations

Limitations arising from adverse emotions impacted on reflective practice and were noted as fearing failure, lacking dedication, and experiencing self-doubt and hesitation. These comments were again from participants' with varied roles, validating a potential consistency of opinion (Figure 95).

*Fred* shared fears about 'committing,' 'producing,' and 'not being good enough,' which resonated with the requirement to attain 'PERFECT' standards in Fashion's assignment briefs (A priori analysis, Appendix 14). This reflected his extensive experience as a student and teacher in the programme (Appendix 19), suggesting two key points linked to reflective practice. First, the department's GTA initiative

promoted ingrained understandings of reflective practice from multiple perspectives (student-to-staff progression), supporting Schön's (1983) theory for professional development. Second, comparing A priori with A posteriori analyses showed that practices instilled as a student can be perpetuated in professional practice, which may not always be beneficial personally or in an L&T context. Together these findings underscored the importance of addressing emotional factors in reflective practice (James, 2007).

## 5.9.4 Extrinsic Influences

Beyond intrinsic challenges to reflective practice, extrinsic influences also facilitated emotional impediment. 'Crits' were anxiety-inducing in learrning and teaching (L&T) and professional practice (Demonstrating Practice theme). Instead of enhancing growth, scepticism and insecurity can be induced (Finlay, 2008; Rogers, 2012). This connotation was potentially supported by James (2007) identifying some staff and students who were opposed to the inclusion of personal issues in reflective practice prompts, preferring technical skills and professional preparation and suggesting that emotions could weaken the authority of design as a discipline. Although this contradicts design dogma, disruption and design thinking methodologies (Hesseling, 2016, Lee-Smith, 2019; Lohiser and Puccino, 2019) and Design staff participants non-conformist approaches (Creative Practice; Academic Practice).

Furthermore, wider findings endorsed emotions facilitated caring, akin to infant pedagogy (Van Manen, 2002), which linked to the A posteriori reference to nurture (Academic Practice), and to trust and discovery within design educator teacher training (Visscher-Voerman and Procee, 2007). Moreover, accessing and disclosing negative emotions in academic contexts can influence reflexivity and resilience (Hibbert et al., 2019), and lead to 'care and collective reflection' (Smith and Ulus, 2020, p.852). In this context, tools like an abacus have proven useful in recording and managing emotions such as anger (Visualising Practice), thus facilitating reflective practice by providing a tangible method to track feelings and enact systematic reflective practice. Altogether this suggested that understanding and engagement in reflective practice requires considering emotional influences, which can be impactful, and are essential generating a conducive environment for professional growth.

## 5.9.5 Mutable Emotions

Managing individuals and groups in HE is challenging due to the mutable nature of emotions (Hibbert et al., 2022; Smith and Ulus, 2019). Participants' views on professionalism illustrated this complexity (Figure 96).

Overall, the perception of a professional was largely rejected in favour of 'creativity' and 'unprofessionalism' (*Isaac*), over traditional professional 'labels,' (*Roz*) and preference for terms relating to practitioner statutes as 'artist' or 'material explorer' (*Polly*; *Tamina*). This understanding resonated with Bonnell (Foster, 2014, last para.) and her ideology for unprofessionalism and endorsing failure,

> 'In all those areas [of a professional artist] I have very happily failed. I believe all these failures have, in fact, made me better at persevering to become an artist...',

and aligned with Schön's (1983) concept of artistry, highlighted by implicit associations between creativity, design practice and reflective practice by many of the Design tutors. Additionally echoing with signature pedagogies of A&D and design thinking methods (Sims and Shreeve, 2012; Schoorman et al., 2023). This reciprocity supports the applicability of Schön's theories and model to design education and the Design Department.

## 5.9.6    Divergent Viewpoints

Study Support participants' views, contrasting with the Design-lecturer's views about professionalism, emphasised traditional, capitalist frameworks of 'responsibility [and] reputation' (*Sara*) to 'help students mitigate some of the by-products of the effective functioning of the neoliberal university' (*Steven*). Likewise, drawings of reflective practice depicted customary models of reflective practice versus novel illustrations of thinking, making and doing. These divergences from creativity accorded with Akermann's (2020) claim for 'invisible third space workers' to be better integrated into academic practice. However, claims of experiencing imposter syndrome (ibid) were unsupported, yet voiced by Design academic participants (*Tamina*; *Uma*).

Furthermore, there were other mutable distinctions across the sample and within individual participants (Appendix 28). For instance, *George*, a fractional lecturer, reported not understanding the thesis research purpose and tacit practice, yet proclaimed 'creative challenges' linked to 'getting off the desk' facilitated reflective processes. This emotional narrative, from implicit confusion to explicit realisation demonstrates the complexity of reflective practice, aligning with diffraction (Barad, 2007; Hill, 2017) (Creative Practice; Practising Practice), and tacit practice. This also resonates with variances in part-time design lecture-practitioner fluctuating identities (Shreeve, 2011) and lesser experienced staff (A priori analysis, 5.2.3).

Extending the relevancy of emotions, specifically nurture and diffraction (Academic

Practice) (Barad, 2007; Hill, 2017), Yusfid et al. (2024) argued that paradoxes of care and ambiguity in A&D can be used to investigate global, moral, neoliberal and political confluences. This extends the remit of the thesis investigation beyond solely design education to wider contexts and leads to the consideration of resilience as a fundamental agent for reflective practice.

Participants' passions, positive and negative, regarding L&T, working conditions (Academic Practice, Physical and Conceptual Space), and professional practice garnered nuanced understandings. These sensitivities opposed the criticism of Schön's (1983) theory for lacking reflexivity and being apolitical (Bryant and Johnson, 1997; Smith, 1989). This is particularly notable considering the many aspects of design practice that correlate with the theories of reflection-in-action and reflection-on-action throughout this investigation. Reflexivity ensured a comprehensive approach that addressed the complexities and emotional influences inherent in design education (Bowers et al., 2022).

## 5.9.7   Resilient Practice

The importance of reflective practice to transform emotional challenges into positive opportunities were observed across theoretical and practical L&T design contexts and professional practices (Extract 85). Notably, different participants were included in each set of extracts in this final theme, supporting a comprehensive representation of the thesis sample across 'expanded practice', contributing to a collegiate understanding of reflective practice (Figure 97).

Reflective practice unanimously provided skills for sustaining and improving design practice, from learning from setbacks (*Arthur*) to visualising decision-making (*Chloe*). Both *Thea* and *Ida* acknowledged the crucial role reflective practice played in informing professional practice successes. *Thea* further stressed the need for' time and space for reflective practice' (Academic Practice). These resilient strategies and 'outcomes' were described by Crane et al. (2019, p.4, citing Kalisch et al., 2017) as 'the maintenance or quick recovery of mental health during and after exposure to significant stressors'. This resilience highlighted the importance of citing 'critical reflection' in HE A&D (QAA, 2019) and 'critical thinking' broadly across HE (Augar, 2019). However, there are anomalies that influence the understanding of reflective practice in Design. Despite the omission of 'reflection' from generalised education standards (Augar, 2019), reflective practice is a requirement in many professional practices, such as teaching and healthcare, and is formally supported as structured supervision between colleagues. For example, in occupational therapy and the clinical reasoning framework (Mattingly, 1991). This suggests further research into other discipline's benchmark statements would be beneficial to compare against

A&D's and into associated curricula. Therefore, despite 'critical reflection' being included in the A&D benchmark statements (QAA, 2019) and repeated across Design's curricula (Appendix 10), it is not formally encouraged in the creative industries due to lacking standardised accreditation methods (CIISA, 2024).

Therefore, while design educators may understand and apply reflective practice in L&T and personal/ professional practice, it is not a formal requirement in creative practice. Hence, individuals who engage in reflective practice may not necessarily apply it consistently in L&T, particularly if they derive from industry and/or prioritise making and doing over theorising, as evident in Design's curriculum LOs (Appendix 9). This is particularly relevant for part-time educators who balance teaching with professional practice, often resulting in fluctuating commitments between the two (Shreeve, 2012) and those who are not qualified or reject recognising and/or understanding reflective practice and criticality, as noted in the A priori analysis.

Within the resilience practices observed, reflective practice is presented as active, reciprocal and cyclical across L&T and professional design practice, which informs further resilience for continuing and developing academic and professional practices. As an end to considering resilience, it appeared that reflective practice was understood through voiced accounts and in the drawings, in complex and varied ways. This was best illustrated by *Uma* (Figure 98). This drawing contained elements common to the other participants' drawings of reflective practice and the key themes within this analysis: critical thinking (digging-deep) and doing, which support praxis and embodiment, through sketch-booking/ journaling and meditation, having sufficient time and space, being self-aware and more.

Ultimately, the aim of engaging in reflective practice is to attain and sustain positive outcomes that are essential for personal growth (Brookfield, 1995), using 'honesty […] to learn, improve and grow' (Eichner, 2022, p.168). This sentiment was supported by evidence from this investigation, which suggested that active engagement in design practice, encompassing both physical creation and cognitive, critical discourse, in well-considered time and spaces, promotes the production of innovative solutions to design problems. Reflective practice, coupled with a mind-and-body dualism (Schön, 1983), supports dynamism, praxis, and embodiment in design (Section 5.6 Academic Practice), effectively leading to a continuous cycle of thinking, doing, and reflecting. This point effectively leads to the end of the A posteriori analysis.

To end this last theme, the analysis revealed significant patterns in how reflective practice was understood and applied across the university and the Design department. These patterns suggest variations in interpretation and implementation, which will be explored in the conclusion.

## 5.10    Summary: A Posteriori Analysis and Discussion

This section provides a summary overview of the A posteriori analysis, focusing on the lived experiences of reflective practice by Design staff and the outcomes from their visualisation task. Thematic analysis revealed five key areas of reflective practice deeply embedded in design education.

Reflective practice in Design encompasses documentation, visual practice, verbal critique, and group collaboration, which all relate to making, doing, and tacit knowledge. Practising Practice highlights the importance of hands-on processes, with participants' visualisations often illustrating the cyclical and iterative nature of improvement through shared symbols like circles and spirals. However, there were notable gaps between embodied knowledge and its verbal or written articulation, underscoring the challenge of making tacit knowledge explicit.

*Demonstrating Practice* revealed that visual methods, such as drawing and sketching, offer insights often missed in verbal or written reflections, contributing to deeper understanding and critical reflection. Subsequently, *Creative Practice* illuminates the dynamic role of experimentation in learning and professional practice, aligning with Schön's (1983) reflection-in-and-on-and-for-action and Kolb's (1984) Experiential Learning Cycle. In contrast *Academic Practice* identified tensions between professional creative practice, which emphasises experimentation and non-conformity, and more formalised academic frameworks for reflective practice. There were inconsistencies between the Design Department's endorsement of 'reflective practice' and the university's focus on 'reflecting,' which was seen as surface-level. This highlights the need for clearer guidance on applying reflective models and distinguishing critical reflection from other cognitive processes.

Through the visualisation task, participants demonstrated the role of Visual Practice in externalising thoughts and enhancing collaboration, confirming the importance of multimodal approaches in fostering deeper and more effective reflection in design education. This analysis underscores the significance of integrating visual, verbal, and written forms to fully capture the complexities of reflective practice.

Together, these insights point to the need for a more cohesive and comprehensive approach to reflective practice in design education. The final chapter will consolidate these findings, readdress the research aims, and propose enhancements to the understanding of reflective practice in design education.

# Chapter 6.
# Conclusion

This final chapter synthesises the research findings on reflective practice within a Design Department, foregrounding the significant contributions to knowledge, key insights, implications, and recommendations. It revisits the research aims and objectives, demonstrating how this study has advanced understanding of reflective practice in design education, and outlines directions for future development.

## 6.1    An Overview of the Research Aim and Objectives

The primary aim of this research was to investigate the understanding and implementation of reflective practice among educators, academics and study support staff, within the Design Department of a UK Higher Education Institution (HEI). The study explored how reflective practice was perceived, applied, and integrated into educational processes, considering the specific qualities and opportunities inherent in design education. The research objectives were threefold: first, to identify the pre-existing concepts and frameworks of reflective practice across the university (A priori analysis); second, to examine the lived experiences of reflective practice through thematic analysis of interviews and visualisation tasks (A posteriori analysis); and third, to assess how these insights could inform more effective reflective practices within the department. Understanding reflective practice within the Design Department is crucial, as it plays a fundamental role in fostering creativity, innovation, and critical thinking, which are key competencies in design education (QAA, 2019). Educators are expected to comply with this strategy to effectively promote these competencies.

### 6.1.1    A Priori and A Posteriori Analysis

The relationship between the department and the wider university was marked by theoretical alignment yet inconsistent application of reflective practice frameworks. The department appeared to adopt university-endorsed models, such as Schön's (1983, 1987) reflection-in-and-on-action as well as Gibbs' (1988) reflective cycle. However, the rigour of citing these sources was omitted and implementation varied significantly across roles and contexts, leading to fragmented L&T scholarship. This discrepancy was potentially due to the ambiguous and tacit qualities of art and design (A&D) signature pedagogies (Sims and Shreeve, 2012), which conflict with the university's stated methodology. This resulted in varied interpretations and uneven application of reflective practices within the department. This analysis underscores the need for a more integrated approach, ensuring better alignment between university frameworks and the specific needs of design education. Developing a cohesive strategy to address these gaps is essential for improving reflective practices in both theoretical and practical contexts.

## 6.2    In-depth Summary of the Key Findings

This section is structured around the key components of the analysis. This commences with an overview of the A priori analysis, which establishes the relationship between the wider-university context and the Design Department. This is followed by an in-depth exploration of reflective practice detailing participants' experiences derived from discussion, drawing, recommended sources of visual inspiration and student work, and relevant philosophical frameworks. Together, these elements contribute to articulate a comprehensive understanding of the complexity of reflective practice in the Design Department.

### 6.2.1    A Priori Analysis

The analysis of pre-existing material within Design regarding reflective practice indicated a fragmented understanding and significant variation in perception and implementation across different roles within the department. The A priori content promoted reflective practice using varied terms. The teacher training course, Study Support and the Design programmes endorsed 'critical reflection', albeit with varied clarity and uncertain rigour, despite showing a collective cohesion, while Design used 'criticality' and 'critical reflection' creating a discordance among the department and with the general university-wide approach. Overall, this analysis highlighted the need for a more integrated and consistent methodology for reflective practice, with clearer theoretical grounding and better alignment across various academic and practical contexts. In this regard, Syed et al's (2022) research emphasises the importance of collaboration and a holistic approach (Chapter 1 Introduction) is notable, which could serve to bridge the identified gaps.

### 6.2.2    A Posteriori Analysis

The A posteriori analysis involved a thematic examination of interviews, revealing five key themes central to understanding reflective practice in Design: Creative Practice, Academic Practice, Practising Practice, Demonstrating Practice, and Expanded Practice. Participants' drawings, resulting from an independent visualisation task set during semi-structure interviews, aligned with these themes to varying extents, with some outcomes resonating more strongly and frequently with certain themes than others. Collectively, these visual representations provided particular insights into the tacit dimensions of reflective practice within the department. Similar to Smith's (2022) use of exhibitions as a way to visualise educational research outputs in an art school setting (Chapter 1 Introduction),

the drawings in this study served as a powerful tool for making explicit the often-implicit processes of creative and reflective practices.

## 6.2.2.1 Creative Practice

Reflective practice was closely linked to creativity, as highlighted in the A priori analysis, and was characterised by experimentation, non-conformity, and individualism. The importance of dynamic and iterative processes was emphasised, aligning with Schön's (1983, 1987) reflection-in-and-on-action models, his theory of professional artistry, and other key epistemologies (Kinsella, 2009). Both Kolb's (1984) experiential learning model and Bonnell's (Foster, 2020, online) concept of Wilful Amateurism were identified as valuable frameworks for understanding reflective practice, encompassing approaches that ranged from the 'absurd' to the renowned in design education, and supporting critical perspectives (Hong and Choi, 2011; Mezirow, 1991). However, this diversity of approaches also highlighted inconsistent implementation across the department, which consequently affected a coherent understanding of reflective practice.

## 6.2.2.2 Academic Practice

The perception of reflective practice varied significantly within the scholarship of L&T and research, influenced by personal and disciplinary experiences, highlighting the importance, yet poor comprehension for 'critical reflection'. This term is commonly difficult for educators to understand (Šarić and Šteh, 2017) despite recommendations by Dumitru (2019) that creative disciplines are well situated to promote 'meaning-making' due to inherent critical qualities in design practice, such as design thinking and design dogmas approaches (Hesseling, 2016, Lee-Smith, 2019; Schoormann et al., 2021). The visualisation tasks highlighted divergent and similar understandings of reflective practice, shaped by academic and professional contexts, and longevity of time in role or experience. These findings suggest a need for tailored reflective practices that balance structure and flexibility, aligning with Schön's (1975, 1983, 1987) models and Brookfield's (1995) lenses, (colleagues, learners, theoretical and autobiographical lenses) alongside possibilities to extend existing research into part-time A&D tutor academic identities (Shreeve, 2011), and challenging notions of third space-worker invisibility (Akermann, 2020) linked to association with study support staff.

### 6.2.2.3    Practising Practice

Reflective practice was deeply intertwined with the 'making' and 'doing' of design practice, indicating a reliance on tacit knowledge (Budge, 2016a; Polyani, 1967). This section emphasises reflective practice in design education involves internalised, unspoken and ambiguous knowledge developed through hands-on activities (Ali, 2020; Hong and Choi, 2011; James, 2007; Sims and Shreeve, 2012, Orr and Shreeve, 2019). However, the visualisation tasks revealed gaps in awareness and articulation of these practices, highlighting a disconnection between the dualism of the physical body with the mind in reflective practice (Kinsella, 2009). This theme aligns with Schön's (1983; 1987) reflection-in-action-and-on-action, Kolb's (1984) experiential learning, and Vygotsky's appropriation theory (Zaretsky, 2016), which underscores how individuals internalise and adapt practices rooted in social and cultural contexts.

### 6.2.2.4    Demonstrating Practice

Documentation and visualisation were crucial for externalising and articulating the embodied and cognitive processes in design. This section highlights how reflective practice becomes effective when internal processes are made tangible through various formats, including visualisation, verbalisation, and textualisation (Ali, 2020; Beckett-McInroy and Baba, 2022; Blythman et al., 2007; Candy, 2020; James, 2007; Rogers, 2008). Participants' drawings and recommended visual sources provided distinctive insights into reflective practice as dynamic and cyclical, shaped by individual subjectivities and professional experiences. The integration of phygital practices, combining physical and digital methods (Mechan et al., 2024), alongside group practices that mimic architecture's atelier pedagogy (Hall and Barker, 2010), effectively bridged traditional and contemporary approaches to design and reflective practices, enhancing both peer assessments for staff (Cutroni and Paldino, 2023) and student outcomes. This understanding extended to innovative approaches that merge traditional methods, like haikus (Harvey and Oliver, 2024), with contemporary techniques, such as AI (Passmore et al., 2024). The theme of 'Demonstrating Practice' is grounded in Schön's (1975, 1983, 1987) models of reflection-in-on-and-for-action and Wenger's (1998) communities of practice, which emphasise the importance of mutual engagement and shared repertoires. Together, these underscore the critical role of multimodal approaches in making reflective processes tangible.

### 6.2.2.5    Expanded Practice

Reflective practice was perceived as a nuanced experience encompassing embodiment, tacit knowledge, emotional connections, and resilience, which

are characteristics that support a radical critical pedagogy, as outlined by Stevenson (2022) within fashion education and exemplified within this analysis by recommendations of Bonnell's Wilful Amateurism (Foster, 2020). This broader understanding aligns with phenomenological perspectives, which suggest that physical activities profoundly shape perception and cognition (Damasio, 1999; Lakoff and Johnson, 1999; Merleau-Ponty, 1962). This embodied understanding integrates Schön's (1983) epistemologies, including technical rationality and artistry, (Kinsella) and Wenger's (1998) communities of practice theory within multidisciplinary L&T practices and A&D signature pedagogies (Sims and Shreeve, 2012). Emotional connections further support resilience and professional growth (Amulya, 2004; Hibbert et al., 2022) building on James' (2007) recommendations to consider feelings within creative reflective practice. These practices extend beyond verbal reflection, integrating visualisation, and renewing Schön's (1975) concept of reflection-for-action in organisational development. Ultimately, this theme unites the complexities explored across all themes, suggesting that a holistic, dynamic approach to reflective practice can foster meaningful change within the department.

## 6.2.3   Limitations of the Investigation

The limitations of this research include the potential for the A priori material to be an incomplete representation due to the randomly selected sample. This may mean that some relevant details were omitted, or that onus could be placed on a finding that was not as representative as assumed (Merriam and Tisdell, 2009). Additionally, the reliance on staff interviews may not fully capture the nuances of L&T delivery, as the staff interviewed may not be fully aware of all practices that occur during teaching sessions. Another concern is that while the literature discussed the relevance of reflective practice, this focus was not always articulated by the staff, suggesting that the role of students in reflective practice was accepted rather than critically examined. Moreover, while the relevance of digital reflective practice was acknowledged within the literature and discussion (Beckett-McInroy and Baba, 2022; Dias, 2002), it was not noted in the findings. This was due to data gathering occurring prior to the surge of developing prevalence of artificial intelligence (AI) modalities. Collectively, these limitations of the research point to areas where future investigation could be beneficial. The implications of these constraints are addressed in the subsequent discussion of implications for practice, theory, and future research (Section 6.2.5).

## 6.2.4   A Critical Reflection on the Methodology

Initially, this study adopted a phenomenological ethno-case-study design to explore

reflective practice within the Design Department of a UK HEI. The main research intent was to employ an interpretivist approach, focusing on understanding reflective practice through the lived experiences of staff participants. This design was anticipated to adequately capture tacit knowledge and nuanced practices, aligning with Foucault's ideas on power and knowledge, which suggest that individuals' practices are shaped by broader power dynamics within institutions (Murphy, 2022; Olssen, 2016). However, as the research progressed, it became evident that an interpretivist approach would not fully capture the critical stances that participants took. Academics and study support staff displayed dualistic tendencies in approach to reflective practice, embracing it within research despite rejecting it within teaching.

The fluctuations in these findings aligned with Shreeve's (2011) observation that A&D tutors' navigate between practitioner and educator identifies, supporting van Lankveld et al., (2017) assertion that design tutors often resist the label of 'teacher', favouring creative practitioner roles. This unexpected critical engagement was further highlighted by participants' resistance to traditional reflective practice models, preferring to adopt disruptive, intersectional feminist, and creative approaches (Lohiser and Puccino, 2019), a stance that resonated with design dogmas and disruption (Hesseling, 206; Lee-Smith, 2019; Lohiser and Puccini, 2019) and challenged the initial methodological assumptions. This process, following Dean's (2017) reflexive rationale revealed that while the interpretivist approach allowed for a deep understanding of participants' experiences, it also necessitated a shift to recognise and incorporate the critical dimensions of design staff perspectives.

Accordingly, the research evolved to acknowledge and engage with these critical viewpoints, demonstrating that reflective practice in design education is not a neutral process but one that is actively shaped by the participants' professional identities and critical perspectives. Therefore, this reflexivity highlights the importance of remaining open to evolving research dynamics (Robson, 2002; Merriam; Miles et al, 2020). Future studies could benefit from a framework that explicitly integrates both interpretivist and critical methodologies, particularly in contexts like design education, where the intersection of practice and pedagogy presents complex challenges.

## 6.2.5   Discussion of Implications — Practical and Theoretical

This section outlines the practical and theoretical implications of the study, accentuating the need for consistent reflective practices in the Design Department, exploring better integration into teaching and professional development, and

considers expanding existing theoretical models in creative disciplines.

## 6.2.5.1 Implications of the Research

The A posteriori analysis reveals critical implications for enhancing reflective practice within the Design Department. The close link between reflective and creative processes underscores the need for an environment that values time, space, and freedom for experimentation and critical reflection. However, inconsistencies across the department highlight the necessity for a unified approach. Academics and study support staff must collectively recognise the value of reflective practice in design education, particularly its dynamic and iterative nature, aligning with established models like Schön's reflection-in-and-on-action (1983, 1987), Gibbs' (1988) reflective cycle, Kolb's (1984) experiential learning theory, and Mezirow's (1991) transformative learning.

**Integration into Learning & Teaching (L&T):**
Consistently integrating reflective practice into teaching and professional development is essential for academics in design education. The Academic Practice theme highlights the need for clearer guidelines that balance structured reflection with flexibility to adapt to individual teaching contexts. Study support services, crucial for fostering critical reflection (Cottrell, 2023), must align with these guidelines to guide academic staff effectively. Reflective practice should also address the articulation of tacit knowledge, which emerges through 'making' and 'doing.' Visualisation tasks revealed a disconnect between the mind and body, indicating that embodied experiences need to be better communicated. Collaboration between academics and study support can develop tools to make this tacit knowledge explicit, as demonstrated by Rogers (2008) through drawing activities, which can effectively reveal the hidden aspects of design practice.

A comprehensive approach to reflective practice is needed, incorporating diverse methods and ensuring coherence across the department. The Demonstrating Practice theme emphasises the importance of using varied reflective methods within L&T. Study support services should provide resources for multimodal reflection, which can enhance staff and student engagement. By addressing inconsistencies and fostering a more supportive environment, the department can encourage innovation, critical thinking, and professional growth. Approaches such as using drawing to facilitate deeper reflection can bridge gaps and strengthen reflective practices across contexts.

## 6.2.5.2    Implications for Theory

This study makes a significant contribution to the theoretical understanding of reflective practice in design education by highlighting its complexity and integration with the creative process. Reflective practice in design is multifaceted, requiring a reconsideration of traditional frameworks. The research extends Schön's models of reflection-in-and-on-action, challenging critiques of their linearity by demonstrating that reflective practice is cyclical and dynamic, necessitating the inclusion of multimodal approaches and criticality.

Additionally, the research underscores the importance of addressing the mind-body disconnect in reflective practice. By focusing on tacit knowledge and embodied experiences, it offers a more comprehensive understanding of reflection, better suited to the nuances of design education. However, the specialised terminology of concepts like Barad's (2007) diffraction may present barriers to widespread acceptance. Therefore, making these ideas more accessible through practical examples is essential to fostering broader understanding and application of reflective practice in creative disciplines.

This work contributes new findings on a topic previously under-explored, advancing significant new scholarship that challenges existing theoretical models and enhances the understanding of reflective practice in design education

## 6.2.5.3    Future Research Suggestions

Reflective practice in design education continues to evolve, requiring ongoing examination of how it is understood, implemented, and assessed across disciplines. A key consideration is how multimodal approaches, including visual, digital, and embodied methods, enhance reflective engagement beyond traditional written narratives. Future research should explore how these alternative methods support deeper critical thinking and student learning in design contexts. Additionally, comparative studies between disciplines are necessary to analyse the extent to which different fields conceptualise and assess reflective practice. Such investigations could provide insights into whether structured theoretical models, as commonly applied in higher education, can coexist with more intuitive, practice-led reflection without compromising creativity. This is particularly relevant given concerns about reflective practice becoming performative due to institutional pressures, rather than serving as a meaningful pedagogical tool.

The role of power and self-censorship in reflective practice is another key area for further inquiry. Understanding how institutional structures shape the engagement

of both educators and students with reflection could inform strategies to foster authentic and critical reflective spaces. Similarly, research into assessment-driven reflection is needed to determine whether alternative grading approaches, such as formative feedback over summative assessment, enhance engagement and creativity in reflective exercises.

Another critical dimension to be explored is the interplay between tacit knowledge and reflective practice. Many educators and students in creative disciplines utilise implicit reflection embedded within design processes. Investigating how this form of knowledge is articulated and assessed could lead to more inclusive pedagogical strategies that recognise non-verbal and embodied forms of reflection. Furthermore, the emotional dimensions of reflective practice also warrant deeper exploration. Future research could investigate whether incorporating emotional awareness into reflective models enhances resilience and critical engagement.

As higher education increasingly incorporates digital and hybrid learning environments, the impact of these modalities on reflective practice should be examined. Research could determine whether digital tools support or hinder reflective depth and identify strategies for maintaining meaningful reflection in online settings. Interdisciplinary approaches to reflection should also be considered. Exploring how design practice and pedagogy integrate reflective practice could reveal transferable strategies that enhance both professional and academic development. Finally, further research into barriers to written reflection in design education could inform multimodal or hybrid practices to support students in engaging more critically, rather than descriptively, with reflection.

By addressing these areas, future research can contribute to a more nuanced and effective integration of reflective practice in design education, ensuring it remains a transformative tool rather than a bureaucratic requirement.

### Areas for Further Investigation

- Building on the previous suggestions, several areas for further investigation are highlighted:

- Investigate how multimodal reflection enhances student learning and whether visual/embodied reflective practices improve engagement and critical thinking in design education.

- Conduct comparative studies between disciplines to explore how different fields conceptualise and assess reflective practice.

- Examine the role of power and self-censorship in reflective practice, analysing how institutional structures shape educators' and students' engagement with reflection.

- Investigate how assessment-driven reflection impacts creativity and whether alternative grading approaches (e.g., formative feedback instead of summative assessment) improve engagement.

- Explore the relationship between tacit knowledge and reflective practice, analysing how educators and students articulate and assess implicit reflection within design processes.

- Investigate the role of emotional engagement in reflective practice and whether structured emotional literacy training enhances students' ability to navigate feedback and critiques.

- Explore how digital and hybrid learning environments affect reflective engagement and whether alternative approaches are needed to maintain reflective depth in online settings.

- Investigate how interdisciplinary reflective approaches (e.g., combining design and pedagogy) can enhance professional and academic development.

- Examine barriers to written reflection in design education and how educators can support students in engaging critically rather than descriptively.

- Investigate whether a standardised approach to reflective practice in design is possible, or if flexibility is necessary to accommodate different disciplines and teaching approaches.

## 6.2.6   Key recommendations

These recommendations address key challenges in reflective practice within design education, advocating for a more inclusive, flexible, and meaningful approach.

Recognising that reflection extends beyond written models to include multimodal, tacit, and embodied processes, they aim to foster deep engagement, creativity, and critical thinking rather than performative compliance. Emphasising emotional engagement, materiality, and interdisciplinary collaboration, these recommendations support educators and students in developing reflective capacities that are authentic, critical, and adaptable to the evolving landscape of design education and practice.

### 1. Encourage multimodal reflection:

Institutions should support diverse reflective methods, including visual, digital, and embodied forms alongside traditional written models. This recognises that reflective practice in design is often non-verbal and embedded in creative processes.

### 2. Broaden Assessment Criteria for Reflective Practice:

Assessment frameworks should extend beyond written narratives to include process documentation, portfolios, and experimental visualisations, ensuring that reflection is not reduced to a box-ticking exercise.

### 3. Train Educators in Multimodal and Tacit Reflection Approaches:

Faculty development programs should include training on alternative reflective approaches that align with creative disciplines, ensuring that educators understand and value non-traditional reflective methods.

### 4. Develop Cross-Disciplinary Dialogues on Reflective Practice:

Encourage collaboration between Design, Contextual Studies (CS), and Study Support staff to bridge conceptual divides in reflective practice, particularly between structured theoretical models and tacit, practice-led reflection.

### 5. Reduce performative reflection requirements:

Rethink how reflective practice is assessed to ensure it fosters deep engagement rather than superficial compliance-driven responses. This will mitigate the risk of reflection being

institutionalised as a performance requirement rather than a meaningful learning tool.

**6. Create Safe Spaces for Critical Reflection:**

Acknowledging that reflection is not purely a self-improvement tool but also a critical means to examine power dynamics in academia and creative practice.

**7. Enhance Interdisciplinary Collaboration Between Study Support and Design Educators:**

Encourage alignment between study support services and design educators to develop tailored reflective approaches that cater to both structured and practice-led learners.

**8. Expand the Range of Reflective Exemplars Used in Teaching:**

Non-traditional, creative examples of reflection (e.g., performance, multimodal visualisations, and material-based reflections) should be integrated into design curricula to capture the complexity of creative reflective practice.

**9. Recognise Emotional Dimensions of Reflective Practice:**

Promote emotional literacy in design education to ensure students and staff can navigate reflective emotions productively. This includes structuring reflective exercises that acknowledge emotional engagement and resilience.

**10. Incorporate Tacit Reflection into Pedagogical Strategies:**

Recognising that reflective practice in design occurs through making, movement, and process, rather than being purely cognitive or verbal.

**11. Support Reflection Through Material Engagement and Making:**

Encourage reflective practice that acknowledges the role of materials and tools in shaping thinking, decision-making, and

learning outcomes.

**12. Promote contextualised reflection in teaching and assessment:**

Embed reflection within design critiques, real-world projects, and professional practice rather than treating it as an isolated academic exercise.

## 6.2.7 Researcher's Reflections on Educators' Understandings of Reflective Practice and Their Own

Throughout this research, my understanding of reflective practice has deepened, particularly in recognising its diverse and often tacit manifestations within design education. Initially, I was aware of discipline-specific variations, notably the structured application in healthcare (occupational therapy) compared to the more implicit, intuitive approaches in design. However, the study revealed a far richer spectrum of engagement in reflective practice among design educators, from dynamic drawings capturing hands and movement to the acknowledgement of highly creative visual expressions of reflection in-action by renowned practitioners such as Sian Bonnell (Foster, 2021), which challenge conventional models of reflective practice. This reinforced Hesseling's (2016) notion of 'design dogma,' where structured frameworks are often resisted by creatives in favour of fluid, practice-led reflection. Additionally, reflexivity was crucial in this study, requiring me to acknowledge how my background in both A&D and healthcare shaped my interpretations. While striving for balance, I became increasingly aware of instances where my language unintentionally reflected positivist assumptions, particularly in discussing variables and analytical methods, despite operating within an interpretivist paradigm. This realisation underscored the necessity of reflexivity in maintaining epistemological coherence.

An unexpected finding arose from anticipating power dynamics and institutional influences on reflective practice, which were not overtly revealed in participants' discourses. This may stem from their awareness of being recorded during interviewing, leading them to withhold discussions of underlying tensions, or it may reflect an ingrained perception of reflective practice as inherently positive; one framed primarily from the perspective of an educator and promoting reflection as a tool for improvement rather than a process that might expose or facilitate students to focus on negative associations.

Ultimately, this doctoral journey has reinforced the importance of multimodal and discipline-sensitive approaches to reflective practice. It has also prompted a

reconsideration of my role as both researcher and educator, emphasising the need for openness to diverse methodologies of reflection beyond prescriptive theoretical models. Moving forward, these insights will not only inform my own teaching practice but also contribute to broader conversations on integrating reflective practice in HE learning and teaching, and academic development contexts in a way that is both inclusive and meaningful.

## 6.2.8   Final Summary

This study investigated how **reflective practice** is understood and implemented among academics and study support staff within the Design Department of a UK HEI. The research addressed key questions related to **how reflective practice is understood, its perceived purposes, how it is taught and integrated into curricula**, and **who holds responsibility for teaching and assessing it**. Through **A priori** and **A posteriori** analysis, five core themes emerged: **Creative Practice, Academic Practice, Practising Practice, Demonstrating Practice, and Expanded Practice**. These themes offered a comprehensive lens for evaluating reflective practice, revealing its complexity and highlighting areas for improvement.

The findings demonstrated that, while reflective practice is valued, its implementation across the department is inconsistent. Key insights emphasised the need for systematic integration of reflective practice into teaching and professional development, aligning it more closely with theoretical models such as **Schön's reflection-in-and-on-action** (1983, 1987), **Gibbs' reflective cycle** (1988), and **Kolb's experiential learning theory** (1984). Drawing activities were found to be particularly effective at uncovering tacit knowledge, revealing deeper levels of reflection that are often missed in verbal or written methods. This adds a significant new contribution to scholarship by reinforcing the importance of **multimodal approaches** to capture the full complexity of reflection in design education.

In conclusion, the research contributes new knowledge to the field by exploring reflective practice through the specific context of **design education**, a previously under-explored area. These findings underline the need for a unified approach to reflective practice, addressing current inconsistencies and enhancing both individual and collective learning for educators and students.

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# List of Appendices

# Appendix 1.   Primary and Secondary Citations: Reflective Practice.

The table below, adapted from Marshall's (2019, p.406) systematic review and synthesis of reflective practice across varied professional contexts, illustrates the textual data extracted from existing publications used to construct the 'cognitive theme' of the analysis [secondary authors indicate references used by the primary author]. These sources span 31-years (1986-2017) showing that reflective practice is a dynamic and evolving field, with ongoing contributions that build upon earlier work and adapt to new contexts and challenges.

| Quote | Primary Author | Secondary Author |
|---|---|---|
| 'An interactive and interpretive skill in the analysis and solution of complex and ambiguous problems' | Cushion (2016, p.4) | Schön (1986), Gilbert and Trudel (2001) |
| 'Reflection, as a specific form of thinking, differs from other thinking processes' | Nguyen, Fernandez, Karsenti, & Chaplin (2014) (2014, p.1179) | |
| 'Reflection is a cognitive process or activity' | Nguyen et al. (2014, p179) | Mezirow (1991) |
| 'Reflection is the process by which individuals transform their meaning schemes and meaning perspectives, resulting in transformational learning' | Rogers (2001, pp.40-41) | |
| 'The seven theoretical approaches revealed several common definitional elements. These included reflection as a cognitive and affective process or activity' | Rogers (2001, pp.40-41) | Mezirow (1991) |
| 'Reflection prepares tge individual for new experiences and leads to new skills, ideas and even new cognitive | Rogers (2001, pp.40-41) | |
| 'Reflection prepares the individual for new experiences and leads to new skills, ideas and even new cognitive maps [...] the process leads to a new interpretation involving a change in the individual's meaning schemes of a transformation of meaning perspectives' | Rogers (2001, p45) | Mezirow (1991) |
| 'Reflection is a means of idenitfying, scrutinising, and reconstituting the assumptions that underlie one's thoughts and actions' | Rogers (2001, p45) | Brookfield (1990) |
| 'Reflection can operate at a number of levels and suggests that to achieve a second element (reimagining), one must reach the higher, more abstract levels of critical reflection' | Ryan (2012, p.208) | |
| 'Reflection can operate at a number of levels and suggests that to achieve a second element (reimagining), one must reach the higher, more abstract levels of critical reflection' | Ryan (2012, p.209) | Kalantzis and Cope (2012) |
| 'Reflection can operate at a number of levels and suggests that to achieve a second element (reimagining), one must reach the higher, more abstract levels of critical reflection' | Stodter and Cushion (2017: 13) | Kalantzis and Cope (2012) |

# Appendix 2.  Models of Reflective Practice

The models below are collated from Finlayson's (2015) investigation of the definition of reflective practice, including the models that have been developed over time from 1938 to 2008, a 70-year period. This timeframe emphasises the depth and breadth of research into reflective practice, showcasing its development and the rich history of theoretical and practical advancements in the field.

| Date | Author | Model | | Temporal state | Socio-Cultural state |
|------|--------|-------|--|----------------|----------------------|
| 1938 | Dewey | 5-stage | 1. Problem idenfification<br>2. Problem observation<br>3. Develop hypothesis<br>4. Scrutinise the hypothesis<br>5. Test the hypothesis | Embodied self | Situational |
| 1975 | Kolb and Fry | 4-stage | 1. Concrete experience – carry out action and see the effect of the action in a given situation.<br>2. Observation and experience – understand these effects to see if they are repeatable for future experiences.<br>3. Form abstract concepts – understand general principles by which situations the effects may fall under.<br>4. Test in new situations – test the abstract in the new situations, start again at 1. | Embodied self<br><br>Autobiographical | Situational<br><br>Individual |
| 1983 | Schön | 2-stage | 1. Reflection-in-action<br>2. Reflection-on-action | Autobiographical | |
| 1984a<br><br>1984b | Kolb | 4-stage | 1. Concrete experience – still known as concrete experience (feeling).<br>2. Observation and experience – now known as reflective observation (watching).<br>3. Form abstract concepts – now known as abstract conceptualisation (thinking)<br>4. Test in new situations – now known as active experimentation (doing). | Embodied self<br><br>Autobiographical<br><br>Social self | Situational<br><br>Individual |
| | | 4-stage | 1. Diverging occurs when concrete experience and reflective observation are combined. People with a divergent learning style view concrete situations from many perspectives, and they create relationships between all kinds of aspects and perspectives.<br>2. Assimilating occurs based on the combination of abstract conceptualisation and reflective observation. Assimilators incorporate contrasting observations and reflections into an integrated explanation of theoretical model.<br>3. Converging is the combination of abstract conceptualisation and active experimentation. People with a convergent learning style combine theory and practice into opportunities for action.<br>4. Accommodating occur when concrete experience and active experimentation are combined. Accommodators achieve practical results b trying out things and seeking new experiences. | | |
| 1988 | Gibbs | 6-stage | 1. Description<br>2. Feelings<br>3. Evaluation<br>4. Analysis<br>5. Conclusions<br>6. Action Plan (no suggestion of implementation) | Autobiographical | Individual |
| 1995 | Johns | 5-stage | 1. Description of the experience<br>2. Reflection<br>3. Influencing factors<br>4. Could I have dealt with it better?<br>5. Learning-stage | Autobiographical (with a mentor) | |
| 1998 | Brookfield | 4-stage | 1. Autobiographical<br>2. Learner's Eyes<br>3. Our Colleagues' Eyes<br>4. Theoretical Literature | Autobiographical<br>Embodied self<br>Autobiographical | |
| 2001 | Rolfe, Freshwater, and Jasper | 5-stage | 1. What? – Describe<br>2. So What? – Discuss<br>3. Now What? – Identify | Autobiographical | Individual |
| 2008 | Francis and Cowan | 3-stages (that overlap) | 1. What?<br>2. What? How?<br>3. How? How Well? | Autobiographical | Individual |
| 2008 | Andrews | 4-stage | 1. Socialisation – exchanging knowledge<br>2. Combination – combining knowledge<br>3. Externalisation – sharing knowledge<br>4. Internalisation – disseminating knowledge into practice | Social self | |

# Appendix 3.　　The Search Strategy: Literature Review.

The information below details the search strategy employed to review the literature regarding reflective practice.

| Databases | Art Full Text (AFT) Arts and Humanities (full-text), CINAHL Plus (full-text), Education Research Complete (full-text) | | |
|---|---|---|---|
| | **Journal Title** | **Remit** | **Scope** |
| **NI** | Art, Design & Communication in Higher Education | Focusing on arts and media-based subjects, and encompassing all areas of higher education, this double-blind peer-reviewed journal reveals the potential value of new educational styles and creative teaching methods. | UK |
| **TOC (Wiley)** | British Educational Research Journal (BERA) | Internationally renowned association with UK and non-UK based members. It strives to be inclusive of the diversity of educational research and scholarship and welcomes members from a wide range of disciplinary backgrounds, theoretical orientations, methodological approaches, sectoral interests and institutional affiliations. | International |
| **New content (Taylor Francis Online)** | Curriculum Journal | Primary and secondary schools and further education. | International |
| **TOC** | Design Issues | Design Issues is a peer-reviewed academic journal covering design history, theory and criticism. | International |
| **TOC (Science Direct)** | Design Studies | International academic journal focused on developing understanding of design processes. It studies design activity across all domains of application, including engineering and product design, architectural and urban design, computer artefacts and systems design. It therefore provides and interdisciplinary forum for the analysis, development and discussion of fundamental aspects of design activity, from cognition and methodology to values and philosophy. | International |
| **In process / applying for student membership** | Design Quarterly Research | The Design Research Society is the multi-disciplinary learned society for the design research community, promoting excellence in design research globally. Recognising design as a creative act common to many disciplines; understanding research and its relationship with education and practice; advancing the theory and practice of design. | International |
| **NI (Taylor Francis Online)** | HE Research & Development Australasia | HERSA encourages the development of Special Interest Groups (SIGs) by facilitating opportunities to meet line-minded colleagues at each HERDSA conference. | International |
| **NI (Wiley Online)** | HE Quarterly (SRHE) | Higher Education Quarterly occupies a critical space in promoting research into higher education policy and practice internationally. | International |
| **NI (Ingenta Online)** | Journal of Writing in Creative Practice | The Journal of Writing in Creative Practice is the official organ of the Writing Purposefully in A&D (Writing PAD) network. It offers A&D institutions an arena in which to explore and develop the notion of thinking through writing as a parallel to visual discourse in A&D practice. The double-blind peer-reviewed journal aims to extend the debates to all national and international higher educational A&D institutions. | National and International |
| **New content (Taylor Francis Online)** | Reflective Practice | International and Multidisciplinary perspectives. | International |
| **TOC (Wiley)** | Review of education (BERA) | Review of Education is an international peer reviewed journal for the publication of major and substantial articles of interest to researchers in education and is expected to become a major focal point for the publication of global educational research. | International |
| **New content (Taylor Francis Online)** | Studies in HE (SRHE) | This journal has a wide-ranging interest in higher education and the social and institutional contexts within which it takes place, but gives particular emphasis to education as practice, with a view to influencing its development. | International |
| **New content (Taylor Francis Online)** | Teaching in HE | Teaching in Higher Education is an internationally recognised field, which is more than ever open to multiple forms of contestation. However, the intellectual challenge which teaching presents has been inadequately acknowledged and theorised in HE. | International |

# Appendix 4.  Template of Written Consent.

## Written Consent Form

**Research title:** An investigation of the understanding of reflective practice by academics in higher education art and design.

|  | Y | N |
|---|---|---|
| **Has the purpose of the research project been explained to you?** |  |  |
| **Have you been given an information sheet about the research project?** |  |  |
| **Have you been given opportunity to ask questions about the research project?** |  |  |
| **Do you understand that you can withdraw\* from the research or leave the interview at any time without giving an explanation?**<br><br>\* After data analysis has occured, withdrawal from the research is no longer possible. |  |  |
| **Do you understand that your anonymity for participation will be protected?** |  |  |
| **Do you understand that you have the right to ask for the recording (if used) to be switched off at any point?** |  |  |
| **Are you willing to be contacted after the interview e.g., for additional questions or a request to participate in a focus group?** |  |  |
| **Do you agree for any material you may share, such as drawings or other documents, to be used in the research?**<br><br>If YES, your anonymity will be supported and any reference to the material in the research will not be identifiable. |  |  |
| **If you wish to receive a summary of the research, please tick the Yes box.** |  |  |
| **I confirm that this information has been provided to be prior to participating in the research project.** |  |  |
| **I agree to take part in this research project.** |  |  |

Date        Participant full name and signature

................................. ........................................................................................

Date        Researcher full name and signature

................................. ........................................................................................

This research is undertaken as part of the Doctor of Education Research.
If you have any questions, please email the research or Research Supervisor.

# Appendix 5.    Interview Checklist (Participant Copy).

**Research title:** An investigation of the understanding of reflective practice in Higher Education art and design.

This semi-structured interview will start with a visualisation task followed by a set of questions that will be asked of all participants to maintain parity. The questions comprise ice-breakers and main questions to promote discussion of undergraduate and professional reflective practice.

**Start – Icebreaker questions**
1a) What is your current work job/role?
1b) How long have you worked in this role
1c) Have you previously worked in a similar role/s?

**Visualisation Task 01:**
On the paper provided, please make a drawing/diagram to depict your understanding of reflective practice* (time will be allocated to discuss).

**Main questions – Defining Reflective Practice**
2a) The study is focused on reflective practice – do you think there are differences between the terms: reflection and reflective practice?
2b) Can you define/talk to me about reflective practice?
2c) What do **you** think is the purpose/s of reflective practice?
2d) Were you taught or asked to do reflective practice yourself as an undergraduate (or at FE)?
2e) Do you currently, or have you ever, taught or assessed reflective practice?

IF YES: What level/s of study have you taught? Have you been given guidance, support or training to teach or assess reflective practice?

IF NO: skip Q3 and go to Q4.

**Main questions – Teaching reflective practice**

3a) How do you teach/ support reflective practice?

3b) Is there an agreed strategy for reflection in your place of work?

3c) Who has responsibility for teaching or supporting reflection?

3d) Can you name any benefits or challenges to RP?

**Main questions – Personal practice**

4a) Do you see yourself as a professional
   (academic counsellor/artist/designer/ other)?

4b) How and when do you do RP?

4c) Do you think RP is important/ relevant to your practice?

4d) What do you think are the key components/ characteristics to aid **your**
   reflective practice?

4e) What do you think is integral or best facilitates reflective practice?

4f) What are the benefits of doing reflective practice? And are there benefits
   and limitations?

**Review or repeat Visualisation Task 01**

**Exemplars**

5a) Can you give any examples of sources that you use to teach/support
   reflective practice? – Institutional documents or externally sourced books/
   tool kits/models/ other?

5b) Can you give any examples of best practice (student or personal)?

**End of interview:** Thank you for taking part in this research.

# Appendix 6.    Key Design Principles.

Design principles are guidelines that assist understanding information visually. By applying the principles, designers can create and interpret visualisations that are easy to understand and use (Agrawala et al., 2011) (image ref: Red Website, 2011-2024).



the principles of design
"ways to use the building blocks"

**EMPHASIS**
Creating a Hierarchy or focal point to guide the eye to a specific element first. Utilising colour, contrast, proportion and rhythm.

**BALANCE**
Weighting or arranging the elements within the image to create visual, even distribution of shape and space.

**UNITY**
Aligning all separate elements to work together in Harmony through pattern, balance and rhythm.

**CONTRAST**
Contrast can highlight differences or add a focal point by using opposing colour, shade or textures.

**RHYTHM**
Direct the eye through form with the use of repetition of shape, lines or colour and helps create mood.

**PROPORTION**
Or Scale, to use a base for the viewer to compare single elements to through size, dimension and space.

**VARIETY**
Utilising different shapes, colours and textures to keep overall image interesting. Also aids with creating a focal point.

# Appendix 7.     University Guidance for Reflection.

Guidance for staff to engage in reflection was limited to a short paragraph and two sets of bullet points.

## REFLECTION

There are two parts to reflection on each assignment task: encouraging students to reflect on their own performance and make themselves a personal action plan for the future, and tutor reflection on the effectiveness of each part of the assessment cycle from setting to the return of work. It can be difficult to make time for either, with assessment usually coming at the end of a busy year, but it is worth making the effort.

### WHAT SHOULD MY REFLECTION CONSIDER?

- Review the effectiveness of assignment tasks annually and report back to the programme team.
- Reflect on unit level data to review assessment outcomes in relation to awarding gaps, good honours and graduate outcomes.
- Review assessment across each level annually, using results and student and staff evaluations as a basis for discussion.

### WHAT MIGHT STUDENTS REFLECT ON?

- Encourage students to reflect on their previous assessment performance before beginning a similar assignment, even if in a different unit and at a different level.
- Encourage students to engage with feedback and seek clairyy where needed.
- Encourage students to reflect on feedforward relements.

# Appendix 8.  Study Support Podcasts Supporting 'Reflection'

Two podcasts were available to support understanding and engaging in reflection: Being Critical (15-mins.) and Reflection: An Introduction (10-mins.):

## 1. Being Critical (15mins):

If you'd like to understand what reflection is, why we do it, and how to start recording and writing reflections using reflective models, then please do check out our additional workshop on reflection called reflection an introduction. Learning objectives. By the end of this screencast, you will have debated some common features of critical reflection identified critical questions using a descriptive reflection response and appraise the use of critical reflection in a reflection paragraph. Let's begin with a brief overview of what reflection is and its purpose. Just a reminder that our central workshop reflection and introduction goes into more depth on what, when, why and how. In terms of using reflective models. In this session we will focus on the how box in terms of generating critical thinking and writing through synthesis and evaluation to practice a more in-depth reflection. Firstly, let's look at what reflection is constantly thinking about our experiences, actions, feelings and responses, and then interpreting or analysing them. In order to learn from them. Reflection when reflection happens in the moment of following learning, setting objectives or plans projects are applied practice reflection, why to understand how we learn appraise practical performance policies and standards and also for your own personal progress which could be related to study or work outcomes and to help you manage and promote change, reflection. How do we do this? This could be through learning beh, blogs, blogs, visual representations, tables, maps and audio by applying reflective models and critical thinking and writing skills such as analysis, synthesis and evaluation will focus on how as the session progresses, activity one critical reflection Who do you agree with most and why? Read the statements in the three boxes below? Think about which you agree with the most and why do you agree with it? You may want to pause the screencast at this point and press play when you're ready to continue. Okay, have a look at the boxes and think about what you most agree with. Looking across these three boxes. The yellow box number one is mostly descriptive. The blue and pink boxes two and three are starting to explain critical reflection, but I'm missing some important points. Let's feedback on these boxes in a little more detail. Starting with number one, the yellow point. This explores the successes as well as explaining what didn't work. And this is important for a thorough measure of events. But this in many cases is just the starting point. of reflection. Additionally, reflection is also thinking about behaviours, morals, values and attitudes to as well as actions, posts, written documents and resources. But identifying these and the associated issues are often step one. There is much more that we can do to be critical in a reflection. Using it citing reflective models can help us to examine and explore negative and positive aspects of reflection. And this demonstrates analysis. Now let's move on and look at box two, which is the blue box. This is a base for being more critical for a comparative approach for example, using the perspective of other people. However, it's important we start to use research to contribute an understanding of practice behaviours plans, and what research drives our practice as well. This commonly refers to making and promoting change, but not personnel group policy or thought change. setting new actions are mostly a fundamental stage of reflection. But we can also use a comparative approach to challenge and set contingencies for action also. Now let's move on and look at box three. The pink box. This is critical, although theory from research is not the only evidence you can use. This could also include policies, standards, procedures, and models. These can be cited and used in a layered approach. So for example, adding supporting evidence and evidence which supports our challenges, events or ideas. This is known as synthesis, and this will deepen your reflection. This is good practice as it shows we are evidence based in our thinking and practice. But to be critical, we can also evaluate the evidence and say well we may need to be cautious or mindful about ideas in practice, or where there are strengths and flaws in the evidence that guide us. This is an evaluation. For more creative subjects. We might talk about how research, objects or events have influenced our decisions and inspired us or not, and also discuss

the strengths, flaws and implications of prior work.

5:19: Reflection What are tutors looking for? This model distinguishes between the fundamentals of reflection, which are shown in the pink box and what makes a reflective assignment more critical, which is shown in the yellow box. The yellow box pulls together the skills discussed during the last slide. You may want to pause the screencast at this point so read through these boxes and press play when you're ready to continue. Here you can see that stating the event and the associated emotions is starting to analyse and exploring what worked and didn't work is starting to evaluate. But for deeper criticality, we can do the elements in the yellow box, such as using reflexive models to examine and explore plans, actions or problems and guide practice. Compare and contrast events emotions with evidence, layer and stack evidence for a critical review, which is synthesis and finally develop and appraise theories, actions and emotions and future plans.

6:32: The key concept of reflection is synthesis. So, let's understand what this term means. Synthesis is grouping and combining sources presenting similarities, differences overlaps between ideas, methods and practices. How is it done by presenting multiple sources using linking words between sentences? Why do we do it? To present a wider overview of findings opinions and ideas plus, to show depth of analysis before setting actions, drawing together different sources and synthesising these will help you to deepen a reflection evaluation. Following the synthesis of ideas, we can take a step further to evaluate the idea or its source for its reliability, credibility and trustworthiness. The library have a video on the C R A P model which highlights how to evaluate the sources. Evaluate evaluation is assessing If sources are reliable. And we do this by measuring the successes or significance of the work, reporting on the pros and cons of ideas, theories, methods and products, highlighting the strengths and flaws of a source. Why do we do it? We do evaluation to show criticality and document the benefits, drawbacks and potential opportunities following research and practice.

8:04: Activity to develop in points beyond description. Study the text in the blue box below. Try to create some critical questions which will promote deeper reflection and effective use of evidence. Try to create questions related to synthesis and evaluation. You can rewind this screencast to remind yourself of what this involves. Example critical with questions related to analysis, what evidence interprets or explains my reflections? Which reflective models helped me to examine my reflections deeply? How can I relate theory to my practice? What evidence supports the solution and what evidence interprets my reflections? You may want to pause the screencast at this point and press play when you're ready to continue. critical reflection adding depth. These questions may be similar to some of the questions that you tried to generate for yourself in the previous activity. Let's run through some example of questions which take reflections beyond the description of events starting firstly with analysis. What evidence interprets or explains my reflections, which reflective models helped me examine reflections deeply how can I relate theory to my practice? What evidence supports solution? Synthesis: what further evidence is there to support my interpretation's solution or practice? What evidence is there to challenge my interpretations or solution? What are the perspectives of colleagues, stakeholders or customers? For example, evaluation? What are the limitations of the reflective models I have used? What might be the implications on positive impacts of my solutions or new knowledge? What are the strengths and flaws in the evidence I have used by sauce and in terms of my ideas. These questions can be applied to most disciplines to add depth to the entries of reflective journals, or blogs or any other recording that you might do. There are reflective models that do similar, but this model puts into perspective how to demonstrate each of the major critical skills by answering some straightforward questions. This is not an exhaustive list. It's important to compare and contrast reflexive models to see what new possibilities there are for wider thinking. But these are examples of how to be evidence based and thorough when you're reading and planning your work.

10:33: The language of critical reflection. The language you use will vary depending on the part of the reflective cycle that you're writing. For example, for your description, you may use the first person such as I or my or other personal pronouns when you're talking about yourself and your responses when you're analysing use the third person so for example, the evidence suggests that when you are synthesising, you might use linking words or phrases such as for instance similarly, unlike just as are in contrast to these helped connect your ideas to the ideas of others, evaluation, use proper nouns such as names and third person. So talking about someone's surname, or referring to the researchers or the author, when you are evaluating sources and including evidence from the literature. Setting actions, use language to show connection and conclusion. So for example, you could say something like as a result of due to, therefore, or because,

11:48: analysis, synthesis and evaluation in reflective writing. This is an activity to test your knowledge and

understanding. In: a moment, we'll show three statements on the slide. When you've read one statement, press pause on the screencast and then press play. For each statement you should decide if it's demonstrating analysis, synthesis or evaluation. Let's start with statement one. Once you've read the statement, press pause, and press play when you're ready to continue.

12:25: This statement shows evaluation. Now let's have a look at Statement two. Again, press pause, and press play when you're ready to continue.

12:42: This statement is showing synthesis a connection to another source. Now, let's have a look at the final statement. Again, press pause and press play when you're ready to continue. This statement is showing analysis.

13:08: Over the next few slides, we'll look at an example of a writing frame called to write a ==critical reflective== paragraph. This frame can support structured ==reflective== paragraphs using the critical writing skills. You may not always be asked to ==reflec==t in this way. So you may be asked to present notes by reflexive ==model== format for example. However, generally this can support the flow of a collection of notes, and it helps you to answer the critical questions we've explored already, such as incorporating analysis, synthesis, and evaluation into your ==reflection==s. Let's briefly look at the different aspects of the data ==model==. Firstly, we describe the experience or the event that happened, what was your vision and what you learn? analyse what worked well. What didn't work in practice, what were the challenges faced How did you feel? What expert knowledge interprets all of this? What expert knowledge supports and challenges ideas? This is synthesis. Recommend? What are the solutions or what you would do differently next time? What theory of theories support actions evaluate, state the significance or impact this would have on practice skills, learning your skills and knowledge. What are the strengths and flaws in the evidence you've used by sauce and in terms of your ideas? We'll explore and use dare in the next slides. Activity three, appraise the below paragraph on structure, think about the use of data here, describe, analyse, recommend or evaluate. You may want to refer back to the stages of the data ==model== on the previous slide to help you. I'll refer back to the critical questions that we went through earlier in the presentation. Use these to appraise the below paragraph on structure. As well as thinking about the use of data highlight any good practice and areas for development in structuring ==reflection==. You may want to pause the screencast at this point and press play when you're ready to continue. Now let's look at that paragraph again, here it is we organised according to the data writing frame. There are some good points to this writing. There is a description of events, theories linked to learning and practice and expert knowledge is there. There are some areas for development. There is no mention of a ==reflective== ==model==, and no evaluation of evidence or one practice. Evidence to challenge interpretations could have been included, as well as some information about what their plans are moving forward. So action planning and a consideration of what might be the implications or positive impacts of solutions on new knowledge by applying the derisive frame. This helps us to identify areas for development in our own writing. Thinking about the various examples that we've looked at in this screencast such as the critical questions on the use of the data ==model==, you may want to try an independence activity. This could be something like creating a journal entry about a work or a learning event, a form of work or practice or something that you've learned recently. Try describing the event in your associated emotions. You might want to use free writing for this by writing non-stop for three minutes on your topic. Try creating some critical questions relevant to your discipline area, research some responses and generate some notes. Use the ==critical reflective== Paragraph Writing frame ==model== to organise your notes into a coherent paragraph. We hope that this screencast has helped you to think about developing your ==reflection== more deeply. If you do have questions that you would like to follow up. Remember that you can get in touch with the learner development service for help. Your writing. If you'd like to get in touch, call or email us, your contact details are available on the site. Thank you for watching.

## 2. Reflection: An Introduction (10mins):

I will be chatting about reflection and thinking about what it is, why we do it, the benefits of doing it and the different ways the Academic Skills team can help you to develop your reflection skips. Firstly, it's only fair that we talk briefly about how we reflect in our current role and why we do it. Lou, do you want to go first? Thanks.
0:30

So really, I reflect on the resources I produce and the way I deliver that information to students and staff. I do this both through systems that our team have in place like peer observation, but I also just browse through resources, remembering how I felt about how things went and what the response was from students. I add this to other information such as comments from staff and any feedback from students to think about any changes I might need to make. I also frequently look back on intense or difficult conversations with people to see if I could improve my communication and use various texts to inform anything I might want to do differently. How about you orally I use
1:11

reflection in a similar way as you do. One challenge for me can be to record the feelings and thoughts that have occurred in a specific situation as soon as possible and not leave it too long before documenting it. When I do it straight away my notes are much more complete. emotions and thoughts can be very fleeting so jotting them down or recording them on a device very soon after an event helps me to go into much more depth when examining the situation later on. So that was for us as academic and studies case tutors. But there are a few reasons why we are talking about reflection. One of these is that it is the focus or part of loads of course assignments. Sometimes it's not obvious that it's reflection that is needed, as other words and phrases can be used. Instead, we've seen briefs using reflection, our reflection with an X, critical reflection, review, consideration, assess, think about and many more words, but all of them wants students to reflect. Louise, why don't you tell us a bit more about what it is?
2:32

Well, reflection isn't just about emotional response, but having a more analytical critical eye on something that's happened. It's a way of thinking about that something, whether it's what you did or saw or experienced whilst at university or on placement or somewhere else. Or it could be about thinking how something applies to you and your discipline, such as a process and how useful it would be in practice. So, what comes next or really often
3:01

it involves focusing on how you felt and thought at the time to see if that affected what happened or your perception and also how you might think differently about something once some time has gone. Is it the same as it changed and why? And although it May 1 sounds very introspective and self-focused. Your experience, feelings and thoughts are only a starting point. One important step after acknowledging your understanding of this experience, is to confront and contrast it with other views. It can be in books or journal articles, you read testimonies of people involved in that same situation. The back you got from your supervisor if you were on placement, be genuinely interested in others views to re-evaluate the situation. The point is to take a step back and get out of your own head and heart to envisage something in a different light. So of course, it doesn't include the more emotional element and just focus on once on the web seem to go well and what could be improved. Again, this could be about your behaviour or attitude are other reactions to whatever happened. It really is important to remember that reflection is about what went well, so that you can repeat something in the future. If you were in a situation where an experiment didn't go according to plan, you kept calm and were able to control the situation. It means that you appreciate what you do right to fit it forward, as well as identifying what went wrong and considering how to change things for the better. But how would you do
Unknown 4:53

that? There are lots of ways to find out why things happened and to start thinking about how to change things. You can do some reading to someone with more experience such as a supervisor or tutor. Think back to your previous experience to see if that can help. For example, you kept calm during the experiment, because you'd worked on Saturdays at a close shop during the sales. So, we're used to stressful situations. Understanding what happened. We'll help you work out how to move forward and decide what you do differently and what you do the same. And once you know that you can take steps to ensure you've got the skills and knowledge for the next time

the same or similar situation happens again. You can put together an action plan. Is there anything that can help students with reflecting?

5:42

Yes. Whether this seems straightforward or tricky, you might find it useful to follow a reflective model. This is just a fancy way of following a process of prompts are the stages to go through to reflect effectively. These are great to make sure you bring enough depth to your reflection. Depending on your course assignment and personal preference. Different models will work for you. It's about choosing the right one for you whether you are looking at your own practice or learning, research process, experimental results, observing a process or anything else. Some popular ones are Gibbs, Schön, Johns, Rolfe and Brookfield, whichever you choose, remember that reflection is a cycle. Something happens you learn from it; you decide on some changes, something happens where you apply the changes, you learn from it, etc. We started with our own ways of reflecting at work but is this something businesses want in their employees. Companies love reflective employees. They want Him to cast that critical eye on themselves in terms of constantly looking how to improve their own work, or the working environment, or how processes could improve and to reduce repeating mistakes. Everyone wins.

7:15

Reflecting helps students in many ways in their professional life, as you've just mentioned, but also in their time at uni as they reflect on the strategies that work best for them to learn their subject. study independently or work with classmates for example, also, as reflection focuses on the process, and looks at how things feel. It can help students to pay close attention to what inspires them and any changes of inspiration to which is very useful to guide you to your next step. Which could be the next place to go to a club to join to volunteer at an event or a job to aspire to. It's also a great tool to get more in touch with your own creativity as you will start connecting ideas more and know why you're doing so. So as a budding artist or designer or social worker, architect, engineer, etc. Think about what this could bring to you.

8:23

Another interesting benefit of reflecting is that it can progressively boost your confidence as you develop this habit to look back to see both your strengths and vulnerabilities. facing these is a first step to make sure you feel okay. We're only human before even attempting to change how you do things. Finally, remember that when you reflect on an event, a placement, your role in a project or anything else. You're evaluating what happens to you in that very context. It is not a judgement about your whole self. You both take responsibility for what you did, and step back and look at the bigger picture. So, you can separate yourself from the circumstances and carefully consider others' own experiences and knowledge to avoid taking things too personally.

9:15

So basically, reflection can empower us to change some aspect of our life in a specific context. Right, that's great, but this is only a few minutes of information. Where can students go to get more info about reflection?

Unknown 9:33

We have two dedicated Moodle screencasts on reflection. One is on the process and the other is how to be critical and apply to assignments. Students can access them by going up to their own Moodle page, clicking on Student Help, and then on academic study skills. There are loads of screencasts on there, but these two are behind the workshop style.

9:57

Brilliant. Don't forget we also do those topics live through our teams and on campus workshops. You will be hearing about these really soon via email. We can also have a chat with students about reflection in the one to ones we have that on teams campus or the form and when students have a draft of their reflective assignments we can help with providing email feedback and they can email any questions to study skills@mmu.ac.uk

10:31

Well, I really enjoyed that chat about reflection, and I hope all of you found it useful. Good luck with your studies and any questions. Bye.

# Appendix 9.    Design Department Unit Learning Outcomes.

The content below includes a university-wide overview of Levels 3-7 Learning Outcomes (units comprising 15, 30, and 60 credits) from Teacher Training, Professional Standards Framework and the Design Department. The Teacher Training and PSF were included in the A Priori content analysis.

A content analysis was undertaken to identify the prevalence of 'reflective practice' within academic's teacher training for learning and teaching in Higher Education and learning and teaching to undergraduate students within the design department.

The portrait-orientation pages show a departmental overview; the following landscape pages show programme-specific views.

**ACADEMIC TEACHER TRAINING**
Postgraduate Certificate in Learning and Teaching in Higher Education

**CORE UNIT          60 Credits**
This unit is assessed by the completion of a Practice Journal (3200 – 4200 words): a structured, written, critical reflection on your teaching, aligned to the Professional Standards Framework (PSF). The LTA unit aligns to Descriptor 2 of the PSF, meaning that upon successful completion participants will be awarded Fellowship of the Higher Education Academy (FHEA), as well as 30 Master's level credits.

1. Critically analyse your philosophical approach to teaching learning and assessment set within the context of [multidisciplinary] theory and/or perspectives.
2. Design, plan and deliver an episode of inclusive learning demonstrating awareness of the diversity of your learners' needs.
3. Critically reflect upon individual practice in relation to the UK Professional Standards Framework.

**1 of 2 OPTION UNITs          30-credit**
1. Critically reflect on their participation in practice-based professional development activities.
2. Analyse appropriate literature to inform their professional development activities and practice.
3. Create an informed action plan that evidences the rationale of intended changes to their own practice and/or workplace improvement activities.

**Fellowship of the HEA award**
Fellowship (Descriptor 2) is for individuals whose practice with learners has breadth and depth, enabling them to evidence all PSF 2023 Dimensions. Effectiveness of practice in teaching and/or support of high-quality learning will need to be demonstrated to meet Descriptor 2 through evidence of the following three criteria statements:

• D2.1 use of all five Professional Values
• D2.2 application of all forms of Core Knowledge
• D2.3 effective and inclusive practice in all five Areas of Activity

Professional Values. In your context, show how you:
• V1 respect individual learners and diverse groups of learners.
• V2 promote engagement in learning and equity of opportunity for all to reach their potential.
• V3 use scholarship, or research, or professional learning, or other evidence-informed approaches as a basis for effective practice.
• V4 respond to the wider context in which higher education operates, recognising implications for practice.
• V5 collaborate with others to enhance practice.

Core Knowledge. In your context, apply knowledge of:
• K1 how learners learn, generally and within specific subjects.
• K2 approaches to teaching and/or supporting learning, appropriate for subjects and level of study.
• K3 critical evaluation as a basis for effective practice
• K4 appropriate use of digital and/or other technologies, and resources for learning.
• K5 requirements for quality assurance and enhancement, and their implications for practice.

Areas of Activity In your context, demonstrate that you:
• A1 design and plan learning activities and/or programmes
• A2 teach and/or support learning through appropriate approaches and environments.
A3 assess and give feedback for learning.
• A4 support and guide learners.
• A5 enhance practice through own continuing professional development.

**DEPARTMENTAL VIEW**
**ACADEMIC LEARNING & TEACHING (UNDERGRADUATE).**
The Learning Outcomes below are a random selection across Levels 3-6
comprising units of 15, 30 and 60 credits.

**Learning Outcomes Level 3**

| | |
|---|---|
| L3 Foundation Diploma in Art & Design: Final Award | 120-credits |
| Developing Specialist Practice | 46-credits |
| Diagnostic Investigation into Creative Practice | 29-credits |
| Consolidating Practice | 45-credits |

1. Research and contextualise creative ambitions within specialist practice
2. Apply research methodology and use technical skills and practical experimentation to develop ideas within a specialist practice
3. Use self-reliant learning strategies to develop ideas and solve complex problems within the context of specialist practice to inform and realise creative solutions
4. Use critical evaluation and reflective skills in order to take responsibility for own learning and development
5. Review and apply presentation skills in order to communicate their creative practice to a selected audience.

**Learning Outcomes Level 4**

L4 Fashion: Fashion Practice                15-credits
1. Articulate original fashion ideas and materiality effectively, appropriately and accurately, using a range of methods to communicate and develop design practice
2. Use creative thinking to produce innovative design, textile and make outcomes in response to research and experimentation

L4 Graphic Design: Visual Thinking                30-credits
1. Source visual material that informs the development of their work
2. Develop a creative visual idea
3. Make a visual presentation of creative design work
4. Explain how their decisions have been reached

L4 Illustration: Sense of Place                30-credits
1. Find starting points for visual work and to generate and develop their own visual themes and interests
2. Further develop manipulative, perceptual and technical skills in drawing, animation and reprographics
3. Engage with learning tasks and demonstrate the rudimentary requirements
4. Provide evidence of commitment to study through the production of a body of work

L4 Interior Design: Occupations: Professionalising & Presentation                15-credits
1. Identify cultural and contextual issues appropriate to contemporary Interior Design Practice in relation to a set brief.
2. Develop and rationalise a personal design process through creative enquiry and experimentation
3. Translate ideas and resolve design problems using drawing and model making skills
4. Develop communication using technical drawing conventions and visualisation skills.
5. Reflect on and evaluate their own performance and that of their peer group.

L4 Textile Design: Origins                30-credits
1. Actively engage in visual research
2. Make connections between practice and research
3. Manage workloads and meet deadlines
4. Comply with all health and safety requirements or guidelines for this unit

L4 Three-dimensional Design: Principles and Approaches to Making   30-credits.
1. Produce a range of material and process investigations.
2. Engage with a range of research activities.
3. Make connections between 2D and 3D investigations.
4. Record and describe activities undertaken.

L4 Contextualising Practice 1: (ALL DESIGN PROGRAMMES)                30-credits
1. Evidence of thinking critically on contexts of art/design/media practice by building your own argument
2. Evidence of finding a number of research sources and using this research in your analysis.
3. The work communicates your ideas and is relevant to the assignment.

L4 *Nexus* (ALL DESIGN PROGRAMMES)                30-credits
1. Generate a body of work in response to a given brief, environment or situation
2. Demonstrate the development of personal practice
3. Identify skills and attributes for effective collaboration
4. Present outcomes and articulate ideas to a peer audience

**Learning Outcomes Level 5**

L5 Fashion Art Direction: Anticipating                30-credits.
1. Establish specialism and vision for Fashion Art Direction through experimentation with relevant materials/ media, techniques and processes.
2. Identify the critical, contextual, conceptual dimensions of their individual practice
3. Engage with critical thinking/ reflective practice in response to feedback.
4. Apply positive responses to critique.

L5 Fashion Art Direction: Refining                30-credits.
1. Demonstrate critical understanding of social, environmental and design community
2. Develop awareness of contacts and networks to support professional practice for FAD
3. Form effective methods of working in a creative design collective environment
4. Develop a range of concepts to inform the production and presentation of varied Fashion Art Direction
   design outcomes.

L5 Graphic Design: Visual Communication 1: Disruption                30-credits
1. Locate and analyse a diverse range of research material that acknowledges unconventional and
   experimental approaches to visual communication (knowledge and understanding)
2. Formulate a variety of creative approaches in the development of visual communication ideas (conceptual
   development)
3. Produce and present a variety of relevant finished design artefacts in print and digital media (applied
   practice)
4. Analyse and evaluate their creative responses in the context of using unconventional approaches to realise
   their ideas (critical engagement)
5. Develop relevant technical skills independently (generic skills and studentship).

L5 Illustration: Experiment 1                30-credits
1. Engagement with a methodology that recognises research, exploration and experimentation within their
   work
2. Develop an understanding of the relationship between words, sounds, their meaning and visual
   interpretation.
3. Develop ongoing critical reflection and evaluation of their own practice.
4. Demonstrate sustained engagement, progress and care in the work.
5. Recognise the progression of ambition and personal creativity in their visual practice.

L5 Three-Dimensional Design: Tradition and Innovation                30-credits
1. Select and analyse relevant research into historic precedent from a variety of sources.
2. Evaluate and respond to research in order to develop concepts, ideas and outcomes.
3. Show evidence of a questioning approach to the use of material and process.
4. Employ appropriate visual presentation methods to communicate the context for practice.
5. Reflect upon and appraise the creative journey and identify future direction.

L5 Contextualising Practice 2 (ALL DESIGN PROGRAMMES)                30-credits
1. Analyse and evaluate cultural and critical contexts as relevant to your area of study.
2. Evaluate and critique information from a variety of sources pertinent to your cultural and critical context.
3. Express your ideas with fluency using appropriate strategies of communication.

L5 Nexus (ALL DESIGN PROGRAMMES)                30-credits
1. Demonstrate creative responses through a body of work related to project choices.
2. Evidence the ability to work within unfamiliar contexts.
3. Articulate and effect practice through collaboration.
4. Demonstrate an understanding of interdisciplinary perspectives and the professional world.
5. Present outcomes to an informed audience in an appropriate form.

**Learning Outcomes Level 6**

L6 Fashion: Collection                60-credits
1. Demonstrate an understanding of the professional standards within their fashion practice, through the
   selection, development and application of appropriate materials and creative processes.
2. Employ a broad range of creative and critical approaches to the full processes of design and make, through
   a flexible, experimental, speculative and critical enquiry.
3. Express a clear creative identity through innovative approaches to design communication, demonstrating a
   strong visual vocabulary, reflective of industry practice.

L6 Interior Design: ID4: Major project                60-credits
1. Create a challenging, resourceful and dynamic self-initiated brief responding to cultural and
   contextual issues
2. Identify, select and define effective methodologies to inform interior design practice
3. Synthesise the testing and resolution of ideas through a substantial and rigorous self-generated
   design process
4. Communicate design proposals convincingly and professionally through sophisticated and detailed
   technical drawing.
5. Convincingly demonstrate a high degree of professionalism through the visual and verbal
   communication of final design proposals

L6 Textile Design: Practice                60-credits
1. Test ideas by creating conceptual, material and/or design solutions to negotiated project briefs.
2. Manage resources and expand networks to support learning.
3. Demonstrate professionalism and ethical awareness.
4. Communicate and present ideas in a variety of forms to a range of audiences.
5. Develop and apply critical, reflective and analytical skills.

L6 Contextualising Practice 3 (ALL DESIGN PROGRAMMES)                30-credits
1. Develop a research question based on a variety of primary and secondary sources as pertinent to
   your area of practice
2. Reflect, evaluate and synthesise cultural and critical contexts as relevant to your area of practice.
3. Communicate fluently and with confidence a well informed and articulate position in relation to your
area of practice.

<u>L6 Nexus (ALL DESIGN PROGRAMMES)</u>                    30-credits
1. Demonstrate artistic, academic and/or professional methodology.
2. Articulate a resourceful approach to personal practice.
3. Produce a body of work to a professional level within an identified context.
4. Evidence a considered approach in the dissemination of works to an external audience.

<u>University-wide view</u>
Course credits (30-credits) attainable when 300-Valor points have been achieved.

1. Manage your own personal and professional development.
2. Make connections to your main programme of study
3. Communicate the value of experience to a relevant audience
4. Place learning in a broader academic or professional context (30-credits only)
5. Plan for future development.

# Appendix 10.    Content Analysis: Postgraduate Material.

| Recording unit | Level/target audience | Doc. Type and length | Doc. name | RP Word type | Word frequency | Word location | Context of the word – see example quote (Column N) | Affect/emotional inference | Extract |
|---|---|---|---|---|---|---|---|---|---|
| **Prog. overview** | Available to internal and external audiences (staff and students) | Uni website (approx. 300-words) | Page title: postgraduate certificate in LT in HE. | critical reflection | 2 | 'Unit Topic and Delivery'; 'unit assessment' sections. | Clear identification that reflection (critical reflection, not just 'reflection'; use of the word 'critical' emphasises that deeper and contextualised/ historical/current thinking is promoted) as part of the programme. | formal – course guidance | |
| | | | | reflective notes | 1 | Learning approach throughout the course | Guidance as a way of working and a skill to be developed on the course. | formal – course guidance | |
| **Unit LOs** | PG students (inc staff in the selected university) | Extracts containing the ULO's from Unit Spec doc or listing on course webpage | Unit Specification document / or listeing on course webpage | critically reflect | 2 | 1. LO3/3 in the Core unit of the course. 2. LO1/3 in one of the two Option units on the course. | LO – Knowledge/skill to be attained. | formal – LO | CORE UNIT LO3: *'Critically reflect* upon individual practice in relation to the UK Professional Standards Framework'. OPTIONAL UNIT: LO1 *'Critically reflection* on their participation in practice-based professional development activities'. |
| | | | | critical reflection | 2 | | LO – Knowledge/skills to be attained. | formal – LO | COURSE DESCRIPTION: 'LTA is the core unit on the PGC LTHE. This unit allows learners the opportunity to develop their practice through *critical reflection* and contextual debates informed by relevant theories and perspectives. Participants will consider their own teaching practice in the context of the wider he landscape, from both the teacher and learner perspective'. UNIT OF ASSESSMENT ' This unit is assessed by the completion of a Practice Journal (3200–4200 words): a structured, written, *critical reflection* on your teaching, aligned to the Professional Standards Framework (PDF)'. |
| **PSF (External: Advance HE)** | Students the course + those who complete a PgCert of other CPD | PDF accessible from AHE website. 12pgs. | Professional Standards Framework 2023 | reflective | 2 | p2/12 cited 5th in a list of 8 points regarding the 'Purpose of the Framework' | Cited as one of four approaches to teaching and/or supporting learning in academic or pforessional settings (see quote further along) | formal – course guidance | |

# Appendix 11. *Valor* Programme Learning Outcome 01 and Assessment Matrix.

A content analysis of Valor's assessment rubric of learning outcome 1 was executed, which focused on reflecting on the value of the learning experience. It focuses on key elements such as experience, reflection, themes, value, and communication. There is a subtle association between the rubric and Kolb's (1984) experiential learning cycle, suggesting that it implicitly incorporates this framework. See next page:

| Learning Outcome | Fail | Borderline Fail | 40-50 | 50-60 |
|---|---|---|---|---|
| **Descriptive terms** | Lacking, detrimental | Limited, Superficial | Satisfactory, Sufficient, Adequate, Descriptive | Confident, Consistent, Thoughtful, Accurate, Coherent |
| **LO1 Reflect upon and communicate the value of your Valor experiences** | Failure is having not met this LO | You have described your **Valor** experiences without examining **notions of value** or engaging with **overarching themes**. Your communication is adequate but limited. | You have outlined your *Valor* experiences and connected this to a **sense of value**. There is a **theme** identified across your experiences but **you have not analysed or explained** this. Your concept of **value** is not clear or has been **assumed rather than analysed**. Your **communication** is adequate but limited. | Your outline of your *Valor* experience has some elements of a coherent **story** about what you did, and some references to its valye. You have tried to identify a **theme** and have made some **reflections** based on this. Your **notion of value** is defined, but you have not explored this particularly deeply. You have some understanding of **communicating your message**, but your submission does not consider the needs of its audience. |
| **Common Characteristics** | | Without value<br><br>Without themes | Value<br><br>Theme (not analysed)<br><br>Communication | Story<br>Value<br><br>Theme (tried to identify)<br><br>Communication + message |

# Appendix 12a.   Design Programme's Assignment Briefs.

From the content analysis of the assignment briefs, there were fluctuating references to reflective practice. Fashion, Fashion Communication (FC) and Interior Design, and the shared units: Contextual Studies (CS) and Nexus (NX) are detailed in the table below. These have clear linkages to praxis: the consistent use of reflective terminology throughout the documents, coupled with the integration of experiential and tacit practices in the LOs and assignment briefs, indicates a robust understanding of the interplay between theory and practice in design education.

See overleaf.

| KEY | FC — Fashion Communication | L — Lecturer |
|---|---|---|
| Different colours are used alternately to differentiate the design programmes and shared units. | ID — Interior Design | SL — Senior Lecturer |
|  | CS — Contextual Study | AL — Associate Lecturer |
| Different shades of the same colour differentiate levels of UG study (L4-6) within the same programme/unit. | NX — Nexus Unit | PL — Programme Leader |

| | Frequency | Location | Context | Affect | Author status |
|---|---|---|---|---|---|
| | 7 | p9<br>1 x in main brief | Linked to the transitive verb | Objective | SL |
| | 6 | p17-20 | SUBJECT SPECIFIC grade descriptor | Formal | |
| | 6 | p17-20 | GENERIC grade descriptor | As above | |
| | 1 | | 6. Annotating ideas | Objective | |
| | 5 | p5/9/14/15 | in LO5 (repeated) and SOW (p9) | Formal | |
| | | p11 | in SOW Wk6 | Objective | |
| | | p13 | in guidedance for sketch-booking (pt 6/6) | Informal | |
| | 7 | p10 | Linked to the transitive verb | Informal | AL |
| | 6 | p16-18 | in SUBJECT SPECIFIC grade descriptor | Formal | |
| | 6 | p11 x 1 | under time-management / sketch-booking | Informal | |
| | | p16-18 x 5 | GENERIC grade descriptor | Formal | |
| | 8 | p7 Brief 2;<br>P11 Brief 4;<br>p13 x 2 Brief 5,<br>p18; p 19 x 3 | | Formal | SL (PL) |
| | 1 | p5/20 | | Informal | |
| | 4 | p18 x 2 | | Informal | |
| | | p19 | | Informal | |
| | | p19 | | Informal | |
| | 2 | p18 x 2 | | Informal | |
| | 2 | | | Informal | L |
| | | | | Formal | |
| | 2 | | | Formal | |
| | | | | Informal | |
| | 1 | p1 | | Formal / LO | L |
| | 1 | p2 | | Informal | |
| | 1 | p1 | | Formal / LO | |
| | 1 | p2 | | Guidance | |
| | 2 | p1 and in Assessment sheet p3 | Cited LO4 | Formal / LO | SL (PL) |
| | 1 | p3/3 | Cited to align with LO2 | Informal | |
| | 16 | | | | SL (PL) |
| | 27 | | | | |
| | 9 | | | | |
| | 2 | | | | SL |
| | 1 | | | | |
| | 1 | | | | SL (PL) |
| | 1 | | | | |
| | 11 | | | | SL |
| | 10 | | | | |
| | 5 | | | | |

# Appendix 12b.  Level 4 Design Programme Assignment Brief.

In the pages of the Level 4 (first year) Design brief below combining theoretical exploration with practical activities and reflective analysis, students are likely to develop a deep understanding of design principles and their application in real-world contexts.

<div style="border:1px solid black; padding:1em;">

## A Discovery Of…

### Principles and approaches to making

**Unit code** X_X_X_XX

20XX/XX

30 credits

**"My hands are stronger than my brain"**
*Ruddt Peters*



Unit staff:
  Unit leaderX
  Ceramics: X
  Glass: X
  Jewellery: X

Deadline Friday 15th  XXXX 1pm (physical work)
January 8th 9pm online

1

</div>

**Indicative Assessment Criteria** (what you will be assessed on in relation to the project tasks and learning outcomes)

1: Demonstrate the ability to investigate a range of making approaches
2: Evidence the application of visual research materials
3: synthesis of ideas through making processes
4: Communication of your design & making activities

Reading list… (key text will be allocated throughout the unit)
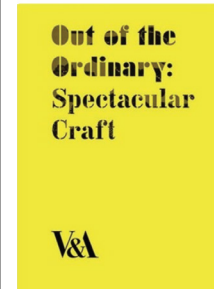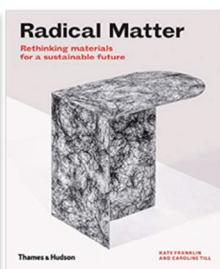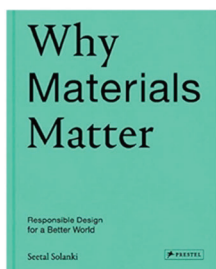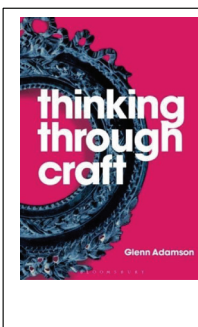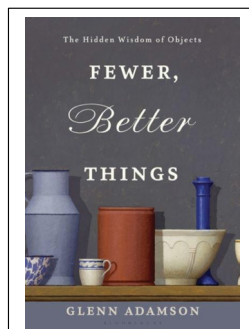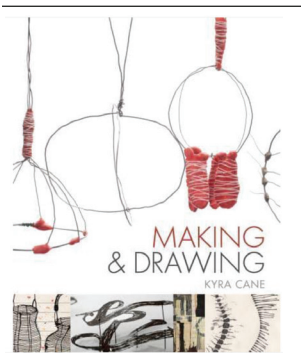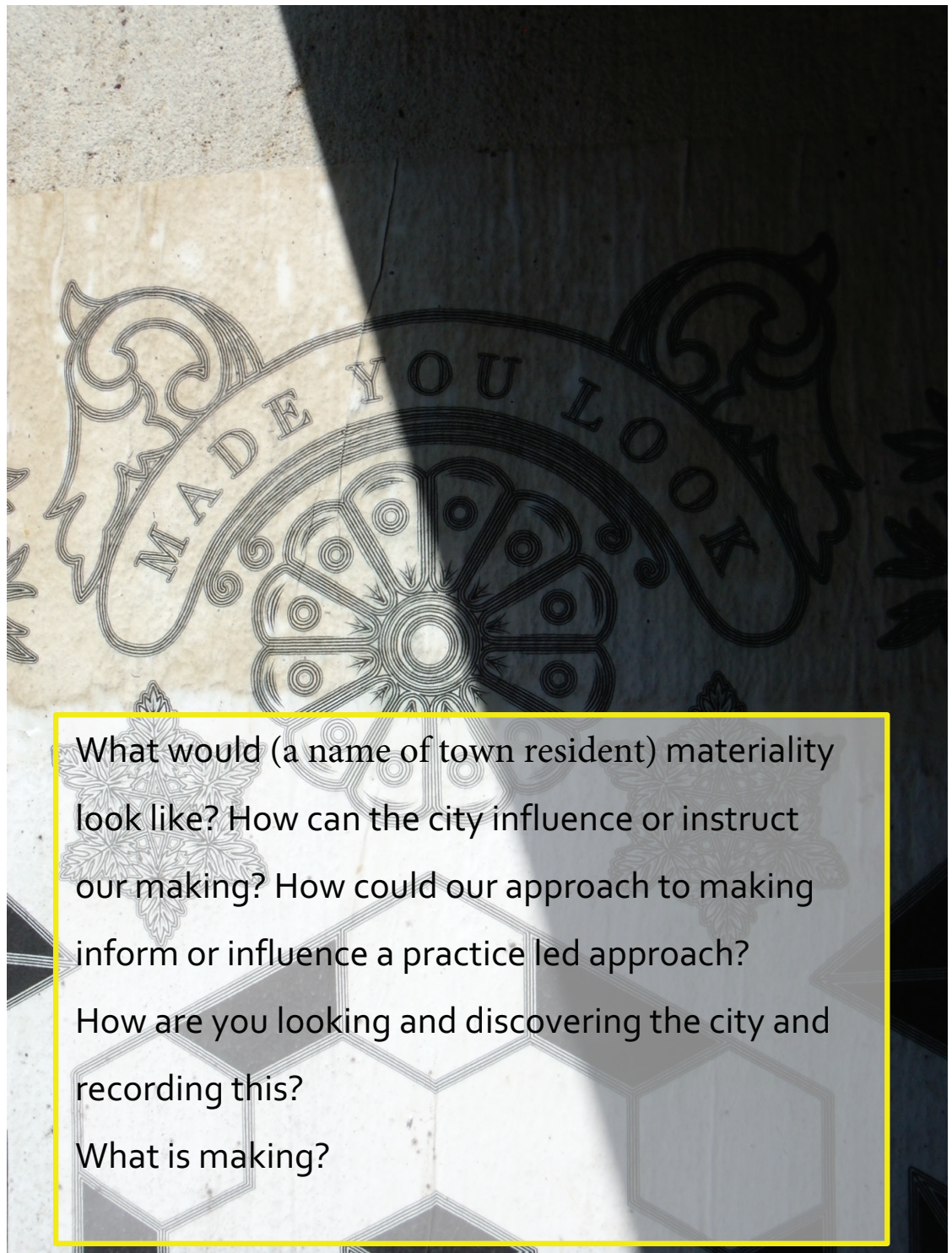
What would (a name of town resident) materiality look like? How can the city influence or instruct our making? How could our approach to making inform or influence a practice led approach?
How are you looking and discovering the city and recording this?
What is making?

Throughout this project you will engage with different positions of making and thinking. This will be delivered through inductions, workshop demonstrations, seminars, lectures, tutorials and directed study. You will build and collect evidence of making approaches through material samples, research, and drawing. These will document a required technical skillset and personal approach to the theme.

2

341

You will explore the subject 'A Discovery of... (name of town)' with direction instructed from enclosed word chart. Your project will undertake a dynamic body of research, drawings, design development, test pieces and note taking.

Transcribe and capture Manchester through your understanding and experience. Build this into a visual language that feeds technical acquisition.

Explore the city through different times, different weathers with different focuses and motivations. Gather this through primary research.

| twist | stitch | bind | hold | set |
|-------|--------|------|------|-----|
| grasp | pin | staple | net | claw |
| knot | rivet | glue | screw | tie |
| trap | pinch | fold | grapple | clip |
|  |  |  |  |  |

The deliverables:
- *A sketch book.
- *Research
- Technical/studio notebook
- Samples and test-pieces
- *Design development
- 300 word evaluation (uploaded to Moodle)

*will be unpacked and explained further

## Unit Learning Outcomes

On successful completion of this Unit, the student will be able to...

**1: Produce a range of material and process investigations**

**2: Engage with a range of visual studies activities**

**3: Make connections between 2D and 3D investigations**

**4: Record and describe activities undertaken**

# Appendix 13.    *Nexus* Guidance for Reflection (All Levels).

The Nexus Handbook detailed a requirement for students to complete a Reflective Document for summative assessment, which aligned to three key components: Research, Lines of Enquiry and Reflection. Despite the focus on reflection, there is no mention of reflective practice across these sections.

## Additional Guidelines for your Reflective Document
### (Levels 4 & 5 only)

Use the following guidelines to focus your reflection. It can help to keep notes/a journal from the start of the unit to inform your writing and strengthen your reflective writing.

### 1 - INITIAL RESEARCH (Approx. 500 words)

*Areas to discuss:*

- Reflect on your research and the aims and objectives for the option.
- Consider the relevance of collaboration in the professional world for example, collaborative work by relevant artists/ designers/ directors.

*Reflect upon the following:*

- What are the key points you wish to highlight and discuss? For example, what surprising aspects have you discovered from the start of the project (this could include positive, challenging or interesting aspects)? (LO1)
- Discuss relevant and influential key figures/processes that you have explored. Provide useful links or upload relevant images to support your comments and reflections. How may these now impact upon your work and ideas? (LO1)
- Identify the aims and objectives you intend to explore. How do they relate to your practice, and the broader context of your work? (LO1)
- Reflect and discuss a key discovery/interest (whether these are materials process or context led) (LO1)
- What has strongly influenced your practice and its development, and why was this?  And what has been the impact of these influences? (LO2)

13

**2 - LINE OF ENQUIRY / PROCESS (Approx. 500 words)**

*Areas to discuss:*

- Reflect on the cross-disciplinary practice and methodology undertaken as part of the option.

- Consider the importance of collaboration when developing your practice.

*Reflect upon the following:*

- Discuss the collaborative aspects of the work you have undertaken. Consider the learning you have gained from collaborating and how it may now impact upon your aims for this project. (LO 2&3) Remember to identify what your aims are following the initial research stage – you could do this at the end of the Research post or the start of this post.

- Identify and discuss the key developments of your project - was it within a specific skill or process, or through developing a new approach? (LO2)

- Discuss the impact of collaboration on your methodology what aspects interest you? Why? How do you intend to further develop these? Were there unexpected developments? It might be helpful to look at a definition of the word collaboration and reflect on the impact of this first. (LO3)

- What are the creative processes that you have undertaken and intend to develop in your project and practice? Consider why this is- what are the key aspects of interest? How does it relate to the broader area of your practice? Does it develop your understanding and appreciation of the context for your work? How? (LO1)

- Identify and discuss any additional research now needed to support and underpin your learning, your appreciation of your practice and development of your ideas. (LO4)

- Identify a plan of action that is required in order for you to complete the project. For example; time management, exploring new technology, furthering your contextual research and knowledge etc. (LO4)

**3 - REFLECTION (Approx. 1000 words)**

*Areas to discuss:*

- Critically reflect on the final outcomes and wider experience.

- Consider the outcome(s) and what this means for you and your practice.

*Reflect upon the following:*

- What did you learn and discover? How has this informed your practice and wider understanding? Again, it might be helpful to look up a definition for wider understanding before starting to answer this section. (LO1,2&3)

- Reflect upon your engagement with each aspect of the unit- from primary research to workshop activities, tutorial groups, collaborative work and contextual understanding. Did you commit/ engage with each aspect appropriately and contribute well? What aspects do you consider that you developed? What could you improve upon, and how might you now achieve this? (LO3)

- Reflect upon your choices, from material, to process and research. Were they conducted at the right time and to the appropriate depth and level of interrogation needed to fully inform your idea development?(LO 1&2)

- How have you communicated your ideas to your peers? What form did this take? What did you learn from this? (LO4)

- What learning did you achieve? What could you improve upon? Identify an aspect that you could develop further in line with your practice. (LO2)

- Based upon your choices made within the unit (workshop, theme, process) identify and select the key motivations within this unit. Evaluate how these relate and have informed your practice and future ambitions. (LO 1&2)

# Appendix 14.    A Priori Analysis Summary Table.

See overleaf.

| Theme | Source | Key Points | |
|---|---|---|---|
| **Integration and Emphasis on RP** | Postgraduate content | • Focus on 'critical reflection' and 'reflective notes'<br><br>• Emphasis on theoretical understanding of RP.<br><br>• Lack of experintial learning methods.<br><br>• Emphasis on theory over experiential learning methods might deter Design tutors. | |
| | UTA | • Reflection was part of the Assessment lifecycle.<br><br>• Emphasis on end-point 'reflect'<br><br>• Structured end-point reflection approach in UTA can reflect dogma (Hesseling, 2016) | |
| | *Valor* | • Central focus on 'reflect' and 'RP' in 'Future me plan'.<br><br>• Emphasis on end-point 'reflect'.<br><br>• TIntegration of critical thinking with RP. | |
| | Study Skills | • Focus on 'reflection' and 'critical reflection' tied to assessment.<br><br>• Bias towards written reflection. | |
| | Design Department | • Mention of RP in a few LOs<br><br>• Integration of various forms of 'reflect-ing' throughout the curriculum.<br><br>• Connection between reflection and professional practice. | |
| **Theoretical Underpinnings and Academic Rigour** | | | **Theory or model** |
| | Postgraduate Content | • Implicit emphasis on criticality.<br><br>• Theoretical references not explicit.<br><br>• Theoretical integration in PgCLTHE suggests and underlying dogma (Hesseling, 2016) | |
| | UTA | • Emphasis on Assessment<br><br>• Focus on assessment lit.<br><br>• Theoretical integration in PgCLTHE suggests and UTA's emphasis on assessment over reflection could reflect adherence to dogma (Hesseling, 2016) | Forsyth et al. (2015) |
| | *Valor* | • Numerous citations of RP theories.<br><br>• Encouragement to adopt personal reflective models.<br><br>• Use of digital tools to promote engagement. | Schön (1983), Driscoll (2007), Boud, Keogh & Walker (1985), Gibbs (1988), Atkins and Murplhy (1993), McGregor & Cartwright (2001), Cottrell (2019), Bassot (2023) |
| | Study Support | • Mention of several RP theorists.<br><br>• Lack of full references | Gibbs, Schön, Johns, Rolfe, Brookfield, without full references. |
| | Design Department | • No explicit mention of theories/models (limited theoretical underpinning, particularly regarding Schön, 1983; 1987 despite recommendation with uni-wide material). RP acknowledged but potentially superficial. | |

| Theme | Source | Key Points |
|---|---|---|
| **Critical Reflection** | Postgraduate content | • Frequent reference to 'critical reflection'.<br>• Linkage with national standards for academics.<br>• Potential complexity in grasping the concept.<br>• Dogma influences the acceptance and understanding of critical reflection (Hesseling, 2016). |
| | UTA | • No explicit mention of 'critical reflection'.<br>• General emphasis on 'reflect'.<br>• UTA's surface-level approach to reflection may reflect a form of dogma (Hesseling, 2016). |
| | *Valor* | • Association of critical thinking with RP.<br>• Concern for complexity.<br>• Emphasis on understanding nuances of reflection. |
| | Study Support | • Association of critical thinking with RP.<br>• Concern for complexity.<br>• Emphasis on understanding nuances of reflection. |
| | Design Department | • Pervasive reference to 'critical reflection' in LOs.<br>• Emphasis on developing cognitive abilities and professional practice.<br>• Some confusion by less-experienced tutors of differentiation between criticality and reflection.<br>• Superficial understanding and frequent use of shortened terms may echo underlying dogma (Hesseling, 2016). |
| **Praxis** | Postgraduate Content | • Did not promote tacit practice, suggesting praxis was not present, but emphasis on reflection during training indicated it did. |
| | UTA | • Promotion of experiential practice.<br>• Tacit practice not explicitly mentioned.<br>• Emphasis on end-point reflection.<br>• Structured approach in UTA reflects potential dogma ( |
| | *Valor* | • Integration of experiential learning and tacit practice.<br>• Emphasis on developing personal models of RP. |
| | Study Support | • Focus on experiential learning methods inc visualisation techniques (aligning with A&D sig. pedagogies and integrate tacit, empirical, and scientific knowledge).<br>• Emphasised making tacit knowledge explicit through reflective practice.<br>• Considered personal experiences and social influences in reflection.<br>• Supported the development of tacit practice. |
| | Design Department | • Emphasis on experiential learning in LOs.<br>• Tacit knowledge implicit, difficult to extrapolate.<br>• Integration of experiential and tacit practices in briefs.<br>• Emphasis on high standards potentially hinders iterative nature of reflective practice in design education; Lee, 2005; Bowers et al., 2022; Schoormann et al., 2023 |

# Appendix 15.    Visualisation Task Outcomes.
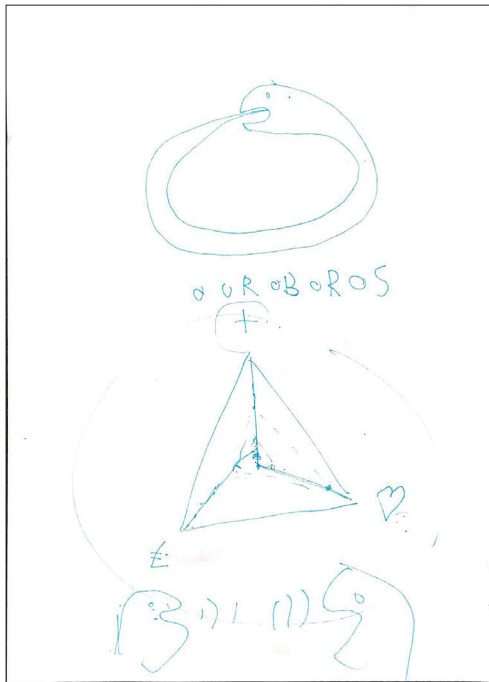


Figure 73 by *George* (Design).
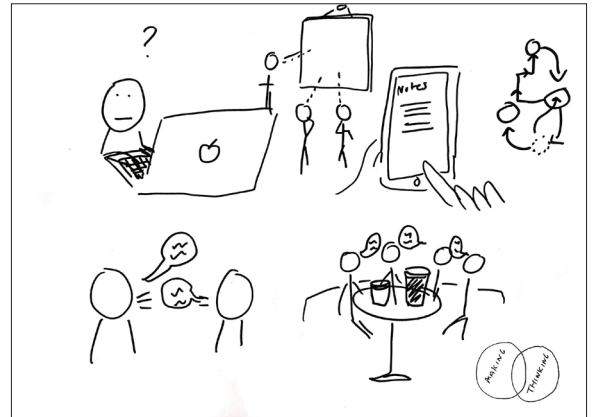


Figure 53 by *Greta* (Design).
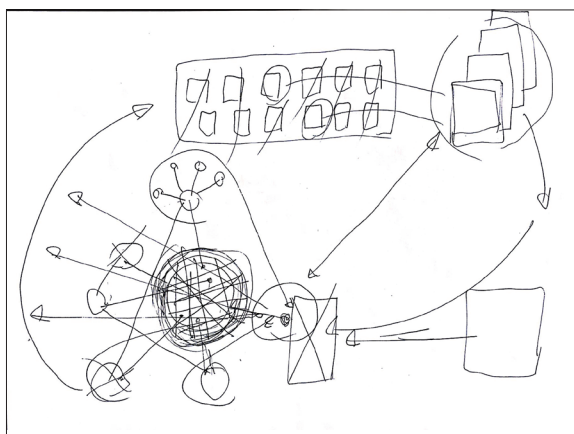


Figure 39 by *Idris* (Design).
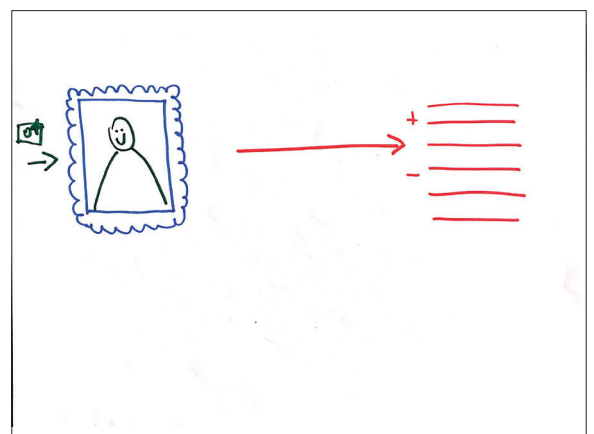


Figure 36 by *Arthur* (Design).
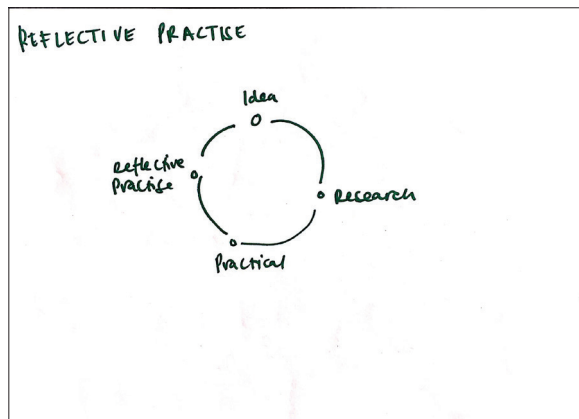
Figure 43 by *Alma* (Design).



Figure 37 by *Fred* (Design).



Figure 70 by *Flo* (Design).
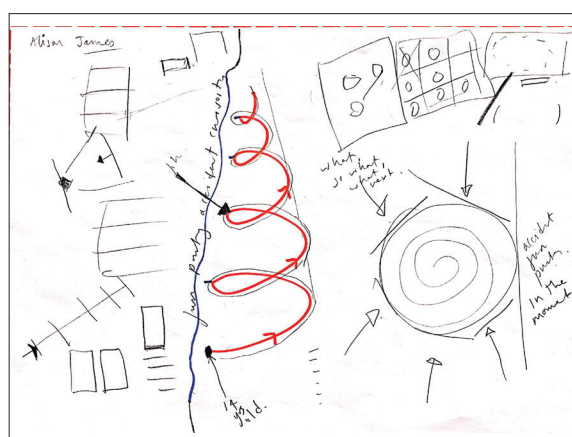


Figure 46 by *Thea* (Design).
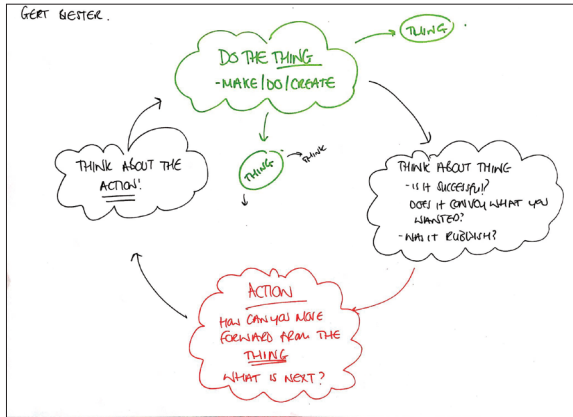
Figure 65 by *Tamina* (Design).
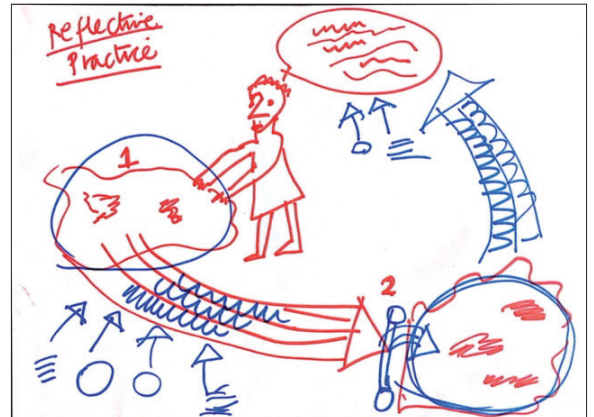


Figure 61 by *Polly* (Design).
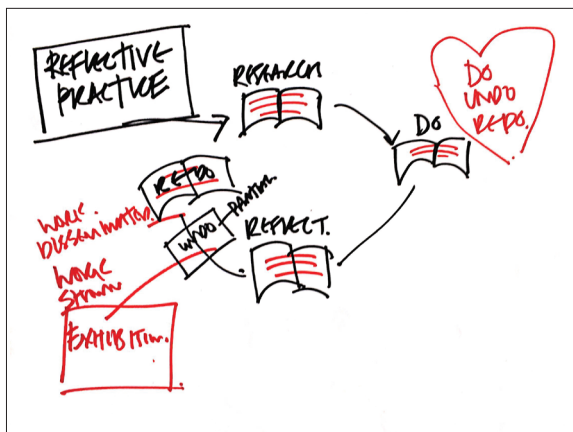


Figure 76 by *Ann* (Design).
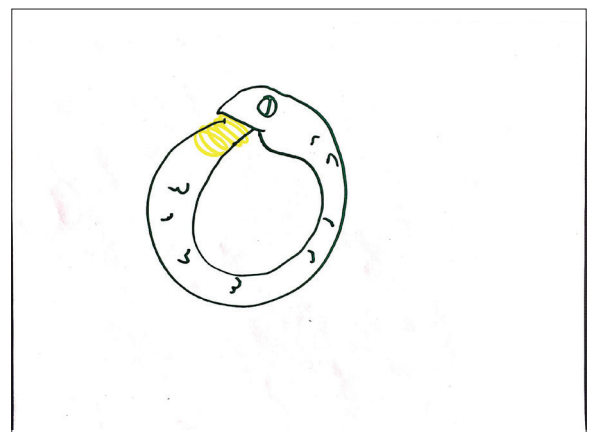


Figure 92 by *Carl* (Design).
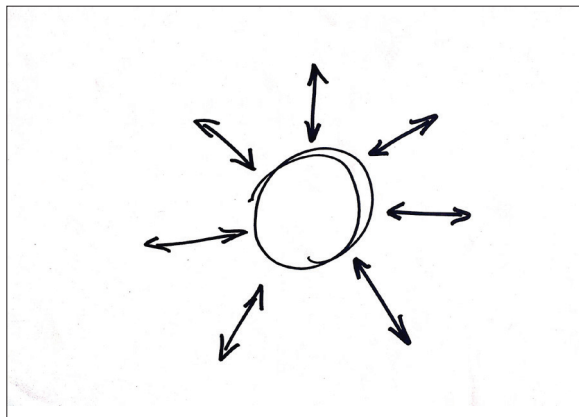
Figure 54 by *Charlie* (Design).
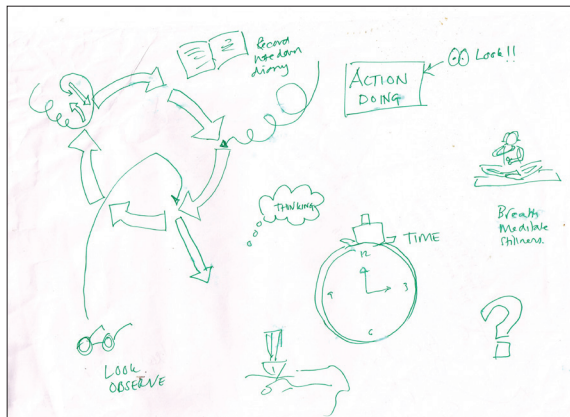


Figure 98 by *Uma*
(University-wide, previously Design).
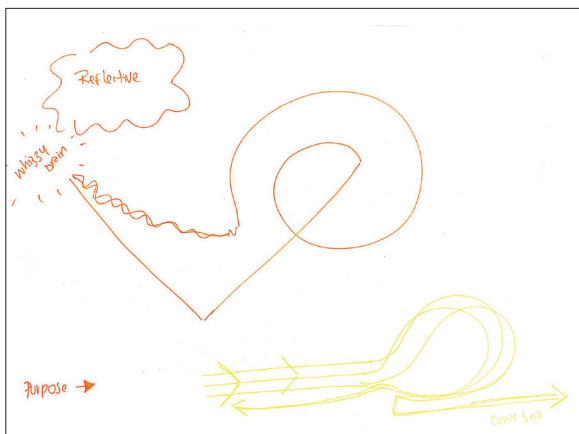


Figure 91 by *Ida* (Design).
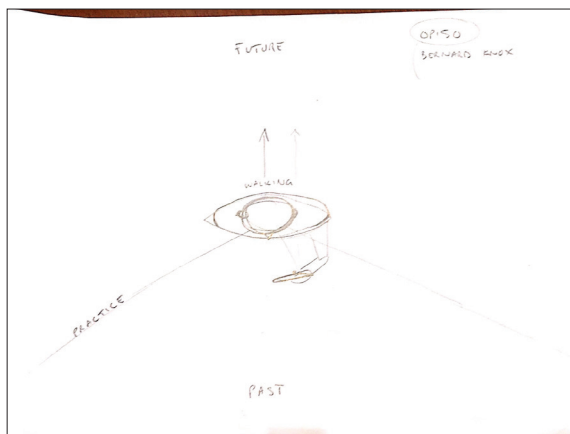


Figure 45 by *Isaac* (each Design).
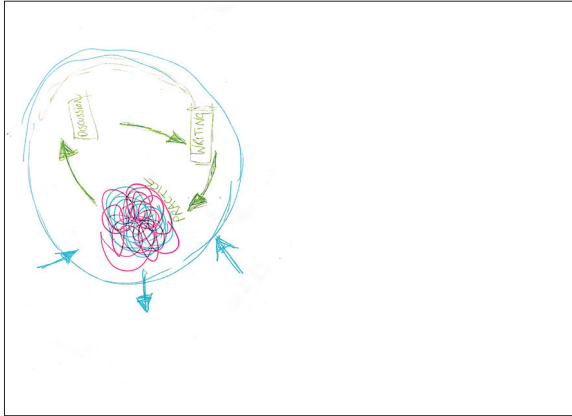
Figure 47 by *Connie* (Contextual Studies).
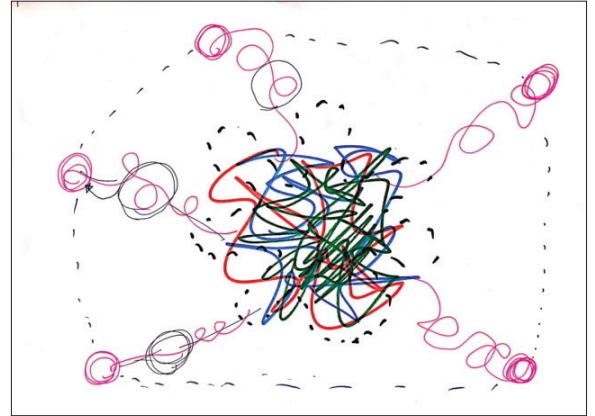


Figure 57 by *Chloe* (Contextual Studies).
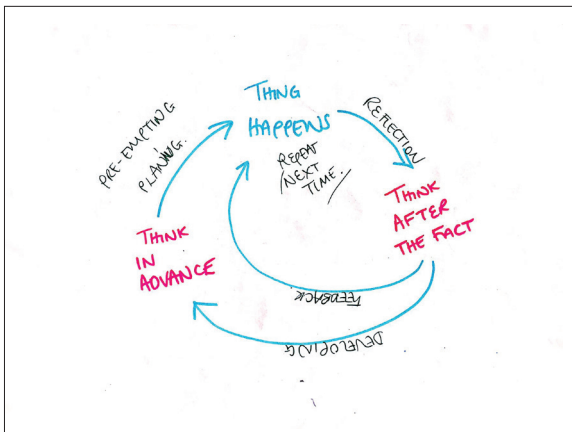


Figure 67 by *Cara* (Contextual Studies).
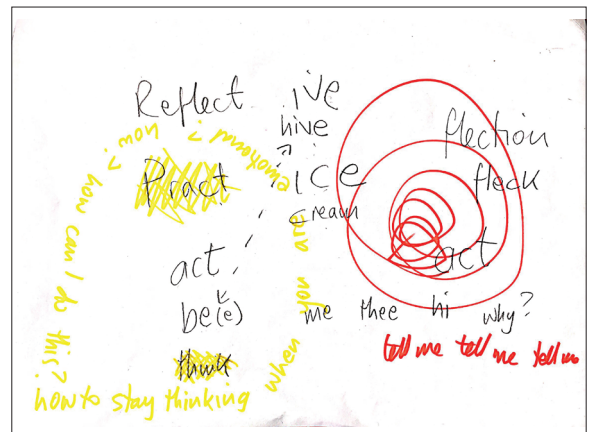


Figure 68 by *Roz* (Research).
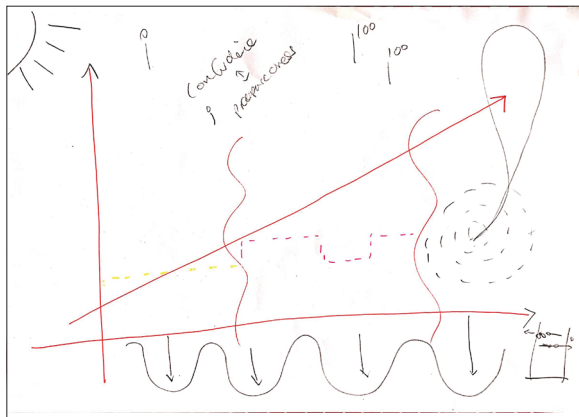
Figure 48 by *Sandra* (Study Support).
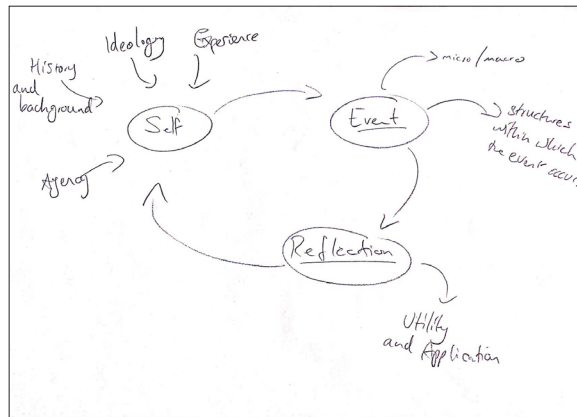


Figure 51 by *Steven* (Study Support).
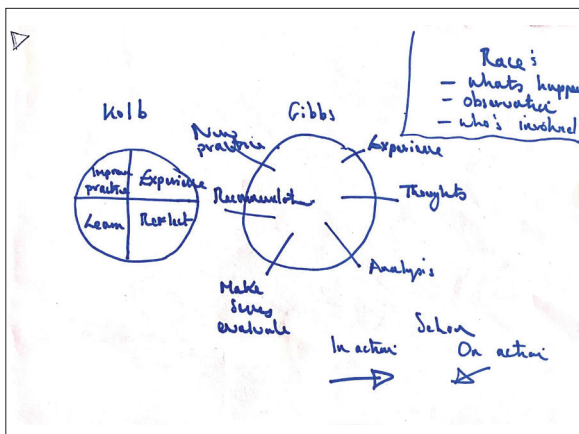




Figure 40 and 69 by *Sara* (Study Support).
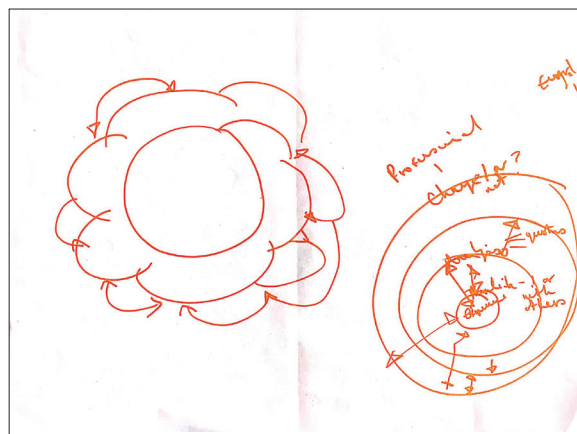
# Appendix 16.   Alignment of Participants' Drawings with the   A Posteriori Themes.

The content detailed here is outlined in the main text and reiterated here for ease of understanding. The drawings of reflective practice lent greater insight into the voiced experiences of the participants. The table below indicates where the specific drawings resonated most with particular themes. Some themes did not have a drawing associated with the meaning. For example, the theme 'Connections between critical thinking and reflective practice', did not have a drawing linked to it as the focus of the drawing was on reflective practice and not on critical thinking. All of the drawings aligned to at least one to three of the themes (identifiable by the colour coding and the key within the table). The drawings that complimented the themes the most (highlighted in blue) were created by *Fred*, *Alma* and *Connie*, representing the programmes of Design and CS. *Fred*'s was notable for its association to creative, dynamic practice, an implicit association with research and representing varied abstract emotions.

| Theme | Subheading/Subtheme | Participants' drawings aligned to theme/subtheme | Disciplinary linked |
|---|---|---|---|
| **1. Creative practice** | Creativity<br>Practice | *Arthur, Fred, Isaac* | Design |
| **2. Academic practice** | Rejection and scepticism vs. acceptance<br>It's a fine line between structure and box-ticking<br>Share approaches through dynamism<br>Reflective Practice in Research<br>Connections between crticial thinking and reflective practice<br>Overlaps between contextual and reflective practices<br>Physical space<br>Conceptual space<br>Time constraints and work pressures | *Idris, Sara*<br>*Alma*<br>*Thea, Connie, Sandra*<br>*Alma, Fred*<br>*Steven*<br>*Greta, Charlie*<br><br>*Connie, Chloe* | Design, SS<br>Design<br>Design, CS, SS<br>Design<br>SS<br>Design<br><br>CS |
| **3. Practising practice** | Reflective practice within the making and doing<br>From Making to Doing<br>Materials and Tools: Prompting Exploration and Reflection | *Polly* | |
| **4. Demonstrating practice** | Documenting reflective practice<br>Visual practice<br><br>Verbal practice – Talking, Listneing, Crit'ing<br>Written practice (in L&T)<br>Written practice (in Professional Practice)<br>Group practice<br>Multimodal practice | *Tamina*<br>*Cara, Roz, Sara, Flo*<br>*Thea, Alma, Sandra*<br>*George*<br><br>*Ann*<br>*Greta* | Design<br>Design, Res, SS<br>Design x2, SS<br>Design<br><br>Design<br>Design |
| **5. Expanded practice** | Embodied practice<br>Tacit practice<br>Emotional practice<br>Resilient practice | *Ida, Carl*<br>*Idris, Fred, Connie, Chloe*<br>*Uma* | Design<br>Design, CS<br>University-wide |
| **KEY** | **CS:** Contextual studies   **Res:** Research   **SS:** Study Support | | |
| | Drawing aligns with **1** theme/subtheme | Drawing aligns with **2** themes/subthemes | Drawing aligns with **3** themes/ subthemes |

## Appendix 17.    The Process of Thematic Analysis: A Posteriori Data.

This summary provides a comprehensive overview of the thematic analysis process conducted as part of this research. The analysis followed Braun and Clarke's (2022) guidelines, involving the following key steps:

**Data Familiarisation:**

- Audio recordings from the interviews were transcribed using Otter AI (2023).

- Repeated listening and reading of transcripts ensured accuracy and identification of significant moments (Braun and Clarke, 2022).

- Annotations and reflective summaries were added to the end of each transcript file.

**Code Generation:**

- Codes were systematically identified within the transcripts to represent 'small chunks of meaning' related to the research questions (Maguire and Delahunt, 2017).

- Codes were highlighted, commented on, and added to a list as each transcript was reviewed.

- A total of sixty-one codes were generated (Table below: **List of Codes**).

**Finding Themes:**

- Themes were sought to identify preliminary patterns of comparison and connection within the data (Braun and Clarke, 2022).

- Thematic organisation was conducted manually using paper labels, clustering shared meanings and grouping similar codes (see below).

# List of Codes

| | Code Description | | | | |
|---|---|---|---|---|---|
| 1 | Institutional/long-trm understanding | 22 | Self-evaluation | 43 | Written |
| 2 | Arbitrary understanding | 23 | Thinking for improvement | 44 | Observation |
| 3 | Structured | 24 | Deep thinking | 45 | Auditory |
| 4 | Formal | 25 | Understanding | 46 | Reading |
| 5 | Repeated | 26 | Consciousness/awareness raising | 47 | Somatic |
| 6 | Differentiated | 27 | Action | 48 | Tacit |
| 7 | Receiprocal | 28 | Personal/Individual Growth | 49 | Emotions |
| 8 | Aacademic | 29 | Group | 50 | Value |
| 9 | Research | 30 | Outcome driven | 51 | Unseen skill/not obvious |
| 10 | Critical | 31 | Feedback | 52 | Coping |
| 11 | Knowledge | 32 | Coaxing | 53 | Can reduce/ diffuse tensions (useful) |
| 12 | Theory | 33 | Making mistakes | 54 | Creativity |
| 13 | Teacher training | 34 | Change | 55 | Practice (Or process) |
| 14 | Theory-practice divide | 35 | Only if required to do it (formally) | 56 | Multi-disciplinary |
| 15 | Contextual | 36 | Collaborative/unified/holistic | 57 | Thinking about practice (not reflective practice) |
| 16 | Real-world | 37 | Networking/collaboration - public engagement | 58 | Helps find own voice |
| 17 | Space | 38 | Presentations (varied methods) | 59 | Overlaps of practice |
| 18 | Time | 39 | Documentation | 60 | Positives |
| 19 | Linked to time | 40 | Accessibility | 61 | Negatives |
| 20 | Time-consuming | 41 | Visual | | |
| 21 | Readiness for accepting/ understanding | 42 | Verbal | | |
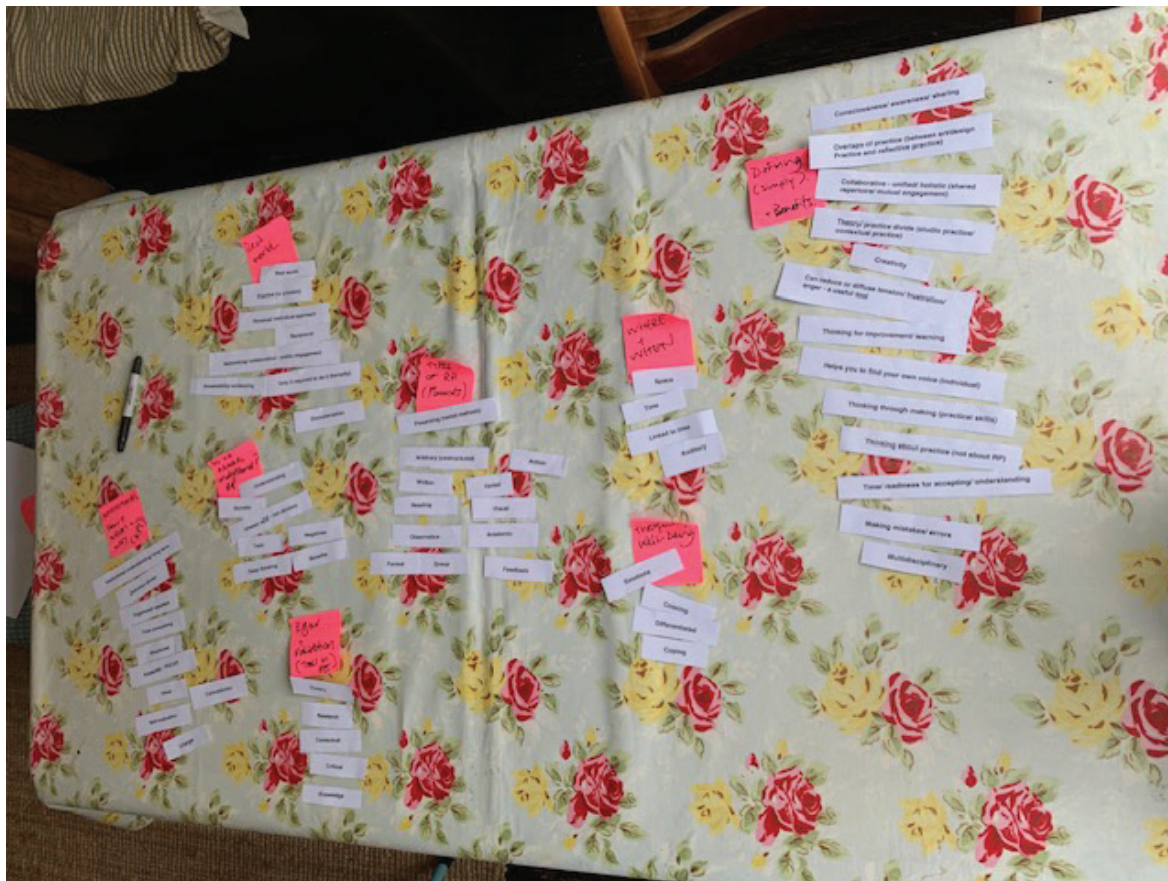
Initial theme development resulted in editing from nine to four themes, which acknowledged Braun and Clarke's (2022) guidance to not exceed six or seven themes within a ten-thousand-word report. Four themes aligned to key practices considered inherent to reflective practice in Design: academic, evidencing, creative and personal practice.
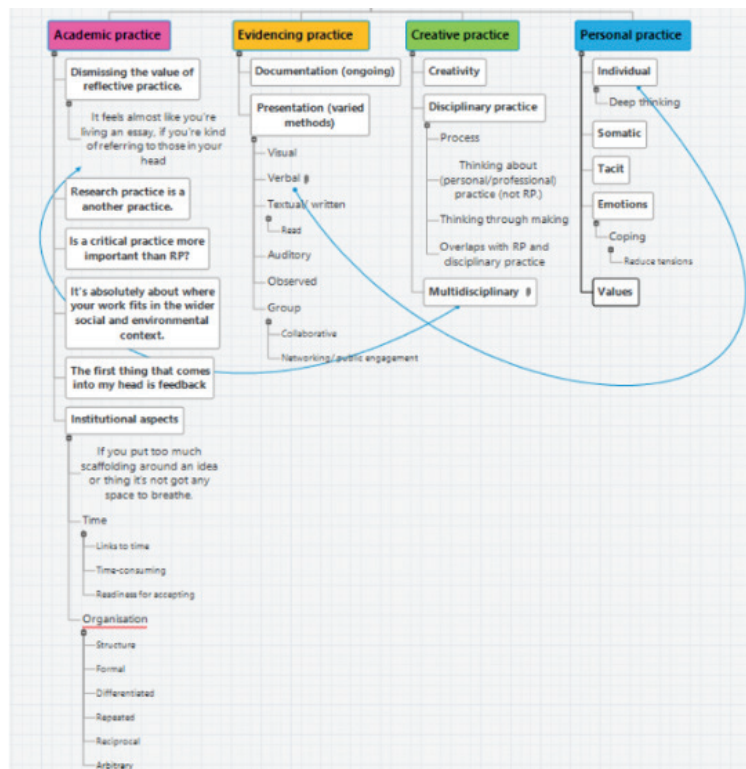
Themes were reviewed and refined to ensure accurate interpretation and quality (Bogdan and Biklen, 1982; Braun and Clarke, 2019). Table 2 captures a section of the reviewing process, using Microsoft Excel as an effective data management tool for qualitative analysis (Bree and Gallagher, 2016); each tab detailed a theme, with relevant coded data added to each row as a subtheme; blue cells denoted researcher notes; grey cells showed deletions. Finally, the theme names were confirmed, including further revisions to ensure they captured the essence of the theme, had a specific intention and association with the subsequent theme and ultimately supported the research questions (Braun and Clarke, 2019, p.66). Maintaining simplicity of theme names was considered to aid understanding within the complexity of content and thematic analyses, resulting in five final themes, which informed reflective practice: creative practice, academic practice, practising practice, evidencing/ demonstrating practice and expanded practice.

A snapshot of how the themes were arranged and reviewed.

# Appendix 18.  Representation of Participants' Voiced Experiences Across the Themes

Each participant contributed to at least three themes, except *Alma* who was a GTA and had the least teaching experience than the other two GTAs. However, *Alma*'s drawing was represented across several of the A posterior themes, while other participants' depictions of reflective practice occurred either once or twice (see Appendix 16 for full details).

| Discipline / prog. | Participant pseudonyms | Participant status | Creative Practice | Academic Practice | Practising Practice | Demonstrating practice | Expanded practices | Total citations (per participant) | Total citations (per discipline/ prof) |
|---|---|---|---|---|---|---|---|---|---|
| Design academics | Ann | Senior Lecturer | I | II | | I | I | 4 | 111 |
| | Alma | GTA | | II | III | | I | 5 | |
| | Arthur | Lecturer | | I | | | | 3 | |
| | Charlie | Senior Lecturer | | III | | I | III | 10 | |
| | Carl | Lecturer | I | I | I | II | I | 4 | |
| | Fred | Associate Lecturer | | I | | I | I | 8 | |
| | Flo | Senior Lecturer | I | IIIII | III | IIII | II | 11 | |
| | Greta | Lecturer | | III | | II | I | 8 | |
| | George | Lecturer | | I | II | II | I | 7 | |
| | Ida | Lecturer | | II | | I | I | 5 | |
| | Idris | Senior Lecturer | | II | | I | II | 4 | |
| | Isaac | Senior Lecturer | I | III | | II | I | 7 | |
| | Polly | Professor | I | I | III | | | 4 | |
| | Roz | Researcher | | | | IIII | I | 6 | |
| | Tamina | GTA | | | | IIII | II | 9 | |
| | Thea | Senior Lecturer | | IIIII | | IIII | I | 9 | |
| | Uma | Lecturer | | III | III | I | III | 7 | |
| Contextual Studies | Connie | Senior Lecturer | | II | | II | I | 8 | 20 |
| | Chloe | Senior Lecturer | | IIII | I | III | I | 6 | |
| | Cara | Lecturer | | II | I | | I | 6 | |
| Study Support | Steven | Lecturer | | | | | | 6 | 15 |
| | Sandra | Para-academic | I | I | | II | I | 3 | |
| | Sara | Para-academic | 6 | 49 | 21 | 43 | 27 | 146 | |

363

# Appendix 19.    Participant Pseudonyms and Demographics

Twenty-three participants were recruited spanning varied roles, levels of experience and full or part time statuses, working across varied programmes and services linked to the Design Department.

| KEY | GTA: Graduate Teaching Assistant — L: Lecturer — PL: Programme Leader — SL: Senior Lecturer | | | | | | |
|---|---|---|---|---|---|---|---|
| Fig. Ref. No. | Pseudonym | Role | Level | Full or Part Time | Teacher Qualified | Studied at the university | Nationality |
| 43 | Alma | Design academic | GTA | PT | X | ● | British |
| 76 | Ann | Design academic | SL | FT | ● | | British |
| 36 | Arthur | Design academic | L | PT | ● | ● | European |
| 67 | Cara | Contextual Studies academic | L | FT | ● | ● | British |
| 92 | Carl | Design academic | AL | FT | ● | ● | British |
| 54 | Charlie | Design academic | SL/PL | FT | ● | ● | British |
| 57 | Chloe | Contextual Studies academic | SL | PT | ● | X | British |
| 47 | Connie | Contextual Studies academic | L | FT | ● | ● | British |
| 70 | Flo | Design academic | SL/PL | FT | ● | ● | British |
| 37 | Fred | Design academic | GTA/L | PT | ● | ● | British |
| 73 | George | Design academic | L | PT | X | X | British |
| 53 | Greta | Design academic | L | PT | Studying | ● | British |
| 91 | Ida | Design academic | L | FT | ● | ● | British |
| 39 | Idris | Design academic | SL | FT | ● | X | British |
| 45 | Isaac | Design academic | SL | FT | ● | X | European |
| 61 | Polly | Design Researcher | Professor | FT | ? | X | British |
| 68 | Roz | Design Researcher | Research Associate | FT | X | X | British |
| 40 (1) 69 (2) | Sara | Study Support | Professional Services | FT | Studying | X | British |
| 48 | Sandra | Study Support | Professional Services | PT | ● | X | British |
| 98 | Steven | Study Support / Academic | Professional Services / L | PT/PT | ● | X | British |
| 65 | Tamina | Design academic | GTA | PT | X | ● | British |
| 46 | Thea | Design academic | SL | FT | ● | X | British |
| 98 | Uma | University-wide academic (prevoiusly Design) | L | FT | ● | ● | British |

# Appendix 20.   Recommended Sources of Reflective Practice

Wide-range sources were recommended by participants as useful to inspire students. In particular, Design staff cited references not usually associated with reflective practice theory.

| | Recommended sources linked to reflective practice | Participant discipline | No. Participants |
|---|---|---|---|
| **Reflective Practice Theories** | | | |
| 1 | Gibbs (1988) | Study Support | 2 |
| 2 | Kolb (1984) | Study Support | 2 |
| 3 | Moon (2004) | Design Practice | 1 |
| 4 | Moon (2005) | Study Support | 1 |
| 5 | RACE (Recognise, Analyse, Consider, and Evaluate (Moon, 2004) | Study Support | 1 |
| 6 | Schön (1983) | CS (Theory) | 2 |
| 7 | SHAPE | Design Practice | 1 |
| **Other theories useful to support reflective practice** | | | |
| 1 | Biesta, G. (2011) Theory of Education | Design Practice | 1 |
| 2 | Dilts, R. (1998) Neuro-linguistic Programming | Design Practice | 1 |
| 3 | Draw it with your eyes closed: The art of the art assignment (Paper Monument, 2012) | Design Practice | 1 |
| 4 | Freire, P. (2017) Pedagogy of the Opressed | Study Support | 1 |
| 5 | Flow state (Czsikszentmihalyi, 2002) | Design Practice | 1 |
| 6 | David Gauntlet (2014) Lego Serious Play | Design Practice | 1 |
| 7 | bell hooks (1994) Intersectional feminist theory | Study Support | 1 |
| 8 | Bernard Knox (1994) Backing into the Future | Design | 1 |
| 9 | Lateral Thinking: Plus, Minus, Interesting (PMI) (de Bono, 1967) | Contextual Studies (CS) (Theory), Design Practice | 1 |
| 10 | Maslow's Hierarchy of Needs | Study Support | 2 |
| 11 | Maxing out Your triangle, Jack Cheng, (Afif, 2014) | Design Practice | 1 |
| 12 | Psycho-analysis (Winnictt, 1989) | Design research | 1 |
| **Creative Practitioners emulating reflective practice** | | | |
| 1 | Sian Bonnell, Wilful Amateurism (Foster, 2024) | Design Practice | 1 |
| 2 | Alice Kettle, Reverie and Enchantment (2014) | Design Practice | 1 |
| 3 | Kimsooja (Bloomsberg, 2017) | Design Practice | 1 |
| 4 | Mark McLeish (62 Group, 2020) | Design Practice | 1 |
| 5 | Sarah Sze (Victoria Miro, 2024) | Design Practice | 1 |

# Appendix 21.    Preferred Definitions of Reflective Practice.

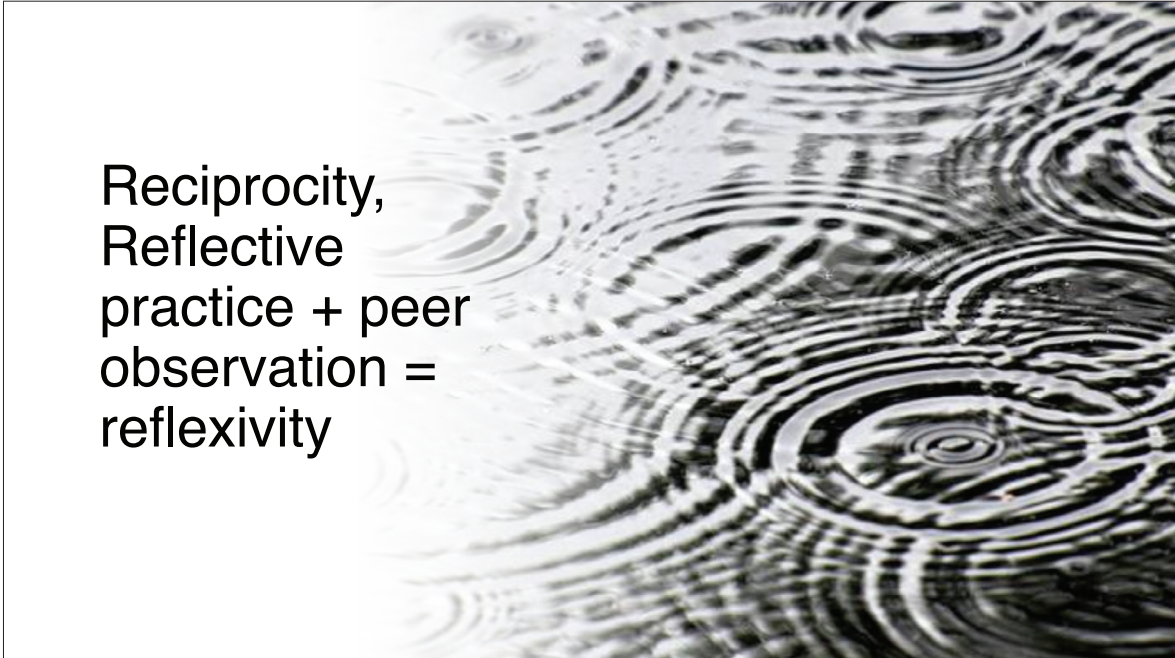| Definition of reflective practice (selected from James, 2007) | No. Participants | Participant's Reasoning |
|---|---|---|
| 'Serious thought or consideration' (The Oxford Dictionary) | 1 | • Serious |
| 'Turning a topic over in various aspects and in various lights so that nothing significant about it shall be overlooked – almost as one might turn a stone over to see what it's hidden side is like or what is covered by it' (Dewey 1933, p.57) | 7 | • Mimics own opinon<br>• Mimics design practice<br>• Metaphor (useful in A&D)<br>• Connects with the linkages to various aspects / lights<br>• Poetic |
| 'Active, persistent and careful consideration of any believe of supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends' (Dewey 1933, p.18) | 2 | • Knowledge and beliefs |
| ''Critical thinking' is like a number of words in higher education that sound 'good' and sit comfortably in, for example, the vocabulary of the Institutional mission statement. In mission statements, vagueness may not matter, but when students are told, through the use of 'critical thinking', they should analyse something, a more precise definition does matter. How can they develop something if they do not know what it is?' (Moon 2005, p.4) | 7 | • Supports that criticality is difficult<br>• Onus on criticality<br>• Mimics own opinion |
| 'By locating when and why we have felt excited or fulfilled by an experience we gain insight into the conditions that allow our creativity to flourish' (Amulya 2004, p.1) | 5 | • Excitement<br>• Creativity<br>• Locating<br>• Questioning |

# Appendix 22.  Amendments to the Drawings

At the end of their interview, each participant was asked to review the drawing created at the start of the interview, supporting reflection-in-and-on-action (Schön, 1983, 1987).
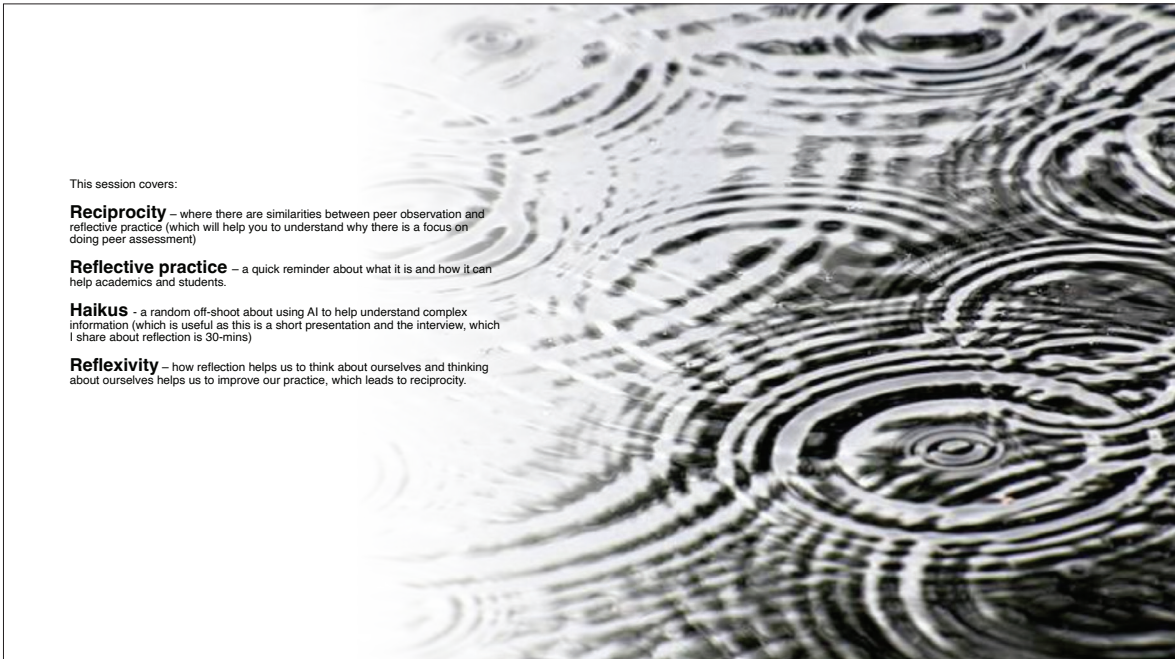
| Participant | Discipline | | Detail of Change | Simplified Change |
|---|---|---|---|---|
| *George* | Design Practice | Y | Adds people to the drawing as talking with people aids reflection | People Talking |
| *Greta* | Design Practice | Y | Adds words, and more drawing, not just illustrations of acts of where to do reflection, but more of the cognitive side of reflecting | More Thinking |
| *Idris* | Design Practice | N | Wouldn't change it, would just make another drawing | |
| *Arthur* | Design Practice | Y | Adds a person into the frame and a step before this too; the frame indicates a finished product and its necessary to have reflection ongoing not just at the final outcomes | Self-Reflection Ongoing Reflection |
| *Alma* | Design Practice | N | Thinks there's sufficient detail, no change needed | |
| *Fred* | Design Practice | Y | 'Elevation and reception' – the way reflection is used to move on to a next stage and how it can be vague and that this is useful to explore when reflecting with others | Being vague, Facilitating discussion, Reflecting with others |
| *Flo* | Fashion | Y | Changes the drawing to make the circle into more of a spiral | Dynamism |
| *Thea* | Design Practice | Y | The idea of this thread; we'll call this a thread; that line there, the red line, is my work and the pencil line is my reflections. So, it runs entirely in parallel. There's always a reflection around the work. | Links work to reflecting |
| *Tamina* | Design Practice | Y | Adds smaller 'things' to the drawing as cogs to keep turning. Through talking in the interview, they have realised the depth of their thinking and that everything is linked and relevant | Smaller details are relevant / linked |
| *Polly* | Textiles | Y | Adds conversation, a circular element and a bridge as an obstacle to jump over | Talking Cyclical Bridging to aid overcoming obstacles |
| *Ann* | Design Practice | Y | Adds the word 'undo' to the drawing to highlight that reflection is a process (within a circular process) | Cyclical Process |
| *Carl* | Design Practice | Y | Changes the snake to be a rattlesnake so that it can be heard – the noise can be heard before it bites, as a warning | Awareness 'Listening' ot for where change is needed |
| *Charlie* | Design Practice | N | 'It still represents what I want to say' | |
| *Uma* | Design Practice | N | 'What I've literally just said makes be want to just turn it over really, because it's not about a diagram. It's not about that, that was the answer to something that you asked me to do, but I wouldn't use that to show somebody else' | |
| *Ida* | Design Practice | Y | The addition is more considered, reflecting on themselves – draws channels that go off in different directions to represent their spontaneity, and uses yellow to show it is hidden | Channeling / Focusing Spontaneity |

| Participant | Discipline | Detail of change | | Simplified change |
|---|---|---|---|---|
| *Isaac* | Design Practice | Y | Adds to keep looking in the mirror to see where you are going (or maybe where they have come from if they are going backwards). | Observation / Mindfulness |
| *Connie* | Contextual Studies | Y | The initial drawing was about personal / professional practice, whereas linking it to teaching practice would be more collaborative and include time for talking. | Talking |
| *Chloe* | Contextual Studies | Y | Adds 'power' to veer away from 'navel gazing', (which they link to Dewey's definition). Despite Dewey's definition not being considered appropriate, it is useful to facilitate discussion around how deeper the thinking should be. | Power Dynamics – Talking |
| *Cara* | Contextual Studies | Y | Adds 'planning' | Planning |
| *Roz* | Research | N | 'If you gave me another piece of paper I'd do something, well I don't know what I'd do but this feels in the past.' | |
| *Sandra* | Study Support | Y | Adds awareness of emotions; for students adds a scale to rate confidence and preparedness for reflecting independently. | Emotions Rating Confidence |
| *Steven* | Study Support English | Y | Adds micro and macro details and the structures in which the event of reflecting would occur. | Macro and Micro The Setting |
| *Sara* | Study Support | Y | Made a new drawing as the first one was too generic | |
| | | Y | Adds in other's perspectives, not just own reflection | Personal Perspective |

# Appendix 23.    Peer Observation using Haikus and AI.



Reciprocity,
Reflective
practice + peer
observation =
reflexivity



This session covers:

**Reciprocity** – where there are similarities between peer observation and reflective practice (which will help you to understand why there is a focus on doing peer assessment)

**Reflective practice** – a quick reminder about what it is and how it can help academics and students.

**Haikus** - a random off-shoot about using AI to help understand complex information (which is useful as this is a short presentation and the interview, which I share about reflection is 30-mins)

**Reflexivity** – how reflection helps us to think about ourselves and thinking about ourselves helps us to improve our practice, which leads to reciprocity.

# reciprocity



Guy Bourdin, self-portrait 1954.

|  | Peer Observation | Reflective Practice |
|---|---|---|
| **Purpose** | Provide feedback on teaching practices | Encourage self-analysis of teaching practices |
| **Process** | Observe each other's teaching and give feedback | Reflecting on one's own teaching methods and experiences |
| **Self-Awareness** | Offers an external perspective | Encourages self-awareness |
| **Promotes Improvement** | Highlights aspects of teaching that be unnoticed | Develops strategies for improvement |
| **Collaboration + community** | Fosters shared learning and support | Enhances reflection through discussion/ sharing |
| **Skill Development** | Focuses on specific areas | Promotes analysis (of self and with/to others) |
| **Theory + Practice** | Allows theory to be identified | Aligns theoretical with practice |
| **Accountability** | Enables time for thinking about teaching practices | Offers a systematic approach to thinking (about teaching practice) |
| **Outcome** | Allows feedback from others and ideas for improvement | Promotes thinking about one's own practice and development |

# Reflective practice

## Building a habit of Reflection

Let's talk about reflection



### Top tips to build a habit of Reflection

**Top tip 1: Make it part of your everyday**

To make the most of the reflect stage of your future me planning, build it into your everyday. This might be in conversations with friends between classes, spending five minutes reflecting on a couple of key questions after any learning, talking with a supervisor about a project or thinking back over the day on your way back from Uni. This will make sure you make the most of your experiences – and give you some space to think about your future me.

**Top tip 2: Make it social!**

Working with others can help to keep you motivated to reflect. Try teaming up with friends, other students or colleagues for a regular reflection session. Or try some peer coaching by pairing up with someone who you feel could help you think things through. This can be something formal or a weekly chat over coffee – whatever works for you! Remember the opportunities through MentorMe too – a mentor can really help you to reflect.

In Conversation with… a Textile Artist

In this video _____ a member of teaching staff at _____ she is also a student completing her Doctorate in Education with _____ rea of research is reflective practice and so in this vid _____ res her experiences, tips and suggestions for understanding and integrating reflective practice into our lives.
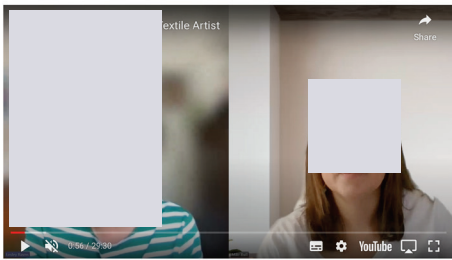
Theory and practice,

Fashion teacher, student too,

Reflects, a lifelong quest.

Stories in the mind,

Conversations spark new thoughts,

Insights bloom and grow.

Film frames capture time,

Context widens understanding,

Learning's deeper well.

Feedback, a sharp lens,

Challenge builds resilience,

Growth through honest words.

Five minutes each day,

Brain space fuels reflection's fire,

Insights light the way.

'The haiku as a form of poetry enables the juxtaposition of the rational and the emotional and has the ability 'to explore both the dark and light side of our experiences' (Grisoni, 2007, p. 353). This makes it potentially useful for critical reflection (p.3).

'The use of poetry, specifically in the structured haiku form, did support many students deepen their critical reflection on practice' (p.6).

Harvey, O. and Oliver, L., 2024. The use of poetry in form of haikus as a tool for critical reflection. *Social Work Education*, pp.1-19.

Using old and new methods, ai and Haikus, to summarise 'talking about

---

# reflexivity



Cindy Sherman, Untitled (Vanity Mirror), 2020.

Reflexivity involves examining your own thoughts, feelings, and actions, and understanding how your positionality influences your work and interactions with others.

Dean, J. (2017) *Doing reflexivity : an introduction.* Bristol: Policy Press.

# Appendix 24.    Reading List for Contextual Studies Critical Reflection Unit.

Despite the focus of critical reflection, the reading list for the unit did not reference any theories or models of reflective practice.

**CONTEXTUAL STUDIES 1 – Critical Reflection Reading List**

**BOOKS:**

Beirendonck. W.V. (2013) *Dream the World Awake.* Tielt: Lannoo

Briggs, A., (2000). 'Capitalism's Favourite Child: The production of fashion' In: S.Bruzzi and P.C. Gibson (eds.). *Fashion Cultures Revisited: Theories, explorations and analysis.* London: Routledge.

Chitose, A. (ed.) (2015) *Sacai – A-Z.* New York: Rizzoli International Publications

Christianson, S. (2014) *100 Diagrams that changed the world.* London: Batsford.

Danchev, A. (2011) *100 Artists' Manifestos.* London: Penguin.

De La Haye, A. et al. (2020) *Ravishing: the rose in fashion.* New Haven: Yale University Press.

Demeulemeester, A. (2014) *Ann Demeulemeester.* New York: Rizzoli.

Dieffenbacher, F. (2013) *Fashion Thinking: creative approaches to the design process.* London: AVA Academia

Eddo-Lodge, R. (2018) *Why I'm no longer talking to white people about race.* Expanded edn. London: Bloomsbury Publishing.

Entwistle, J., & Mears, A. (2013). Gender on display: performativity in fashion modelling. *Cultural Sociology, 7*(3), 320-335. https://doi.org/10.1177/1749975512457139

Foster, J. (2021). Framing Disability in Fashion. In: R. Brown, M. Maroto, and D. Pettinicchio. *The Oxford Handbook of the Sociology of Disability.* https://www.researchgate.net/profile/Jordan-Foster-7/publication/356192873_Framing_Disability_in_Fashion/links/619135193068c54fa5e56001/Framing-Disability-in-Fashion.pdf

Hines, S. (2020). Sex wars and (trans) gender panics: Identity and body politics in contemporary UK feminism. *The Sociological Review, 68*(4), 699–717. https://doi.org/10.1177/0038026120934684

Hopkins, V. et al. (2015) *Footwear: shoes and boots from the Hopkins Collection.* London: School of Historical Dress.

Hopkins, V. et al. (2017) *Waistcoats: from the Hopkins Collection c.1720-1950.* London: School of Historical Dress.

Hopkins, V. et al. (2020) *Headwear: hats, bonnets and caps from the Hopkins Collection c.1700-1955.* London: School of Historical Dress.

Kawamura, Y. (2020) *Doing research in fashion and dress: an introduction to qualitative methods.* London: Bloomsbury Visual Arts

Kaiser, S.B., (2012). *Fashion and Cultural Studies.* London: Bloomsbury.

Lack, J. (2017). *Why Are We 'Artists'?: 100 world art manifestos.* Harmondsworth: Penguin.

Lane, R. (2009) Trans as bodily becoming: Rethinking the biological as diversity, not dichotomy. *Hypatia, 24*(3):136-15.

Luna, I. (2009) *Maison Martin Margiela.* New York: Rizzoli

McDermott, M. and A. Ferguson. (2022). Sociology of Whiteness. *Annual Review of Sociology, 48*(1), 257-276. https://doi/full/10.1146/annurev-soc-083121-054338

McRobbie, A. (1997). Bridging the Gap: Feminism, Fashion and Consumption. *Feminist Review, 55*(1), 73–89. https://doi.org/10.1057/fr.1997.4

Mears, A. (2010). Size zero high-end ethnic: Cultural production and the reproduction of culture in fashion modelling. *Poetics, 38*(1), 21-46. https://doi.org/10.1016/j.poetic.2009.10.002

Meer, N., & Nayak, A. (2015). Race Ends Where? Race, Racism and Contemporary Sociology. *Sociology, 49*(6), NP3–NP20. https://doi.org/10.1177/0038038513501943

Moir Aidan. (2020) Fracking, fashion and the environmental activism of Vivienne Westwood. *Clothing Cultures, 7*(1), 71. https://doi.org/10.1386/cc_00029_1

**DIGITAL RESOURCES:**

Berg Fashion Library – https://www-bloomsburyfashioncentral-com.mmu.idm.oclc.org/products/whats-in-the-berg-fashion-library
British Film – Institute http://www.bfi.org.uk
British Pathé – https://www.britishpathe.com/search/recordcategories/Lifestyle++Culture
Cereal – https://readcereal.com/
Dazed Digital – http://www.dazeddigital.com/
Hypebeast – https://hypebeast.com/magazine
i-D Vice – http://i-d.vice.com/
Nederlands Fotomuseum Archive – http://collectie.nederlandsfotomuseum.nl/en/collections/image-bank
Purple – http://purple.fr/
Show Studio – http://showstudio.com/
Sleek – https://www.sleek-mag.com/
The Satorialist – http://www.thesartorialist.com/
The Business Of Fashion – https://www.businessoffashion.com/
V&A Archive –https://collections.vam.ac.uk/

**MAGAZINES / JOURNALS:**

| Another Magazine | Arena Homme + | Drapers |
|---|---|---|
| Fantastic Man | Schön | Selvedge |
| Sportswear International Tank | | Textile View |
| View 2 | Vestoj | |

## Appendix 25.  *Nexus* Unit: Examples of Multimodal Reflective Practice.

The images of work shown on the following 6-pages are larger images of those displayed in-text relating to the Reflective Document submissions and the sections: Research, Investigation and Reflection. The first two images relate to Research, the next two relate Investigation (or experimentation) and the final two relate final endpoint reflections on the overall project.

See overleaf.

## Research

My experience suggests curatorial practice always entails an aspect of collaboration. Collaboration is especially inherent when working within a team, for example to produce an exhibition, working alongside artists and even building the relationship between display and audience.

The opportunity to work with The Pankhurst Centre for this project gave both an insight into curating an exhibition and publication in a professional context. It also gave insight into an important historical and political moment of the suffragette movement. As the project was representing a public museum this meant that there was added pressure to create something of a high standard. The experience of working to external factors within a large group will be beneficial to developing my own place within the curatorial practice.

Fig.1

Figure. 1,
Group photo from the V.I.P opening of Deeds Not Words. Photo courtesy of The Pankhurst Centre.

2

## Research

Part of our group research entailed visiting exhibitions of similar themes as The Pankhurst Centre and the suffragette movement. The exhibition coincides with the centenary of the women's right to vote in the UK - Manchester celebrated its feminist legacy with the Wonder Women Festival 2018.

Manchester Art Gallery featured a retrospective of Annie Swynnerton: Painting Light and Hope. The exhibition highlighted Annie's support and involvement with women's suffrage, displaying a portrait of Dame Millicent Fawcett alongside Women's Social and Political Union branded memorabilia. To see late 19th early 20th century portraits of women by a female artist feels like rarity. However, the galleries interpretation of how pioneering her feminist paintings were felt a bit of a reach. While there are subtle elements of realistic skin, the nudes still portray white hairless women conforming to European beauty ideals. Also at Manchester art Gallery was a display of Sylvia Pankhurst's Working Women. The display of the working class by the anti-fascist campaigner showed the progression of portraying the everyday lives of women in suffragette practice.

Figure, 2,
Sylvia Pankhurst *Working Women* exhibition at Manchester Art Gallery.



Fig.2



Fig.3

Figure, 3,
Art School Illustrated publication research.

3

# Colour
# Pscholgoy

## The Color Psychology of Pink

Pink is essentially a light red and is usually associated with love and romance.
Pink is thought to have a calming effect. One shade known as "drunk-tank pink" is sometimes used in prisons to calm inmates. Sports teams sometimes paint the opposing teams locker room pink to keep the players passive and less energetic.
While pink's calming effect has been demonstrated, researchers of color psychology have found that this effect only occurs during the initial exposure to the color. When used in prisons, inmates often become even more agitated once they become accustomed to the color.
Pink is often described as a feminine color, perhaps largely due to associations people form during early childhood. 'Girls toys' are usually pink and purple, while 'boys toys' are often red, yellow, green, or blue.
Since the color is so strongly associated with femininity, people sometimes associate the color with qualities that are often thought of as feminine, such as softness, kindness, nurturing, and compassion.

On Cardin's offiical website there is a whole page dedicated to the colour yellow as well as the colour pink.
Each page shows Cardins work through the years that have used these two vibrant colours.

https://pierrecardin.com/%22In+Yellow%22-cl18-en / https://pierrecardin.com/%22In+Pink%22-cl17-en

---

Do you feel anxious in a yellow room? Does the color blue make you feel calm and relaxed? Artists and interior designers have long believed that color can dramatically affect moods, feelings, and emotions.

## "Colors, like features, follow the changes of the emotions."

Pablo Picasso

### The Color Psychology of Yellow

Warmth: Yellow is a bright that is often described as cheery and warm.
Difficult to read: Yellow is also the most fatiguing to the eye due to the high amount of light that is reflected. Using yellow as a background on paper or computer monitors can lead to eyestrain or vision loss in extreme cases.
Frustration: Yellow can also create feelings of frustration and anger. While it is considered a cheerful color, people are more likely to lose their tempers in yellow rooms and babies tend to cry more in yellow rooms.
Energetic: Yellow can also increase the metabolism.
Attention-grabbing: Since yellow is the most visible color, it is also the most attention-getting color. Yellow can be used in small amount to draw notice, such as on traffic sign or advertisements.
https://www.verywellmind.com/color-psychology-2795824

The colour yellow reflects a large amount of light and is often used in situations and products intended to create a sense of excitement or energy.
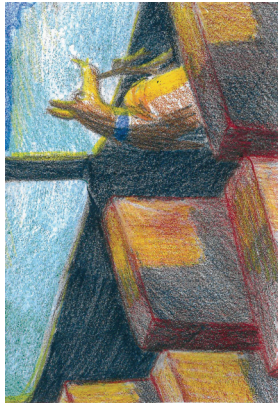
"Fully saturated yellow is only good for brief exposure, because its stimulating effect is so powerful that it can build up emotional energy quite quickly. I know that I would probably go nuts in a house with LEGO yellow walls. Though it should be noted that a less saturated yellow, such as that found in whipped vegetable spread (faux butter) is mildly pleasing and cheery." - TheOddStrange
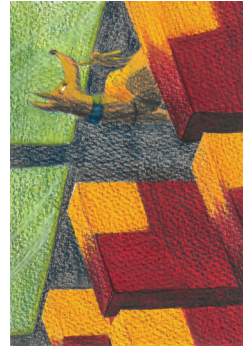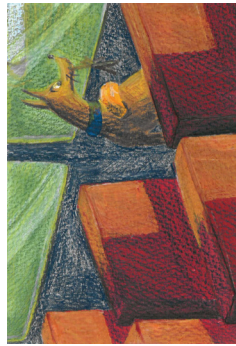
## "How wonderful yellow is. It stands for the sun."
### -Vincent Van Gogh

that the first attempt is better than the second as the brighter colours do not communicate the time of day well as they were too bright which indicated that it was earlier on in the day. Over all looking at this technique in general I don't think it would take it any further as the material is to bright and harsh and is more difficult to create the effect I want. Using this material was difficult as I couldn't get the detail that I wanted, it's difficult to get layering that a wanted as they are opaque. Also, when using the gouache, I painted on to water colour paper which was fine until I would put on the pencil layer which didn't agree to the pencils as the colour sat awkwardly on top giving it an unnatural look.

When talking and presenting my work in tutorials one thing that was motioned was that there was not enough detail, especially in the bus scene. Which I then researched and found out how the objects actually looked and using that as a starting point rather than making it up. One of the things I research was the bus seats. I noticed that during them times the bus seats had more detail then I thought and each seat sat two people. I noticed that they had patterns and more stitching. I took that information and made two different versions of seats. One being mainly just a pattern. This greatly improved the piece giving it more detail made is more appealing to the eye and elongating the seats gave more of a sense of a 1920s bus rather than a school coach. The next piece again I made the chairs double, I added detailing to the fabric but this time I added 'padding' to the chair which made it look thicker. By doing this it made me think more when drawing as I had to think about how the light would illuminate the chairs with all its folds, and drawing/ colouring this was tedious. Adding this detail impacted the drawing as I was being more precious about it and with that I lost the texture of the colouring pencils which now makes the piece look uninteresting and too smooth. The sunlight on the chairs looks cold which doesn't give the effect that I want. Whereas in the first piece it had more orange than yellow which gave it a more warmth, more of a welcoming appearance and gives it a stronger impression of the time of day. Appearance wise the second attempts chair is thicker compared to the first and I think it looks much better as its more

Once I was happy with my story board I picked out a couple of double page spreads which where the last spread and one of the main character on the bus. I did colouring pencil experiments for both and they both came out very differently. For the last spread I focused on framing the scene by using a silhouette of the dog and trees forming a frame for the sunset, I was happy with the outcome but it was too early in the project to know if I wanted to take it further. The second spread I did of the dog on the bus was initially just had blocks of colour which looked dull. To try and overcome this I added another layer of pencil which was a dark indigo and a dark cadmium yellow. Using these colour I started to think about what time of the day it was in my scene which became a challenge in communicating that. I used the indigo for shadowing and the yellow for the highlights and the sun light. Using this simple method brought life to the drawing and gave it atmosphere.
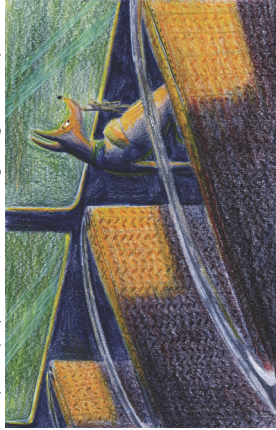
From this I then experimented with gouache to try and give the colour more of an impact. I began with the basic colouring, with no shadows and highlights as I added them in with colouring pencil in the same method as the last. This created a nice effect but I still wasn't happy with the colour. So, I tried it again using brighter colours. After doing this I discovered
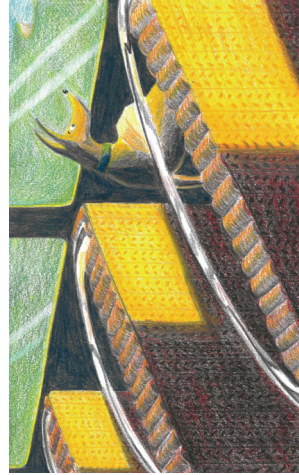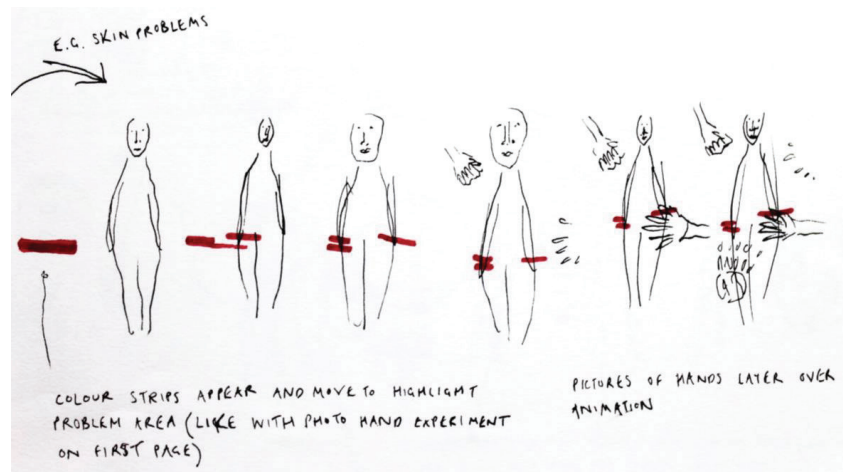
Through capturing this compatible still image, I was then able to break it down to think about how I could begin to make it into moving image as we can see in *figure 7*. By breaking my ideas down and visualising moving image frame-by-frame I am able to see what would work even as still images to ensure that the animation is constantly engaging the viewer. Furthermore, it builds a basic framework on timing and placement in stop motion in a way that still allows me some flexibility whilst filming.

Final Exhibition
Manchester Art Gallery

Evaluation.

I feel that our final exhibition was effective in answering our given brief as well as achieving our personal objectives as a group. We wanted to create an immersive environment in which people could interact with. We placed an inflatable chair in the centre of our installation to encourage people to get involved. Throughout the evening of our exhibition several people chose to sit in the chair and immerse themselves within our installation and watch our fashion film that we had projected. I feel as a group we worked well in creating a multi-disciplinary piece of work. As a graphic designer, I took the images from our shoot and created a handout that would explain to the public what out exhibition space was trying to achieve and give them information on our concept as well as the psychological effects of the colour yellow. Throughout the evening many people took these hand-outs with them which made me feel we had met our personally aim of making our work interactive.

In reflection, I feel we could have worked better as a group, despite all getting along. I found it hard to organise to meet up to do work with my group members and felt more strain towards the end of the project. This however, may have been due to India being ill and not being able to contribute work. Our original concept was based around the textiles pieces she intended to make so when she was unable to create them, it put a lot of stress on us to recreate texture through other means in a short space of time, but still maintain our concept of creating an immersive environment in which people could interact. As a graphic design student, I also found it daunting choosing a different Unit X brief. I was looking forward to collaborating with people from different courses and wanted to challenge myself, however, I found myself very lost towards the end of the unit. I was very out of my comfort zone to the point where I felt I did not know what I was doing. When group members did not show up I was unsure of how I could contribute to our ideas due to being from a different course. I did enjoy the brief but felt it was extremely open, being a graphic designer student, I prefer and work better on more stricter briefs, so this unit was definitely a challenge for me. I feel our final outcome met all of the briefs requirements and we managed to work well together at the end of the unit despite losing a group member. As a whole I feel this unit has been a learning experience and I have gained a lot of knowledge from it. I enjoyed holding a shoot with fashion art direction students, which is something I have never done before but always wanted to do. I was very pleased with the hand-out that I designed for the exhibition which Martha helped with printing. I had never created something for an actual event before, so this was very new for me. I am also pleased with our exhibition space in response to the brief at Manchester Art Gallery. I feel I learnt a lot about professionalism by displaying our work at such a prestige gallery. I enjoyed being part of something that was so well received by the public, not just other student and tutors. Overall, I was very happy with our exhibition despite having mixed feelings through the process and feel I have learnt a lot from the experience.

## Reflection

The development stage began with the title of the exhibition. It was important to create a strong connection with the suffragette movement but one which was not overtly about the suffragettes. Emmeline Pankhurst's call for action "deeds not words" particularly stood out from the initial research. It was open enough to be interpreted with our theme of art's involvement in contemporary political action. By researching the suffragette movements through the Pankhurst Centre and Manchester Art Gallery I was able to get a broader understanding of the representation that was missed 100 years ago, which we wanted to include now.

To explain the exhibition theme appropriately, I sought advice by getting in contact with a lecturer who specialises in feminism and postcolonialism. My intention was to get a better understanding of issues around intersectional discourse when writing the open call and the exhibition text to make sure that they related to the overarching theme. Getting advice from an objective source and subject matter expert from outside the project gave me the reassurance that I was making use of the appropriate information available to me. This experience instilled the importance of being assertive through asking questions in a situation I am unsure about.
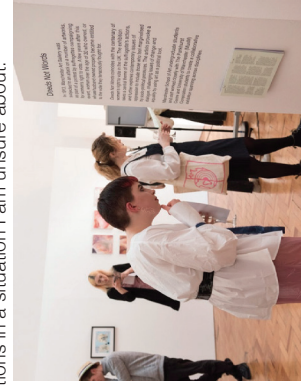
Fig.16

Figure. 16,
View of exhibition text and artist statements.

We orginaly planned on putting the artist statements on the other side of the false wall in vinyl lettering. However, this would have caused issues with the amount of text we had to put up and take back down. Instead we decided to make a simple hand out, placed on discrete hooks below the text for visitors to take.

14

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## Reflection

I enjoyed taking on a curatorial role and working independently towards a practice based project. Towards the end I came to understand the importance of delegating tasks within the group and not taking on more than my share to create a productive environment. We worked as a team, using our specialised skills to contribute to the install. After a floor plan had been devised the exhibition came together quickly as we began to receive the artworks.

Putting together a well-received exhibition and being trusted by The Pankhurst centre to collaborate has been an enriching experience for my personal practice. The subject of political and social activism around the exhibition has become a point of interest for me. Socially engaging art is something that I am keen to explore further in my developing practice and contextual research.
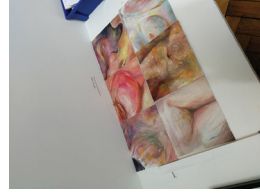
Fig.17

Figure. 17,
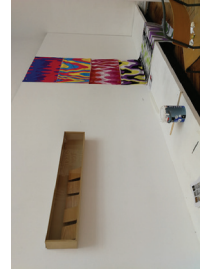Arrangement of work by Kirsty Appleton before hanging.



Fig.18

Figure. 18,
Install of the first artworks.

15

379

# Appendix 26. Contextual Studies Critical Reflection Unit: Examples of Multimodal Reflective Practice.

The images of work shown on the following 2-pages are larger images of those displayed in-text relating to the coursework submissions for the Critical Reflection unit.

## Luo Yang

In 2007, Luo Yang photographed women from her own generation post 80's, documenting their change into adulthood. She wanted to show a realistic insight into how these women's lives were adapting, in the series titled "Girls". In 2019 she created another series titled "Youth", looking at the younger generation in the same way, but broadened her subjects from just women, to people expressing their gender fluidity. She photographs people in an intimate, vulnerable way but this allows them to connect with the viewer and creates powerful stories through the imagery. Through her subjects she also explores stigmas around femininity,looking at women that don't fit into the Chinese mainstream,

figure 3

and creating a less polished, raw insight into the lives of the youth. I am inspired by everything that Yang explores within her photography, and also how she uses setting to create the atmosphere of the images. These images have a dreamy quality, and a softness that reflects the vulnerability of the subjects. I love how the syting is honest and adds to the genuine nature of these images, whilst still reflecting the subjects personality and times they were photographed in. I can understand why some people may view this as unimportant to the fashion industry however, realistic documentations of peoples lives and how this correlates to what they wear is something I am very interested in.

figure 4 (left)

## Bill Cunningham

Fashion photographer Bill Cunningham was known for riding his bicycle on the streets of New York and capturing what anyone and everyone was wearing. It was pure documentation, with an awareness of but no bias to social heirachy, "not just an encapsulation of fashion but of New York lives". Bill's photographs as well as his attitude towards his work are very inspiring to me. He photographed people unposed, but never with the intent to embarass, only to show a realistic insight into what people were wearing in real, everyday life.

← figure 1
figure 2 ↗

"the best fashion show is always on the street" Although he also photographed fashion shows, he loved documenting how this translated to the everyday person and "if it isnt something a woman would wear" he wouldnt photograph it. His experience also allowed him to know when designs were copied and loved truly inovative fashion. He was also documenting things like queer fashion when this wasnt allowed in newspapers but he pushed for the representation for this community. His collumn for the New York Times was where he showcased his predicted trends and also made fashion photography accessible to anyone.

# TYLER MITCHELL









Tyler Mitchell is a Brooklyn based photographer, recognisably known for being the first black man to shoot a cover of American Vogue. As a teenager growing up in the height of Tumblr's domain, like most he used the platform as a way to be inspired. Mitchel became increasingly aware of the type of images being circulated on the platform which would often picture young white models in a sensual and idyllic way ultimately showcasing this sense of freedom and carefree happiness. With constant exposure to these images, a noticeable awareness of the lack of POC was evident. As an ongoing response, Mitchell work primarily focuses on showcasing Black Utopia.

One of my favourite series is 'Boys of Walthamstow'. The collection of images itself presents us with a re-defining of stereotypes associated with an area in east London, essentially re-imaging and allowing for a new representation filled with optimism. I admire how closely he works with the narrative of identity throughout his work, consciously making effort to present visible inclusion. His artistic style also has a balance between portraying things in a soft outlook through lighting and depth of field, whilst forming powerful and evocative images with rich and intense colour pallets particularly apparent within his editorial work.

# PETRA COLLINS







Photographer and Director, Petra Collins' work explores narratives of femininity within modern context and self discovery. I was first exposed to Collin's work by the series 'Fairytales'. Within this series alongside model Alexa Demi, they explored folklore stories both familiar to them incorporating an erotic twist   After further research into her work, I was further intrigued by her videography and still from music videos, coming to find she had also worked with Selena Gomez for 'Bad Liar' and 'Fetish'. From this I was becoming more aware of Collin's 'nastagical haze' in which her photos encapsulate. I was particularly drawn to her stills from Lil Yatchy's 'keep sailing' video as I particularly admired the way it looked so soft and natural. There is no feeling of forced acting for the camera as the shots all have this candid look about them, to me they make simple mundanities look so normal but in a very beautiful way which I would like to experiment with in my own work. Collins is also known for primarily shooting in film, which suggests why her photos have this modern yet retro aesthetic about them, I too would like to experiment with using analogue methods throughout my own work or even means of editing that allow for this type of nostalgic aesthetic.

## Appendix 27a.   Critical Reflection Unit: Bibliography (1).

The Kipling Method, included in the student's appendix alongside their bibliography, was used to support reflective practice.

# appendix

initial refelctions on the theme of insight using the Kipling method, looking at House Train to Italy 1991 by Tony Davies

who - subjects are anyone and everyone, audience is anyone and everyone

where - this book pictures people on the train but in general: streets, public places, outside, in homes, places tht are relevant to the subject and inform the image

what - images of life happening, moments captured in still

why - provides a more personal insight into peoples lives, therefore they are more relatable, has more character and energy, also provides a genuine insight into styles/cultural influences at the time

when - these were pictured in 1991, photos from any era give an authentic representation of the time

how - catching people off guard, in their element, maybe not knowing they are being photographed makes it more genuine
how does it inspire me? - more connection between the work and the viewer through relatability and reality of the images.

## Critical refelction on fashion film "Thinkin home" using Gibbs refelctive cycle

describe - documentary style, boys in their home town
feelings - I enjoyed the cinematography, felt it was slightly too long/slow paced
evaluation - I liked how the clothing is worn naturally/realistically, made it more personal
analysis/ relation to my practice - I like the documentary style portrayal of clothing
condusion - making something more personal can give it more impact
action plan - look further into Wales Bonner

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**Appendix 27b.   Critical Reflection Unit: Bibliography (2).**

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# Appendix 28.   Participants' Mutable Opinions Regarding Reflective Practice.

| Theme | Sub-header | Participant (discipline / level) | Initial stance | Second stance | Difference between stances | Subsequent theme |
|---|---|---|---|---|---|---|
| Creativity and Practice | | Tamina (Design / GTA) | "its about understanding that creative practice or reflective practice is what it is" | Implies interchangeability between creativity and reflective practice/ | Perceives creative practice and reflective practice to be the same and later sees them to be interchangeable, which impels nuanced differences. | Academic Practice |
| Academic Practice | | Various (Design and CS) | Expressed adversity to reflective practice, viewing it as a barrier. | Creativity and reflective practice are intertwined. | From rejections to entwined. | Creativity in Practice |
| | It's a Fine Line Between Structure and Box-Ticking | Isaac (Design / SL) | Advocates eliminating formal peer review processes. | Beneficial when structured | Moves from disregarding the formality of reflective practice to promoting a structured approach. | Demonstrating Practice |
| | The Research and Practiuce Loop | Alma (Design / GTA) | Linked reflective practice to essay writing and saw it as a burden. | Acknowledges its importance in personal and prfessional practice/ | Changes perceptions from a textual format to academic practice to it being linked to personal all professional practice and therefore linked to design practices. | Practising Practice |
| Practicing Practice | | Isaac (Design / SL) | Dismisses reflective practice as "a subsonscious thing" | Recognises reflective practice in professional practice. | Fluctuates between perceptions of implicit and explicit, professional practice. | Academic practice |
| Demonstrating Practice | | Alma (Design / GTA) | Initially resistant to reflective practice | Sees the importance of documentating reflective practice | Changes from resistance to promoting the importance of reflective practice | Academic practice |
| | Group Prsctyice | Greta (Design / L) | Finds it hard to engage in honest reflection due to expectations | Optimistic view of group work contributing positively to reflective practice | Fluctuates between perceiving group work to be beneficial and restrictive/ anxiety inducing | Demonstrating practice |
| Expanded Practice | Emotional Practice | George (Design / L) | Not understanding reflective practice | Embodied tacit understanding | Tacit to explicit understanding. | |

L: Lecturer  SL: Senior Lecturer