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ELECTRONIC NONVERBAL CUES (eNVC) AND DEEPER LEARNING:

ARTOGRAPHIC TAPESTRY OF ONLINE NARRATIVES

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من قلبي سلام لبيروت

From my heart, a greeting (peace) to Beirut

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Scholarship is not purely an intellectual act but is situated, embodied, and intimately woven with who we are. Who we are is about "we" not "I". Our sense of self and scholarship are shaped in relational, poetic, and political moments (Cunliffe, 2008).

Echoing Cunliffe's sentiments, completing this dissertation wouldn't have been possible without the support of incredible individuals who've walked this path with me. While it's impossible to acknowledge each one within this limited space, I highlight those who were instrumental in the accomplishment of this study, extending my gratitude to all those not mentioned here.

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iv

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Abstract

In this study, I delve into the intricate tapestry of communication in online education, focusing on the interplay between verbal and nonverbal cues in asynchronous online course discussion forums. Specifically, I explore electronic nonverbal cues (eNVC), such as silence and chronemics, that constitute significant yet often overlooked components of communication in text-based online learning environments. My research addresses this gap by exploring how aspects of eNVC can either promote or hinder deeper learning through interaction and engagement. The exploration is grounded in the lived experiences and perceptions of individuals well-versed in higher education discussion-based online courses. To encapsulate these nuanced perspectives, I adopted a qualitative approach under an interpretive/constructivist paradigm and engaged six participants within an artography methodology. As part of this methodology, I wove a tangible tapestry to represent my learning journey through reflexivity. This tapestry served as a metaphor for intertwining the verbal and nonverbal threads I was investigating. As a researcher-weaver, I have meticulously intertwined the unique narratives of the participants, both metaphorically and literally, into this dissertation tapestry. Through rigorous reflexivity and analysis of the emerging themes, I gained insights into becoming a deeper learner. The four main thematic threads were: To and Fro Again, signifying dynamic engagement through dialogic interactions; Negative Space, emphasizing the role of silence; Reflexive Apprenticeship, underscoring modeling; and Layered Growth, denoting the progressive nature of deeper learning. The findings of this study contribute to the discourse on enhancing online education by spotlighting the overlooked nonverbal dimensions of online communication and their potential for fostering meaningful learning experiences.

Furthermore, it provides recommendations for improving pedagogical practice in asynchronous contexts by harnessing the power of eNVC.

     Keywords: nonverbal, eNVC, interaction, engagement, deeper learning, online, asynchronous, discussion forums, artography (a/r/tography), reflexive inquiry, tapestry

Preface

This study employs an artography (a/r/tography) methodology, adopting a non-traditional structure and presentation (LeBlanc & Irwin, 2019; Springgay et al., 2005). While I discuss the philosophical underpinnings and key facets of this methodology in Chapter 3, I note that the roots of my dissertation lie in narrative inquiry (Clandinin & Connelly, 2000) and reflexive narrative (Lyle, 2014). These methodological approaches integrate smoothly within the *graphy* component of artography and inform both the textual and artistic expressions I have explored – most notably, the weaving of a tangible tapestry for my dissertation. As such, my study follows these guiding principles:

1. **Personal Narratives and Bifurcated Text:** In keeping with artography and narrative research, I insert autobiographical narratives throughout the dissertation to highlight personal experiences that inspired my research choices. These narratives appear in *italics*, often as bifurcated text representing entries from my learning journal.

2. **Research Puzzle:** Scholars in the field of narrative research, advocate for framing a study around a particular research puzzle that encapsulates the elements of a search, a re-search, and an ongoing commitment to search again (Caine et al., 2022; Clandinin, 2022; Clandinin & Connelly, 2000). Consistent with this perspective, I frequently refer to my research problem and questions as a puzzle, which I continually revisit to explore new insights.

3. **Togetherness in Living and Telling the Narratives:** In line with the reflexive and relational nature of artography, I have intentionally fostered meaningful relationships with the research participants. This resonates with the focus on relationality that is central to both reflexive inquiry and narrative research. Such an approach has

cultivated a sense of togetherness as we engaged in the process of storying and restorying narratives (Clandinin et al., 2018). This is particularly significant given that my role as an artographer using narrative research methods necessitates that I am not merely an external observer but an integral part of the phenomenon under investigation (Clandinin, 2022).

The aforementioned principles that guided my study have not only shaped its trajectory but also contributed to the evolution of my thinking. As I reached the final stages of writing this dissertation, my comprehension of artography deepened, compelling me to embrace it as the overarching research methodology. This approach fuses artistic and textual expressions and emphasizes collaboration. Through this exploration, I have come to value the richness of multiple perspectives, recognizing that each reader offers unique insights into the interpretation of the narratives. Therefore, I invite you, dear reader, into this collaborative sphere of meaning-making. This space is designed not for passive consumption but for active engagement. Your reflections, reflexivity, connections, and interpretations will add nuanced layers of understanding to the tapestry of this study. As you navigate these narratives, it is my earnest hope that you find resonances with your own experiences and contribute your unique threads to this woven discourse on eNVC in asynchronous online discussions.

Before you delve into these narratives, I also invite you to acknowledge my intentional use of the narrative present tense throughout the work. Except for instances where I recount past actions undertaken during this study, the present tense prevails. This choice serves two purposes. Firstly, the narrative present acts as a reminder that the stories we tell and the meaning we derive from them are continually evolving. Like the threads of a tapestry, our narratives are dynamic; they move, intertwine, and shift to create new patterns as our

understanding deepens. Secondly, employing the present tense aims to diminish the temporal

distance between the narrative events and your engagement with them, fostering a more

immediate and immersive experience. In this sphere of meaning-making through storytelling

and story-reading, we – participant, reader, and researcher-weaver – meet each other in a

virtual space of understanding, making sense of the narratives as they unfold before and within

us.

Table of Contents

List of Tables

List of Figures and Illustrations

Definition of Terms

Artography (A/r/tography)	Dynamic interdisciplinary practice-based research methodology, grounded in the physicality of creativity, and blending visual, narrative, poetic, and performative arts
Asynchronous	Happening outside the boundaries of real-time, often involving moving within the same pace as others, but at different times
Channel	Tool or mode through which communication processes take place
Chronemics	Nonverbal cues related to the organization, use, and perception of time
Common nonverbal cues	Nonverbal cues conveyed through body language, kinesics, and paralanguage, including facial expressions, movements, gestures, and vocalics.
Communication	Process of exchanging messages using verbal or nonverbal cues
Deep learning	Learning approach involving higher order thinking skills and profound understanding of the subject content to relation to application
Deeper learning	Umbrella term representing the spiral-like nature of experiential, collaborative, reflective, memorable, and transferrable learning involving desirable attributes of contemporary education including cognitive, interpersonal, and intrapersonal domains
Discussion forum	Feature of the learning management system (LMS) that participants in online course use to engage in written discussions
Discussion-based	Instructional approach promoting interaction and participation in the group dialogue for learning purposes; in this study, it refers to the asynchronous, online discussions

Discussion-based teaching (DBT)	Systematic use of discussions in the educational environment to accomplish curricular objectives
Emergency remote teaching	Sudden temporary shift of in-person courses to online platforms due to the COVID-19 pandemic
Engagement	Effort devoted to achieving individual or social goals and involving emotions, participation/interaction, skills, and performance; due to its relational nature, it is malleable and responsive to context
eNVC	**E**lectronic **n**onverbal **c**ues exchanged through text-based electronic communication channels, which people perceive and draw meaning from beyond the use and connotation of written words
Face-to-face	Real-time communication among individuals able to see each other (in-person or through synchronous video-conferencing channels)
Found poem	A poetic composition created using only words, phrases, or quotations selected and/or rearranged from an existing text
In-person	Communication among individuals who are physically present in the same physical space and place
Interaction	Two-way, complex, interpersonal form of communication that involves reciprocity in actions and responses
Negative space	The empty areas surrounding or between the main subjects or forms in an artwork
Nonverbal behavior	Subcategory of nonverbal cues referring more specifically to the dynamic actions and behaviors that occur during interpersonal interactions

Nonverbal communication	Process of meaning-sharing among people beyond the use and connotation of written and/or spoken words (including but not limited to facial expressions, gestures, vocalics, chronemics, and proxemics)
Nonverbal cues	Broader category than nonverbal behaviors, involving actions, events, or symbols that people attribute meanings to or draw meanings
Online course	In this study, it refers to the educational courses offered via the Internet in which communication takes place asynchronously using written text
Paralanguage	Non-lexical component of the spoken language, including the voice tone, pitch, speed, etc. (also known as vocalics or prosody)
Praxis	Process by which learning becomes practical through reflexivity
Proxemics	Nonverbal cues related to the use of distance or space, also referred to as intimacy
Reflection	Contemplation and assessment of one's thoughts about own actions
Reflexivity	Thinking processes involving examination of *self* and *self-in-relation* to others in ways that inform praxis
Synchronous	Happening in real-time
Verbal	Using spoken and/or written words

Definition of Tapestry-Weaving Terms

Bobbin	A spindle or cylinder used to hold yarn or thread
Cartoon	A detailed design or drawing that serves as a model for a tapestry
Changing Shed	The process of changing the position of the warp threads to create a shed through which the weft threads can be passed
Fringe	The decorative border of loose threads on a tapestry (in my tapestry, the fringe is at the bottom)
Hatching	A shading technique used in tapestry to create shading or tonal variations by spacing parallel lines in different colors or shades
Heddles	Small vertically oriented strings with loops or eyelets that hold the warp threads and control their movement while weaving
Irregular Hatching	A variation of hatching with inconsistent or non-uniform shading patterns
Loom	A device used for weaving fabric by interlacing warp and weft threads. For this study, I used a **frame loom** that consists of a rectangular frame with parallel sides and two perpendicular sides
Meet and Separate	A weaving method where two or more weft threads move in opposite directions in the same row to form visual effects (including hatching or irregular hatching)
Needle	A tool used to pass the weft thread over and under the warp threads
Negative Weaving	A technique where the design is created by leaving certain areas unwoven, exposing the warp threads which are typically covered by weft threads
Passage	The path taken by the weft thread over and under warp threads to create the tapestry

Path	The direction or route followed by the weft thread through the warp threads in a single row of weft
Pick	The single insertion of the weft thread, corresponding to one horizontal row of the tapestry
Pick and Pick	A weaving technique where two coloured weft threads alternate in successive pics to create narrow vertical stripes
Rya	A knotting technique that involves folding a thread in half to form a loop that is positioned around a warp thread, then the loose ends of the rya are brought up and passed through the loop to create a secure knot
Shed	The space between the warp threads that the weft thread passes through
Shedding Device	A part of the loom that helps create the shed
Tension	The tightness of the warp threads on the loom
Warping	The process of arranging the warp threads on the loom
Warping Bar	A bar on a loom used to keep the warp threads in order
Warp	The set of lengthwise threads held in tension on a loom
Warp Thread	The threads that run vertically on a loom
Weft	The threads that are woven over and under the warp threads to create a tapestry
Weft Bundling	A technique where multiple weft threads are bundled together and woven as one
Weft Thread	The threads that are woven horizontally through the warp threads

ENVC & DEEPER LEARNING

CHAPTER 1

WARP & WEFT

From warp to weft, images grow,
In every thread, stories flow.
Reflexively, a light does glow
When deeper learning starts to show.

Chapter 1: Warp and Weft

(Introduction)

In this opening chapter, I introduce the topic of my study, highlighting its resonance with communication in online course asynchronous discussions, and emphasizing the often overlooked yet crucial nonverbal aspect of such interactions. The titles of this chapter and subsequent ones draw inspiration from my foray into the world of tapestry-making. This hands-on endeavour, carried out in tandem with my research, was sparked by my curiosity to unravel an analogy by Burgoon et al. (2010), where they liken the intertwining of verbal and nonverbal cues to the weaving of threads in a tapestry.

Fascinated by this analogy, I decided to weave a tangible tapestry representing the participants' narratives and my own experiences. This creative and tactile undertaking offered a unique, embodied perspective into my research puzzle. It enabled me to grasp concepts explored in my study in a way that transcends conventional academic approaches, which primarily rely on cognitive ways of knowing. Through this process, I discovered that the act of weaving mirrors the reflexive nature of my research journey. It also fosters my personal growth and transformation into a researcher-weaver and a deeper learner, allowing me to integrate my whole *self* into this scholarly endeavour. The nuances of this transformative journey through weaving are further explored in Chapters 3 and 6.

As for the title of this chapter, *Warp and Weft*, it reflects the names of threads essential for making a tapestry. In the tapestry sphere, *warp* refers to the vertical threads held in tension on a frame or loom, while *weft* describes the threads that interweave with the warp to create the final tapestry. Both elements are fundamental to the weaving process, just as this chapter serves as the foundation of my dissertation.

Within this chapter, I lay out my rationale for selecting this particular research topic, describe the background of the study, and highlight the intertwining of verbal and nonverbal cues in the communication process. Furthermore, I clarify the purpose of this project and introduce the research puzzle and methodology, situating my research topic and its significance for online learning. By doing so, I aim to set the stage for the forthcoming chapters in this dissertation.

Topic Introduction

"[V]erbal and nonverbal behaviors are like strands in a tapestry, inextricably intertwined …to form a complex whole."

(Burgoon et al., 2010, p. 202)

Education is a social activity *par excellence*. At its core, it involves the sharing of knowledge, skills, values, and customs from one individual or generation to another (Chazan, 2022; Matheson, 2015). Therefore, it occurs through communication processes that enable meaning-sharing among participants in the educational environment. Due its pivotal role in creating an abstract space for minds to meet, communication has become a central topic in educational research (Vlachopoulos & Makri, 2019). This is particularly evident in recent studies exploring aspects of communication, such as interaction and engagement, especially during the pandemic-imposed remote teaching (Nambiar, 2020; Wut & Xu, 2021). Although the rapid shift to online learning has highlighted the significance of self-directed and self-regulated learning (Glick et al., 2023; Porcaro, 2023), this area remains outside the focus of this study. Nevertheless, it is important to note that the integration of artificial intelligence (AI)

tools, such as ChatGPT[1], exemplifies this trend, prompting educators to re-evaluate their roles in fostering autonomous learning experiences amidst these technological advances (Lo, 2023).

While much attention has been given to various facets of online communication, nonverbal cues often get overlooked. These cues are integral to the broader concept of communication, but they frequently receive scant attention, save for cursory mentions of immediacy and intimacy (Adnan, 2020; Dixson et al., 2017). Notable exceptions include research categorizing emojis and symbols as nonverbal cues in text-based communication, especially in the context of social media platforms for educational purposes (Crombie, 2020; Gibson et al., 2018). Despite these considerations, the threads of verbal and nonverbal cues in online asynchronous course discussions are yet to be woven into the tapestry of communication.

To narrow the gap in literature, I wove some of these verbal and nonverbal threads into this dissertation to explore whether electronic nonverbal cues (eNVC) contribute to deeper learning through interaction and engagement in online asynchronous discussions. Adopting a qualitative approach through an interpretivist/constructivist lens, I began this dissertation using a methodological bricolage (Kincheloe, 2001; Kincheloe et al., 2018), centered around reflexive narrative. In doing so, I positioned myself as a researcher-weaver and deeper learner, acknowledging my multifaceted identity as an artist, researcher, and teacher. This identity is represented by the letters a/r/t in a/r/tography (Irwin & De Cosson, 2004; Springgay et al., 2005). However, while engaged in weaving a tangible tapestry for this dissertation, the intertwining of art-making and text saw artography emerge as the overarching methodology

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[1] An advanced Generative AI and large language model developed by OpenAI for simulating human-like conversations and answer questions on a wide range of topics

closely linked to reflexive inquiry. It is worth noting that due to the overlapping facets of my

identity and my desire to integrate my whole *self* into this study (as explained in the

positionality section of Chapter 3), I omitted the slashes from a/r/tography and related terms

throughout this dissertation, taking a cue from Sinner et al. (2021). Regarding the *graphy*

dimension, this approach seamlessly incorporates narrative methods into its framework.

To enact this narrative-oriented *graphy* element, I partnered with six participants who

were well-versed in higher education online learning prior to the shift to emergency remote

teaching due to COVID-19 (Hodges et al., 2020). Our collaboration led to the co-construction

of meaning in "mutually interdependent and co-creative ways" (Hoven & Palalas, 2016, p.

127), as we exchanged narratives about our experiences of eNVC in asynchronous discussion

forums. Motivated by the previously-mentioned poignant metaphor by Burgoon et al. (2010),

who liken verbal and nonverbal behaviors to threads in a tapestry, and driven by my curiosity

to understand this at a deeper level, I not only adopted the tapestry as a guiding metaphor for

this study but also committed to actualizing it. Consequently, I endeavored to weave a tangible

tapestry for this dissertation, drawing inspiration from the participants' narratives and my own

experiences with eNVC in online courses. This endeavor illustrated the role of eNVC in

fostering deeper learning through interaction and engagement in asynchronous discussions.

The rationale behind concentrating this research on asynchronous discussions springs

from their notable absence from the list of teaching strategies utilized during the abrupt pivot to

online teaching during the pandemic. Although discussion forums have been the primary tools

for distance education offered online (Smith, 2019), studies to date indicate that instructors

predominantly relied on video technologies for emergency remote teaching (Fox et al., 2020;

McCabe et al., 2023; Means et al., 2020). Even after receiving professional development and

setting aside time to prepare for the terms following the swift transition to remote instruction, "faculty anticipate continued use of video-based technologies post-pandemic" (Johnson et al., 2021, p. 35). As the pandemic subsides, adjustments in educational practices indicate a trend in this direction (Guppy et al., 2022). This preference for virtual, synchronous sessions over discussion forums may stem from the availability of video-enabled technologies and limited knowledge about discussion-based online teaching, facilitation, and learning. As a result, this study culminates in a set of recommendations to guide good practices for instructors transitioning to online teaching. These insights also serve to assist course designers, administrators, and educational institutions in their endeavors to enhance the quality of online education.

Since this study focuses on asynchronous discussions in online courses, the expressions *online* and *discussion-based* used throughout this dissertation refer to asynchronous, text-based online learning, while the term *virtual* refers to synchronous, remote teaching. Another point that I elaborate upon in the Background section of this chapter is that eNVC are nonverbal cues exchanged exclusively through *text-based* electronic channels (Al-Tawil, 2019). Video and audio communication are excluded from the study of eNVC because these mediums enable the exchange and perception of traditional nonverbal cues, such as facial expressions and vocalics, in ways that approximate in-person interactions. Despite the inability of facial expressions and gestures to penetrate electronic text-based communication, eNVC can enrich the process, allowing for meaning-making and development beyond the use of words – a topic that I discuss in the following section on the research rationale.

In line with the artographic methodology that I discuss in Chapter 3, the following section constitutes an unconventional presentation of the research rationale, followed by an

exploration of the research background, puzzle, and purpose. After that, I introduce my role in this study as an artographer and a deeper learner, followed by the research questions and significance. This chapter concludes with an overview of discussion-based teaching (DBT) in online courses, emphasizing the benefits of asynchronicity in distance education and the critical role that instructors play in facilitating these discussions. Additionally, it provides an outline of the dissertation organization with a brief explanation for each chapter.

Research Rationale

From a communication perspective, if you, dear reader, can read these lines and understand, either fully or partially, the meaning and intent of my message, then you and I are communicating using the written symbols – or code – of the English language. We also utilize some relatively new technological tools (such as electronic devices, word processors, and the Internet) as our communication channel. During this communication process, what happens if my next line reads:

هل لديك القدرة على قراءة وكتابة اللغة العربية ؟

Unless you decipher – with or without help – the code of the Arabic written language, you will not understand the textual meaning of the previous sentence. Let us assume, for the sake of argument, that you do not know how to read Arabic. Does this preclude all communication between us? Can my choice to write in Arabic convey aspects of my identity that you might perceive and interpret – or possibly misinterpret – in ways that could affect our interaction? Observing the visual aspect of the Arabic sentence, would you wonder if I am asking a question? Could your curiosity be piqued to the point of copying and pasting the question into Google Translate to decipher its meaning?

Suppose you provide an affirmative response to at least one of the aforementioned questions. In such a case, you might realize that online text-based communication entails more than merely conveying ideas and information through the written text. The Arabic sentence, within the context of this chapter, could influence our future interactions or prompt us to engage in some actions (such as translating the Arabic text into another language). Therefore, the inability to decode textual content does not entirely impede the communication process because individuals may *read between the online(s)* to draw meanings from wordless messages (Al-Tawil et al., 2020). This same principle is applicable within the online learning environment, where participants primarily communicate by posting textual messages in discussion forums.

Background

Asynchronous discussions in online courses are often viewed as lacking meaning-sharing through nonverbal cues, with a few exceptions such as the mentions of emoticons, emojis, and textual paralinguistics – or text-speech (Crombie, 2020; Luangrath et al., 2017; Rodrigues et al., 2017). However, the topic of nonverbal communication is rarely explored in distance education literature, particularly in relation to asynchronous discussions. Yet, as shown in the Research Rationale section, communication can occur through wordless cues embedded in textual messages, including those posted in online course discussion forums.

In communication studies, wordless messages fall within the category of nonverbal communication, which includes any signs and behaviors that people attribute meaning to (Buck & Knapp, 2006; Burgoon et al., 2010; Burgoon et al., 2022; Knapp et al., 2014; Sebeok, 1975). Although the popular understanding of nonverbal reduces it to facial expressions and gestures, as an area of study, nonverbal cues encompass "all human communication that transcends

spoken or written words" (Knapp et al., 2014, p. 27). To elaborate on this notion, Matsumoto et al. (2016) distinguish between nonverbal cues and nonverbal behaviors by stating that the latter is a subcategory of the former and "refers more specifically to the dynamic of actions and behaviors that occur when people are interacting with one another or with the environment" (p. xix). This is the view that I adopt in this study, alongside the understanding that the nonverbal does not necessarily mean the opposite of verbal since these two occur in combination within the broader communication system (Bavelas, 1994; Knapp et al., 2014; Trenholm, 2021). This combination resembles the intertwining of strands in a tapestry, as described by Burgoon, Guerrero, et al. (2010).

Building on this analogy, I picture the nonverbal strands in online discussions as the warp through which the verbal weft is interwoven. Although in a finished tapestry, patterns of colored weft threads hide the plain warp, they do not exist independently from it. Similarly, words only exist with the (sometimes less visible) behaviors associated with them. Both strands interrelate in ways that provide a complete meaning during the complex communication process in any social setting, including the online learning environment. Echoing Ekman (1965a), Knapp et al. (2014) list six ways verbal and nonverbal strands interrelate during human interactions: repeating, conflicting, complementing, substituting, accenting/moderating, and regulating. I further explore these interrelations in the following sections.

Verbal and Nonverbal Interrelation

Drawing upon earlier research findings on face-to-face communication, Knapp et al. (2014) note that when verbal and nonverbal messages conflict, it "is often assumed that nonverbal signals are more believable" (p. 17). They further clarify that "nonverbal behavior may accent (amplify) or moderate (tone down) parts of the verbal message. Accenting is much

like <u>underlining</u> or *italicizing* written words to emphasize them" (p. 19). The remarkable aspect of this quote is that, by <u>underlining</u> and *italicizing* these words, the authors use a form of eNVC to illustrate a point related to nonverbal cues exchanged during face-to-face interactions. Additionally, Knapp et al. explain that these cues regulate the flow of conversations, implying that their equivalents in textual communication, such as special formatting, might have a comparable effect on interactions in text-based discussions.

These descriptions, among others detailed in Chapter 2, underscore the intertwining of verbal and nonverbal strands within the communication tapestry. They suggest that nonverbal cues have the potential to shape the meaning, perception, and impact of verbal messages. Therefore, verbal communication does not occur independently of its nonverbal counterpart. However, the reverse is not necessarily true. According to the substituting category, nonverbal cues "can be the message" because they "can occur without any words being spoken simultaneously" (Matsumoto et al., 2016, p. xxi). The emphasis of this statement on simultaneous, spoken words raises the question: does the same principle apply to asynchronous, written words in discussion-based courses? Providing a short, definitive answer to this question is challenging, primarily because researchers approach nonverbal communication from different disciplinary perspectives.

Foundations of Nonverbal Cues

Studies on nonverbal communication have roots in multiple disciplines including anthropology, sociology, psychology, aesthetics, and linguistics (R. T. Craig, 2012). This disciplinary diversity results in differing, and sometimes divergent, assumptions when responding to questions like the one posed at the end of the previous paragraph. For example, a linguistic approach, considering nonverbal communication as a subset of pragmatics, might

accept the textual nonverbal and discard the stand-alone characteristic of the nonverbal message. Conversely, other disciplinary approaches, such as sociology or anthropology, would affirm the independent existence of nonverbal behaviors, likely limiting them to face-to-face social interactions. Such views emanate from the findings of systematic studies on nonverbal communication, which I elaborate on next.

Systematic Studies. While scientists may disagree on the exact timeline and stages of language development, there is a general consensus that nonverbal communication predates all forms of linguistic expression (Frank & Shaw, 2016). As a phylogenetically older communication system, nonverbal cues are so ingrained in human nature that their use often overshadows verbal messages (Burgoon et al., 2022; Frank & Shaw, 2016).

Pioneers in nonverbal research, such as Ray Birdwhistell (1952, 1970), Edward T. Hall (1959, 1966), and Paul Ekman (1964, 1965b) apply systematic approaches to delve into this field. Drawing inspiration from Darwin's (1872) theories on emotions and facial expressions, they primarily focus on the significance of such nonverbal cues in conveying messages related to emotions, personality, and attitude (Keating, 2016; Todd & Funder, 2016).

Perhaps the most frequently cited formula in this area is the one proposed by Albert Mehrabian and colleagues, which defines the relative importance of three forms of communication as follows: 7% verbal (spoken words), 38% vocal (tone of voice, inflection), and 55% facial expressions (Mehrabian & Ferris, 1967; Mehrabian & Wiener, 1967). Despite its limitations, this formula has attracted considerable attention, sometimes leading to erroneous interpretations and generalizations. This attention likely stems from common perceptions about the supremacy of nonverbal cues in communicating genuine internal states,

which can significantly influence social interactions, including those within the online learning environment (Bambaeeroo & Shokrpour, 2017; Bunglowala & Bunglowala, 2015).

Personal Justification

As I wrap up the previous paragraph, my mind drifts back to the times when I was a student in a traditional brick-and-mortar school, and I felt that my teachers were genuinely teaching from the heart. Reflecting on the special characteristics of these teachers, I realize that I cannot recall their exact words. Instead, I remember how their words intertwined with their smiles, their responses to specific situations, and even the timbre of their voices. I also contemplate how their behaviors influenced my feelings, thoughts, and actions both inside and outside their classes. In this respect, I recall my engagement in the subjects they taught, considering these teachers as role models and emulating some of their behaviors. To a certain extent, I continue to embody some of their teaching approaches in my current role as an adult educator. Experiencing such a nurturing atmosphere in a face-to-face context led me to initially assume that a similar level of care might not exist in a text-only learning environment.

The fear of missing out on what I later learned to be *teacher immediacy* also prompted me to dismiss the option of joining an online graduate program. Despite my strong desire for further studies, I resisted the notion of distance education for a long time, presuming it lacked a *human touch*. With a background in communication studies and corporate training, I made quick calculations and concluded that once what is commonly known as body language and paralanguage were removed from the equation, the remaining 7% of the communication process in the learning environment would not be sufficient for meaningful interactions with my instructors and peers. I feared that without such interactions, I might not engage in my studies and might fail to achieve deeper levels of learning.

This line of reasoning persisted until I came to understand that my assumptions were obstructing the attainment of my lifelong goals. Eventually, considering my personal circumstances, which I detail in Chapter 6, I capitulated and enrolled in a fully online master's program. In retrospect, I recall feeling somewhat less privileged than my husband, who had the chance to complete his studies in an on-campus environment, while I had to settle for a less popular choice. Little did I know at the time that this decision would open the world of online learning to me, providing opportunities to experience and research it, shortly before distance education became mandatory due to COVID-19 restrictions.

Situating the Research Topic

If I were writing this section in the pre-COVID-19 era, I might have started it with statistics showcasing the increasing popularity of online education and asynchronous discussions as their primary instructional strategy. However, conducting research during the pandemic requires considering the new reality that COVID-19 imposed on every aspect of social structures, including education. Although academic studies on emergency teaching are still evolving, findings to date suggest that educators favor synchronous video technologies over asynchronous discussions (Fox et al., 2020; Johnson et al., 2021; Majewska & Zvobgo, 2023; Means et al., 2020; Wut & Xu, 2021).

Observations of my children's transition to remote schooling along with personal conversations with educators worldwide indicate that faculty members seldom consider using asynchronous discussions for remote teaching. Reasons range from unfamiliarity with discussion forums to a lack of knowledge about how to facilitate online discussions in ways that promote interaction and engagement. Even when creating a collaborative learner-centered environment is at the heart of instructors' in-class pedagogy, emergency remote teaching

shifted their focus from *why* they teach to *how* to teach online. The result, so far, appears to be a reimagined, technology-enabled format of the transmissive instructional approach.

While answers to the *why* of teaching may be as diverse as faculty members themselves, I am inclined to believe that *caring* for learners' personal, social, intellectual, and professional growth is at the *core* of each. Since care is partially conveyed and perceived through nonverbal cues during in-person interactions, is it possible for faculty who naturally demonstrate a caring attitude towards students with a genuine smile, a tender look, and a kind voice to do the same in an asynchronous discussion?

Although such cues do not exist through textual communication in discussion-based courses, eNVC do, and like other forms of nonverbal communication, they exchange messages "related to impressions, relationships, and affective states" (Burgoon et al., 2011, p. 242). Therefore, I am inclined to provide a positive answer to the question posed in the previous paragraph, particularly based on my experiences as a first-time online learner. During that time, I encountered an online instructor who communicated with our class solely through text. Yet, I perceived her as genuinely teaching from the heart - a theme I explore in greater detail in Chapter 6.

However, for the purposes of this opening chapter, I want to emphasize that nearly a decade after taking that course, I still reflect on what made me perceive this instructor as teaching from the heart. One noticeable aspect was her strategic use of time, a facet of nonverbal communication known as chronemics. For instance, she knew when to engage in the course discussions in ways that made me feel her palpable presence Additionally, her posts were succinct, and occasionally punctuated with emojis. While such features of eNVC are not

entirely absent from distance education literature, they are rarely woven into a broader

communication context.

Interaction and Engagement in Asynchronous Discussions

Perceptions and behaviors related to interaction and engagement in online

asynchronous discussions have been the central focus of various studies for over a decade

(Andresen, 2009; da Silva et al., 2019; Henning, 2008; Watts, 2016). Often, these studies

produce mixed results; some underscore the benefits of online courses, while others provide

evidence of lack of interaction that can lead to dissatisfying learning experiences for both

faculty and students (Clarke & Bartholomew, 2014; Hanna et al., 2013; Reilly et al., 2012).

Recognizing the limitations of asynchronous discussions, typically manifested through subpar

student participation, has led some scholars to propose facilitation strategies that boost

interaction and engagement in discussion forums (Clarke & Bartholomew, 2014; Ergulec,

2019; A. Z. Smith, 2017). Many of these strategies relate to perceptions and use of eNVC in

discussion forums. However, despite the critical role nonverbal cues play within the broader

context of communication in any educational setting, including discussion-based courses,

research on eNVC remains scant.

Research Puzzle

As mentioned in the previous paragraph, facilitation strategies that scholars identify as

promoting interaction and engagement in discussion forums touch upon nonverbal cues – such

as the timing, length, and frequency of posts (Hew & Cheung, 2012). Yet, connections between

these strategies and the nonverbal facet of the communication process frequently appear to be

overlooked in distance education literature. Even though nonverbal and verbal cues are

inextricably intertwined, it is easy to neglect the nonverbal aspect of interactions in

asynchronous discussions, possibly due to two prevalent misconceptions. The first relates to

the presumption that nonverbal communication is confined solely to facial expressions,

gestures, and paralanguage. This perspective leads to the assumption that in the absence of

these cues, nonverbal communication is largely absent, except for the utilization of emojis or

emoticons. The second misconception that surfaced in the preliminary stages of researching

eNVC concerns the common association of the term *verbal* with *spoken* language. As a result,

people assume that text-based communication platforms are inherently void of nonverbal cues.

As outlined in the examples and definitions at the start of this chapter, nonverbal

communication encompasses cues extending beyond facial expressions and gestures, such as

chronemics, proxemics, and silence (Burgoon et al., 2022; Keating, 2016; Knapp et al., 2014).

Many of these cues can penetrate asynchronous textual communication channels as eNVC,

potentially influencing learning experiences. Walther (2006) emphasizes this capability of

nonverbal cues in computer-mediated-communication (CMC), stating that "future theoretical

and technological development requires more exacting research on nonverbal communication

in an area once thought to be devoid of such features" (p. 461). Almost 18 years later, this

subject remains under-researched, leading to an insufficient understanding of its importance,

particularly regarding the asynchronous online learning environment.

In the Personal Justification and Situating the Research Topic sections, I reveal how my

interest in eNVC arises from my background in communication studies and personal

experiences as an online learner. During my studies in my first fully online program, I

gradually noticed that the more I engaged in discussion forums, the more I became aware of

the potential impact that certain eNVC could have on both my own learning experiences and

those of my peers. What started as curiosity in my second online course evolved into a passion

for researching nonverbal cues exchanged via electronic channels in text-based communication.

Following the spark of my initial interest in eNVC within discussion-based courses, I encountered challenges when trying to locate resources addressing this topic. For two years, I puzzled over the gap in literature concerning the electronic aspect of nonverbal communication and the potential impact it may have on the learning environment. In response to this, I conducted a study in 2016 to explore various eNVC categories and their possible influence in text-based, asynchronous online learning courses (Al-Tawil, 2019). The findings from my previous study suggest that in online course discussions, participants compensate for the absence of traditional nonverbal cues by drawing meanings from at least four categories of eNVC, which include (see Figure 1):

- Chronemics: This category pertains to the expression of time in communication through the pace, frequency, and cyclical nature of posts, as well as the time participants take to prepare, reflect upon, and respond to others' posts.

- Absence / Pauses: This category refers to the absence from the course discussions either in the form of no response or pauses in communication. This can be interpreted as a form of nonverbal communication because silence or pauses can convey certain meanings depending on context and expectations.

- Two-Dimensional (2D) Visuals: This category is associated with surrogate forms of facial expressions or gestures in the form of digital pictographs (e.g., emojis and emoticons) and other 2D visual representations such as illustrations, diagrams, charts, and pictures.

- Electronic Style, Effort, and Tone (eSET): This category is comparable to vocalics in spoken communication and can be closely connected with 2D visuals. eSET refers to the *style* and *tone* of writing, in addition to the *effort* participants put forth to prepare and present ideas clearly and effectively.

Figure 1

Mind Map of eNVC Categories and Their Potential Influence (Al-Tawil, 2019)
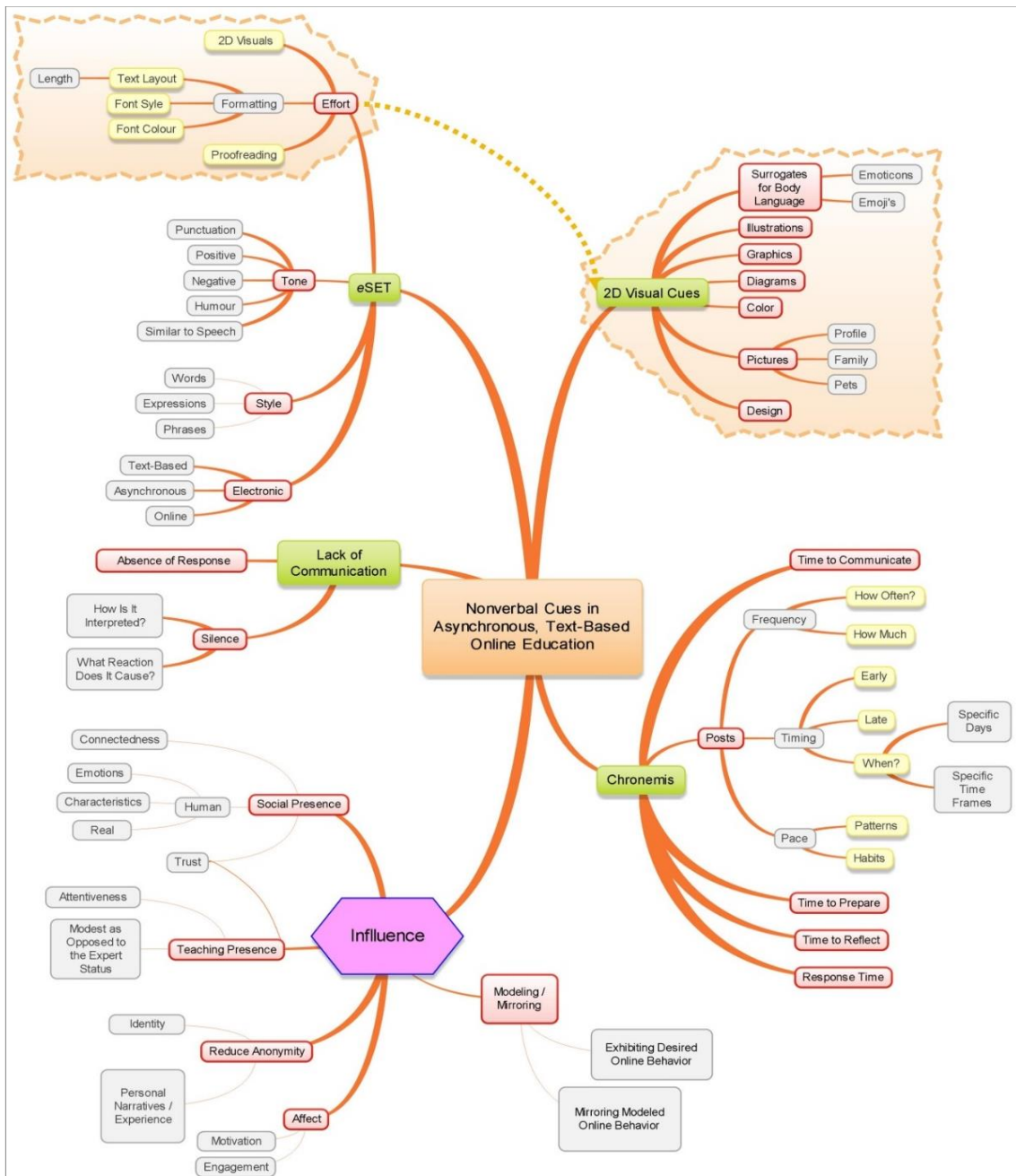
In addition to these categories, findings from my previous research suggest that eNVC has the potential to influence perceptions of learning experiences in discussion-based online courses. Despite these implications, this field remains notably under-researched. Even though some nonverbal components - such as emojis, textual-paralinguistics, and/or silence - are investigated, they are often studied independently from inherent nonverbal characteristics. This disconnection from the broader concept of communication provides only a partial understanding of their potential impact on the experiences of both learners and instructors in online courses.

Purpose

To address the research puzzle described in the previous section, I adopted a qualitative approach, aiming to investigate how eNVC impacts deeper learning through interaction and engagement in asynchronous online course discussions. The goal of this study was to delve into the perspectives of experienced higher education online instructors and learners, thereby gleaning insights that can inform effective online teaching and learning practices.

Inspired by Burgoon et al.'s (2010) tapestry analogy and recognizing that experiences are as diverse and unique as the individuals who live them, I found artography to be a suitable methodology for this study. This approach allowed me to explore meanings conveyed, perceived, and interpreted within the intricate tapestry of the participants' narratives combined with my own experiential views. To do so, I positioned myself alongside the participants, not just as a researcher, but also as a researcher-weaver and a deeper learner as I elaborate in Chapters 3 and 6.

Much like weaving together threads to create a unique tapestry, this research approach assembled diverse strands of experiences, perceptions, and behaviors associated with eNVC to

form a cohesive, comprehensive understanding. Consistent with the epistemological and ontological assumptions of narrative research methods, the aim of this study was not to seek generalizable findings but to foreground the particularities of personal experiences (Clandinin, 2022; Clandinin & Rosiek, 2007; M. K. Kim et al., 2020).

Overview of the Research Process

To gain insight into nonverbal communication and deeper learning in online courses, I followed an emergent, organic research process that evolved as new directions arose. Initially adopting a qualitative approach rooted in a reflexive narrative inquiry, this methodology aligned with my desire to generate knowledge through the ongoing exploration of *self* and *self-in-relation* to inform the development of praxis (Cunliffe, 2016; Lyle, 2014). However, as I engaged in weaving a tangible tapestry to represent the complex intertwining of verbal and nonverbal cues in online communication, artography organically emerged as an apt overarching methodology, reflexive and relational in character (Irwin, 2013; LeBlanc & Irwin, 2019). The interplay between artistic and reflexive inquiry while gathering and interpreting narratives illuminated new ways of knowing for me, as I detail in Chapter 3.

To enact the narrative facet of artography, I collaborated with six participants for this study. Through this collaboration I aimed to gather narratives about their respective experiences with discussion-based online courses. In an effort to ensure balanced perspectives, the participants were divided equally between students and instructors, based on the roles they held when I first met them, and where they had the most experience with asynchronous discussion forums.

Following initial communication, I conducted a virtual semi-structured interview with each participant. The narratives shared during these meetings inspired the design of the

tapestry, as I found myself repeatedly listening to the interview recordings while weaving for approximately six months. Subsequently, I transcribed the interviews, storied and restoried the narratives, and worked with each participant according to their preferences to finalize the scripts. I then (re)presented portions of these narratives in story and poetry format, bringing the participants' voices and words to the fore. Additionally, I manually analyzed the final versions of the participants' narratives using Nvivo12 Plus.

The specific steps of the research process are detailed in Chapter 4, while portions of the restoried narratives are presented in Chapter 5, and the outcome of the data analysis is discussed in Chapter 7 and Chapter 8. At every stage of this research process, I adhered to the ethical requirements and academic rigor required to contribute to the body of literature on eNVC in online courses.

Scope

The scope of my dissertation is limited to interpersonal interactions and engagement in discussion-based online courses. This precludes the research from video/audio activities taking place either synchronously or asynchronously, as well as live virtual sessions, delayed-synchronous chats, and interactions outside the online course environment (e.g., through social media platforms). Further, my study aims to explore the nonverbal dimensions of communication within asynchronous discussion forums, rather than focusing on the self-directed facets of online learning or the associated technological tools. Given that the narratives were storied and restoried in English, the scope was also restricted to participants who are fluent in both spoken and written English, as I detail in the Limitations and Delimitations section of Chapter 4.

Additionally, the inclusion criteria for the participants comprised of instructors and learners who had been actively involved in a Canadian-based higher education discussion-based online courses for at least one year before the onset of COVID-19. The exclusion criteria applied to those whose experiences were solely with synchronous online education or during the pandemic-driven shift to emergency remote teaching.

Research Questions

To address the research puzzle discussed earlier in this chapter, particularly the gap in literature around the potential influence of eNVC on deeper learning, I frame my puzzle as two main research questions and two subquestions as follows:

1. What aspects of eNVC contribute towards interaction and engagement that lead to deeper learning in the asynchronous, discussion-based online learning environment?

    1a. What aspects of eNVC do instructors perceive as promoting or hindering interaction and engagement in asynchronous online course discussions?

    1b. What aspects of eNVC do learners perceive as promoting or hindering interaction and engagement in asynchronous online course discussions?

2. From the inter-storied responses of the instructors and learners, what recommendations emerge for the use of eNVC and how they may lead to deeper learning?

Research Outcome

The second main research question lays the foundation for the research outcome. In line with the fluidity of my methodological approach, the themes of this study remained unknown until the completion of data analysis, visualization, and interpretation. However, having experienced online instructors and learners telling narratives about their perceptions of

behaviors promoting engagement and interaction in discussion-based courses implied that their

stories would include one or more of the aspects listed below:

- challenges they encountered as first-time online students or instructors, particularly in

  communicating with other course participants through asynchronous discussions;

- strategies they found effective in surmounting the challenges they or others faced in

  adapting to discussion-based online teaching or learning;

- observations of eNVC they perceived and interpreted as either fostering or obstructing

  interaction and engagement in discussion forums;

- lessons learned about facilitating and/or participating effectively in asynchronous

  discussions;

- instances of nonverbal behaviors they or others employed to advance deeper learning

  through interaction and engagement in the discussion forum; and

- suggestions for effective online teaching and learning strategies, particularly

  concerning the use of eNVC in discussion-based courses

The narratives shared during data gathering addressed many of the aforementioned

points, as shown in Chapter 5. I interpreted these narratives both in art-form through the

tapestry weaving and, textually, via restorying. After the participants approved the restoried

versions of their narratives, I analyzed and interpreted them, searching for emergent themes

relevant to the research puzzle. As a result, four themes emerged along with a set of

recommendations aimed at enhancing the asynchronous online learning experiences of

instructors and learners. Some of these recommendations can be valuable for the professional

development of instructors transitioning into the online teaching landscape. These outcomes

are rooted in the philosophical underpinnings of artography and reflexive inquiry pertaining to

praxis, which I discuss in Chapter 3. In essence, these foundational beliefs originate from the nature of storied experiences being educational in the sense that people tell stories about their lives, or the lives of others, to set a direction for the development of praxis (Clandinin, 2013; Cunliffe, 2016; Lyle, 2014, 2023).

Significance

This study contributes to the body of literature on nonverbal communication in distance education. This area has either been overlooked or explored separately from its inherent communicative features in online courses. Consequently, the findings from this study aim to foster an understanding of the potential role that eNVC might play in promoting interaction and engagement leading to deeper learning in discussion-based online courses.

Over the past decade, deeper learning has emerged as a comprehensive term encapsulating the skills required for twenty-first-century learners to succeed in education and civic life (Darling-Hammond & Oakes, 2019; National Research Council, 2012; Pereira & Wahi, 2019). As I explain in Chapter 2, deeper learning includes deep learning approaches, along with competencies directly related to interaction and engagement – such as collaboration, interpersonal, and intrapersonal skills (Mehta & Fine, 2019; National Research Council, 2012). Considering that these skills apply to both instructors and learners, this study does not view deeper learning as exclusively student-focused within discussion forums. Instead, it extends this concept to include the "professional students of their discipline, teachers [who] need professional development and knowledge-building opportunities throughout their careers" (Anderson, 2003, p. 5). Therefore, an understanding of the influence of eNVC in asynchronous discussions can enrich professional development programs for online educators. The research findings, themes, and recommendations could also inspire educational institutions and

instructional designers to adopt strategies that mitigate the risk of creating online courses resulting in disengaging online learning experiences for both learners and facilitators.

In addition to its academic implications, this study holds significant personal meaning for me. As a Lebanese-Canadian scholar who grew up, studied, and taught in Lebanon, it tears my heart apart to witness the pain that this country has been going through since the beginning of the anti-government protests in October 2019. Through no fault of theirs, students and teachers have been enduring disruptions in education that the pandemic, the Beirut catastrophic blast in August 2020, and deteriorating economic situation has brought to a disastrous point. Connecting with my family and friends in Lebanon sets me on an emotional roller coaster that fuels my aspiration to extend the outcomes of this research beyond its immediate context to the Arab World. It is my hope that by combining the knowledge acquired from this study with my proficiency in Arabic, I can assist educational institutions in Lebanon and neighboring countries in adopting effective online learning approaches.

Developing and facilitating online courses has become necessary after COVID-19 was declared a global pandemic in March 2020. The pivot to emergency remote teaching forced instructors to adjust their courses using new methods and tools (Baker, 2020; Johnson et al., 2021). Of these methods and tools, recent studies show that faculty mostly rely on synchronous video-conferencing (Fox et al., 2020; Johnson et al., 2021; Means et al., 2020). Consequently, asynchronous discussions are absent from the list, despite the recognition of such discussions as the primary instructional strategy for online education (Laurillard, 2012; Putman et al., 2012). The literature on the effectiveness of asynchronous discussions is plentiful, grounded as they are in the constructivist principles of discussion-based teaching (DBT).

Discussion-Based Teaching and Asynchronous Discussions

As an overarching educational concept, Discussion-Based Teaching (DBT) refers to the "systematic use of discussions to accomplish curricular objectives" (Henning, 2008, p. 2). Although DBT derives from Vygotsky's (1978) foundations of constructivism, it is often not the primary instructional approach in higher education, frequently taking a backseat to positivist pedagogies, such as lectures. Some argue that as higher education students mature academically, they require less instructor-led discussions (Baxter Magolda, 2004; Kizilcec et al., 2017; Perry Jr, 1999). Lectures can also be favored due to a perceived logistical necessity to convey course material to large student groups within the confines of the allocated time and space for each class (Brookfield & Preskill, 2012; C. Z. Cohen, 2018; Laurillard, 2012). Asynchronous discussions, by nature, do not abide by these same temporal and spatial constraints governing in-person discussions. Consequently, they liberate DBT from its limitations, enhancing its academic and social benefits manifold.

Beyond Spatiotemporal Constraints

One significant advantage of online discussions is their capacity to transcend spatial constraints, thus creating a virtual space where learners interact with peers and instructors beyond the boundaries of a physical location (Bender, 2012; T. W. Smith, 2019). Unlike traditional in-person discussions, which are affected by seating arrangements, online discussions create a "circle of voices" (Brookfield & Preskill, 2012, p. 63) where learners are equidistant from the instructor and each other. The liberation from physical proxemics in online courses gives each learner the opportunity to engage in ongoing discussions from afar while still being fully included. This inclusivity also stems from the temporal flexibility facilitated by asynchronous discussions.

Dispensing with time constraints in DBT provides learners and instructors with the time they need, within reason, to engage in profound reflection and respond when they feel most inspired (Bender, 2012; Giacumo & Savenye, 2019). Drawing connections between temporal freedom and deep reflection is a recurrent theme in literature. For example, Rose (2013) suggests that deep reflection occurs not just over time, but also outside the confines of time. These attributes of asynchronicity are relevant to this study due to the eNVC embedded in the time participants take and the effort they make to reflect on and articulate their ideas.

Furthermore, asynchronicity contributes to creating a more flexible learning environment than those found in synchronous text-based or video-enabled courses. This flexibility allows students to participate in discussions without having to be online at the same time (Bolliger & Martin, 2018). Moreover, unlike synchronous chats that progress linearly with time, asynchronous online discussions are usually threaded, allowing for multiple concurrent conversations (Hew & Cheung, 2012).

Threaded Discussions, Interaction, and Engagement

Online discussion forums facilitate the progression of postings and responses as a series of messages around the same idea, thereby creating a thread. Online discussion forums facilitate the progression of postings and responses as a series of messages around the same idea, thereby creating a thread. A thread is a hierarchical arrangement of linked notes in which each successive postings is written as a response to an earlier original posting in the discussion (Qiu, 2019). This visual display of threads aids participants in keeping track of the discussion flow. Beyond just the flow of discussions, their visual aspects form components of the contextual environment where verbal and nonverbal communication threads intertwine. Much like the threads in a tapestry that collectively form a larger picture, these postings and

responses have the potential to interweave to construct a comprehensive dialogue around topics discussed asynchronously.

Due to their asynchronous nature, threaded discussions allow multiple, concurrent conversations to occur. However, this feature, while beneficial, "can also create confusion among students, especially if the discussions are diverse and robust" (Hew & Cheung, 2012, p. 19). This complexity could lead to limited student contribution due to the high frequency of postings (Chen et al., 2012; Cheng & Kinshuk, 2020). While limited contributions can stem from various other factors (e.g., lack of interest or time), the frequency and length of postings constitute elements of eNVC that this study aims to explore concerning interaction and engagement in online courses.

One notable challenge in asynchronous discussions is minimal student participation. While participation does not directly equate to learning, it is crucial for collaborative knowledge construction that leads to meaningful learning experiences (Oh & Kim, 2016; Williams & Humphrey, 2019). Scholars identify several factors causing limited participation, many of which could be linked to the perception of eNVC – such as lack of response or behaviors reflected in the tone of postings (Hew & Cheung, 2012; Nakazawa & Tatsumi, 2019).

Instructor's Role

Theorists who offer strategies for maximizing interaction and engagement in online discussions underscore the instructor's role in designing and facilitating these discussions (Ergulec, 2019; Laurillard, 2012). Examples of such strategies relate to the structuring of the discussion cycles. This encompasses facilitation strategies such as implementing multiple deadlines for posts spread across the discussion cycle and providing regular feedback (Ergulec,

2019; Martin & Bolliger, 2018; T. W. Smith, 2019). Although these elements blend with the learning experience context, they include the instructor's use of eNVC that might influence students' perceptions and responses.

The instructor's level of intervention in online discussions is another nonverbal behavior to consider (Andresen, 2009; Larson et al., 2019). Scholars emphasize the instructor's role as being more akin to facilitation than direct instruction (Vaughan et al., 2014). Therefore, they recommend that instructors should encourage learner-learner interaction and intervene only when necessary (Guldberg & Pilkington, 2007). However, research also indicates that excessive instructor involvement can negatively impact peer-to-peer interaction, and thus striking the right balance is important (Larson et al., 2019; Martin & Bolliger, 2018). Additionally, effective professional development for online instructors is key for acquiring effective facilitation strategies, such as guiding student responses through thoughtful questions to promote engagement (Giacumo & Savenye, 2019).

Moreover, modeling/mirroring behaviors emerge as significant areas of consideration in this study. Notably, participants' narratives indicate that students are attentive to, and often emulate, specific actions such as the tone and length of postings, text formatting, use of emojis or pictures, making margin annotations, and inserting hyperlinks. In isolation, these eNVC strands may seem irrelevant to the depth of learning that DBT aims to achieve. However, when intertwined with the verbal strands of postings, they create a complete communication tapestry within the threaded discussions.

Chapter 1 Summary

Titled Warp and Weft, this opening chapter offers a thorough backdrop for my research topic, elucidating the factors that have inspired this exploration. The study primarily focused

on exploring aspects of nonverbal communication (eNVC) that may promote deeper learning in online courses through interaction and engagement in asynchronous discussions. Drawing from the tapestry metaphor – a symbol of the complex intertwining of verbal and nonverbal strands into a unified communication whole – I outline the various facets of my study in this chapter. This includes the motivations behind my decision to create a tangible tapestry as part of this research. I highlight artography as my research methodology and conclude this chapter with a discussion of asynchronous online learning environments, emphasizing the role of asynchronicity in liberating such spaces from spatiotemporal constraints. Thus, Chapter 1 sets the stage for the exploration of nonverbal communication in discussion-based online courses, establishing both the tone and direction for the subsequent chapters of this dissertation that I summarize next.

Dissertation Organization

This dissertation unfolds across nine chapters, each with its own unique theme symbolized through tapestry-making metaphors:

- **Chapter 1: Warp and Weft** introduces the research topic, laying the groundwork for the study. It includes the motivation behind the research, the research questions, and the significance of the study.

- **Chapter 2: Setting the Loom** consists of a comprehensive literature review relevant to the research topic, analogous to establishing a solid foundation for a tapestry in the process of setting up the loom.

- **Chapter 3: Changing Shed** presents the research methodological approach and draws parallels to the practice of altering the shed in tapestry weaving. It includes details on artography, underscoring its alignment with reflexive inquiry and my position as an

artist, researcher, and teacher approaching this study as a researcher-weaver and deeper learner.

- **Chapter 4: Pick and Pick** mirrors the alternating tapestry weaving technique with the same name. It includes a detailed account of the research design, stages of data gathering and analysis, ethical considerations, and the iterative process of interpretation.

- **Chapter 5: Meet and Separate** shares narratives from the study participants, grouped by their roles as either instructors or learners. This chapter includes profiles for each participant, found poems, and first-person narrative excerpts for authenticity.

- **Chapter 6: Peering Through the Warp Threads** presents significant moments of enlightenment that transpired throughout the research and weaving process, offering both a metaphorical and literal reflection on my journey of exploration. This chapter culminates with a line-mirrored poem that I crafted to encapsulate my experience as a story-weaver.

- **Chapter 7: Irregular Hatching** presents research findings that emerged from the analysis of participants' interviews in light of my tapestry-weaving experiences. It includes insights about the role of eNVC in promoting or hindering deeper learning in online discussion forums, from the instructors' perspective and learners' perspectives. Therefore, it addresses the two research subquestions.

- **Chapter 8: Weft Bundling** presents the themes and recommendations of the study, incorporating both the results from the interview analysis and insights of my reflexivity through tapestry-making. The first part of the chapter identifies the themes to answer the first main research question, whereas the second part presents

recommendations to improve asynchronous online learning, addressing the second
main research question.

- **Chapter 9: Selvedge to Selvedge** offers a comprehensive summary of the study,
represented metaphorically as an (un)finished tapestry. This chapter signifies the end
of the dissertation but not the end of my research journey. It also highlights the
ongoing nature my discovery and learning beyond the scope of the doctoral program.

Together, these chapters interweave to form a comprehensive exploration of the
influence that eNVC may have in relation to deeper learning in discussion-based online
courses.

CHAPTER 2

ENVC & DEEPER LEARNING

SETTING UP THE LOOM

Setting up the loom with care,
Threads of knowledge woven fair.
Interaction holds the key,
To engagement's mystery.

Chapter 2: Setting up the Loom

(Review of Relevant Literature)

In the second chapter of my dissertation, I delve into a comprehensive review of the literature that pertains to the main pillars of my study: communication, interaction, engagement, and deeper learning. The title of this chapter, *Setting up the Loom*, is inspired by my personal experience of assembling the loom frame and threading the warp long before embarking on the data gathering journey. This preparatory task, although strenuous and somewhat less creative compared to the act of weaving itself, was indispensable in laying a firm foundation for my dissertation tapestry. The process mirrors the meticulous nature of the literature review, demanding a keen eye and precise execution. As exhaustive as this stage was, it was an imperative step in ensuring the correct tension in each thread, forming the backbone of a successful weaving endeavor. Just as a properly prepared loom aids in the creation of structurally sound and aesthetically pleasing tapestry, this review equipped me with the theoretical knowledge needed to interpret the narratives I heard, saw, experienced, and felt during my research journey. It also expanded my understanding of the constructs explored in this study, paving the way for me to draw novel connections between these theoretical concepts and my tactile experiences of weaving.

As discussed in Chapter 1, this study aims to address the gap in the literature concerning eNVC and deeper learning. However, literature on these specific topics, especially in relation to asynchronous discussion-based online courses, is scarce. This scarcity necessitates an expanded review scope to include foundational publications from the field of communication studies. The purpose of this chapter is to present a reflective and critical review of the literature pertaining to the themes of this study, organized into four major sections.

The first section covers the broad concept of communication, including nonverbal communication and eNVC. The second section builds on the first to discuss interaction, seen as a complex form of communication involving mutuality and reciprocity, and by its nature, encompasses the nonverbal aspect of communication, implicitly referred to when discussing interpersonal interactions. The third section examines engagement as a three-dimensional meta-construct with cognitive, behavioral, and emotional facets. Lastly, the fourth section focuses on the definition and competencies of deeper learning, and how these competencies align with interaction and engagement. This chapter concludes with a conceptual framework demonstrating how the major themes of this study interrelate within the discussion-based online learning environment.

Literature Search Strategy

To further my research, I utilized the library databases at Athabasca University and the University of Toronto to search for contemporary and foundational publications related to the main concepts of this study. Inputting the terms "interaction," "engagement," "online learning," "e-learning," and "distance education" into the keyword field, both separately and combined, yielded thousands of results. However, each time I added the expressions "nonverbal" or "non-verbal" and "asynchronous" to any combination of the other terms, the number of resulting publications was significantly less. This stark contrast further highlighted the gap in literature explicitly investigating the potential impact of eNVC on interaction and engagement in asynchronous discussions. Figure 2 provides a mind map of this preliminary literature review.

While scanning the literature for the concept of communication was a broad and interdisciplinary task, searching for the keywords "interaction" and "engagement" focused

more on online learning in higher education. The review of literature related to deeper learning

included articles on deep learning as well as reports on recommendations for curriculum

reforms in secondary schools. However, I excluded publications that referenced "deep

learning" in the context of machine learning and AI, since my study is centered on pedagogical

deeper learning rather than computational algorithms. Additionally, expanding the search to

include literature on instructional tools used for emergency remote teaching highlighted a

recent decline in the use of asynchronous discussions.

Figure 2

Mind map of the literature review sections and major themes
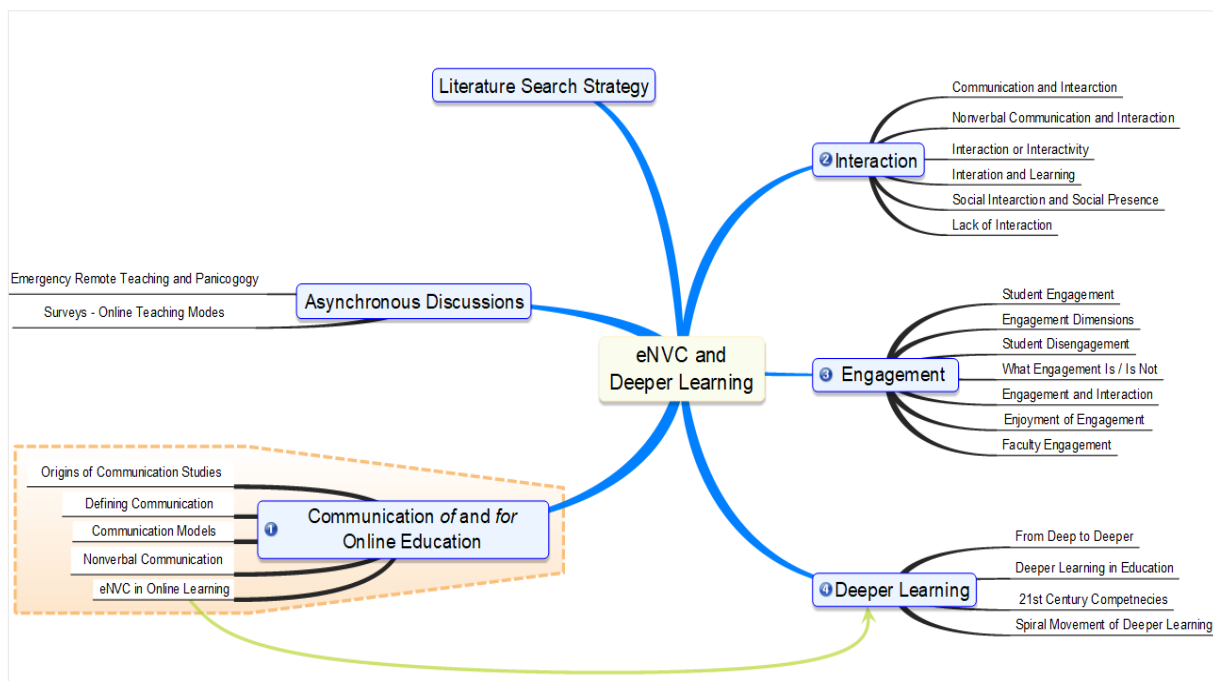
Asynchronous Discussions and Remote Teaching

Since their emergence in higher education in the 1990's, asynchronous discussions have

gained respectability for being aligned with the social constructivist paradigm, which was

growing in popularity around the same time (Laurillard, 2012). In the pre-COVID-19 era,

asynchronous discussions were considered the primary instructional strategy for online courses

(Andresen, 2009; Putman et al., 2012). However, the pandemic changed the landscape of distance education, especially after the shift to emergency remote teaching (Hodges et al., 2020).

Although studies on emergency remote teaching strategies and outcomes are still emerging, explorations of web publications and journal articles to date suggest that emergency online educators are favoring synchronous video conferencing over asynchronous discussion forums (Fox et al., 2020; Guppy et al., 2022). The remarkable increase in using Zoom, Google Classroom, and Microsoft Teams immediately after school and university closures in North America in mid-March, 2020 can be considered an indication of their adoption for emergency remote teaching (Koeze & Popper, 2020) (Figure 3).

Figure 3

Popularity of video-enabled applications after school closures in March 2020
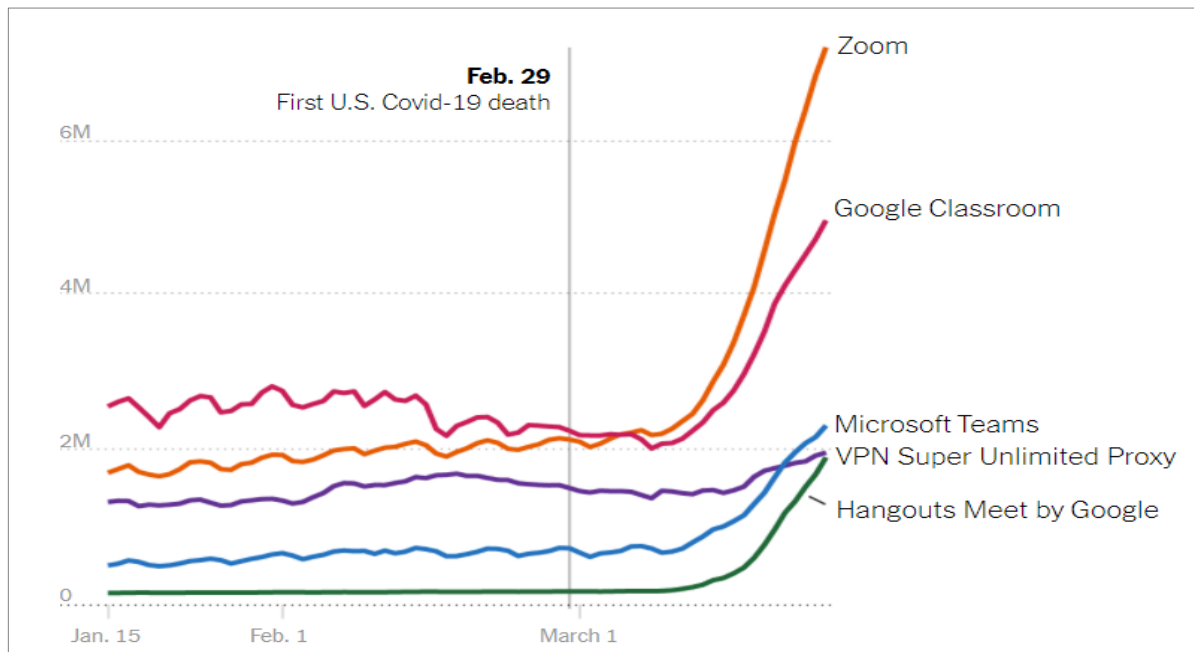
Note. This figure is taken from iOS App Store rankings (Koeze & Popper, 2020)

Commenting on this pivot to remote teaching, Johnson et al. (2021) describe the year 2020 as "likely one of the most challenging ever for the higher education sector" (p. 4). One of

the major challenges that faculty faced in 2020 was the need to adapt their courses for remote

teaching with little to no experience in online education. The findings of Johnson and

colleagues' report show that 97% of educational institutions had to call on faculty without

online teaching experience. Additionally, 56% of the faculty converted their courses to remote

teaching using methods they had never used before (Figure 4).

Figure 4

Faculty Experience during the Move to Remote Teaching (Johnson et al., 2021)
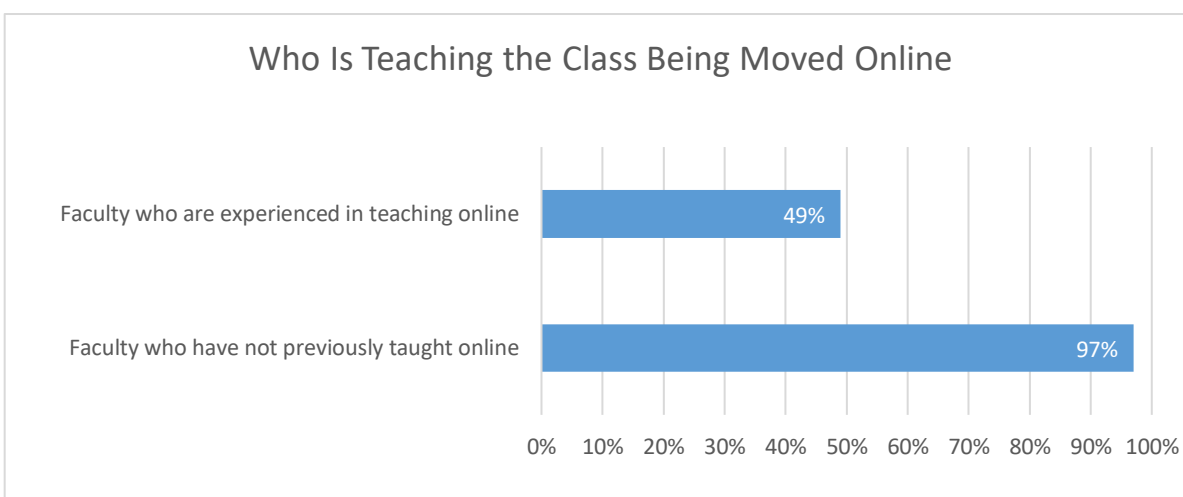
About the methods and digital technology, Johnson and colleagues (2021) indicate that

94% of the faculty rely on emails to communicate with students outside of the class virtual

sessions, followed by 74% using one-on-one video conferences (Figure 5). These findings,

along with the statistics about the use of small group and conference tools embedded in the

learning management system (LMS) provide additional evidence for reliance on video

technologies during the pandemic. The researchers also note that "faculty anticipate continued

use of video-based technologies post-pandemic" (Johnson et al., 2021, p. 35). Remarkably,

discussion boards are almost absent from Johnson et al.'s report, except for a single mention in

a comment from a faculty member.

Figure 5

Technology Used to Communicate with Students (Johnson et al., 2021)
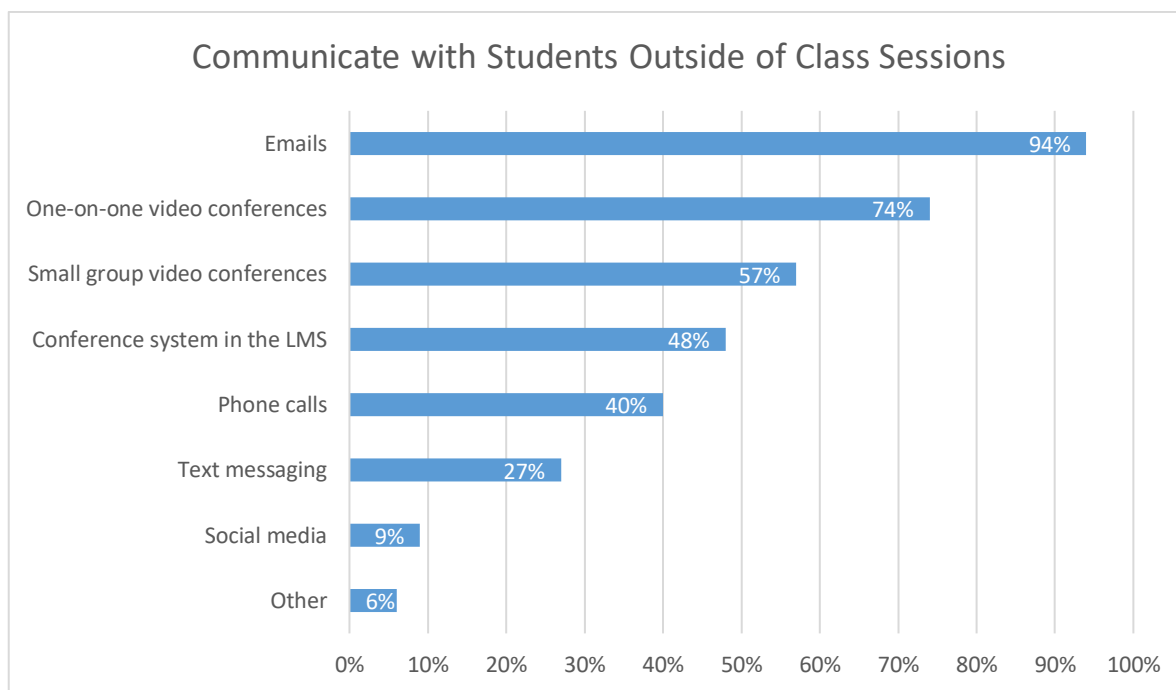
Along the same line, another survey investigating college students' perceptions of online learning during the pandemic shows that the top modes for online courses are live sessions,[2] recorded lectures, and synchronous online lectures (Means et al., 2020). This focus on synchronous methods might be rooted in the traditional approaches to teaching that have prevailed for centuries. Historically, the structure of formal education has been influenced by the one-to-many format where knowledge was disseminated from a singular authority, such as when priests preached from the pulpit after books were introduced.

In this regard, Bates (2019) explains that in the 13th century, with books as rare commodities, professors read from the sole copies of texts to students, who penned their own notes. Remarkably, despite technological advances, this traditional instructional strategy

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[2] Described by the authors as synchronous sessions where students can ask questions and discuss course content

persists in many educational institutions. Although the longevity of this method suggests its efficacy, one must ponder whether this instructional approach remains the most suitable teaching in today's digital age, where a vast universe of information is just a click away.

The dawn of the internet, the World Wide Web, and subsequent digital technologies have transformed teaching and learning spaces, providing opportunities beyond this traditional paradigm. These technologies not only enrich in-person classes with videos, animations, virtual reality, and augmented reality, but also enable diverse platforms for purely online learning environments (Fitria, 2023; Nkomo et al., 2021; Singh & Thurman, 2019). Some examples include educational software, digital classrooms, mobile learning technologies, and cloud collaboration platforms, as well as emerging AI tools (Collins & Halverson, 2018; Guppy et al., 2022). While aware of the manifold options technology presents, this study remains focused on textual communication within asynchronous online courses. Specifically, it examines interaction and engagement in discussion forums, which have not received much attention in recent surveys of online instructional approaches.

For instance, while Means et al.'s (2020) survey investigates students' perceptions of online learning during the pandemic, it does not inquire about asynchronous instructional approaches. Its equivalent from the perspective of faculty indicates that 71% of instructional strategies are synchronous, and 61% are asynchronous utilizing personal messages, recorded videos or lectures, quizzes, and real world examples (Fox et al., 2020). What caught my attention while reviewing these results and the ones in Johnson et al. (2021) was that discussion forums do not appear on the list of teaching tools. Although literature on the absence of asynchronous discussions from the instructional strategies used for emergency remote teaching is still evolving, possible reasons could be that instructors a) have limited knowledge on the

existence and use of discussion forums; b) assume that do not have enough time to prepare prompts for and monitor the discussions; or c) feel that they lack necessary skills to facilitate asynchronous discussions in ways that encourage students' participation, interaction, and engagement. Perhaps the last possibility is the most challenging as it requires developing approaches to communicating effectively in asynchronous online discussions.

Section 1: Communication *of* and *for* Online Education

As mentioned in the introduction of this dissertation, communication plays a pivotal role in any educational setting, online included. To analyze the significance of online communication, Vlachopoulos and Makri (2019) examined 103 scholarly articles published between 2001 and 2018. Their findings conclude that it is difficult, if not impossible, to find an inclusive definition for communication because scholars address it from different perspectives, particularly as a set of learned activities, a method of delivery, or a process.

Upon critical reflection on this multiplicity in perspectives, I realize that technology adds a layer of complexity by drawing attention to the medium in addition to the process. Using the acronym CMC for *computer-mediated* communication in distance education literature is indicative of the focus on the medium. However, examining the complexity of interpersonal communication through one angle – be it process or medium – gives a partial view of what it entails. Inspired by James W. Carey (2009), who notes the dual aspect of communication as "an 'of' aspect and a 'for' aspect" (p.55), I present a brief overview of the *descriptive* and *prescriptive* aspects of communication. Drawing from related literature, I also explain how these aspects transcribe to the world of distance education, including perceptions of eNVC in asynchronous discussions.

Origins of Communication Studies

The field of communication "is both quite new and very old" (R. T. Craig & Muller, 2007, p. xiv). As a concept and practice, it has co-existed with human beings, enabling communities to form and societies to develop (Bergman et al., 2020; R. T. Craig & Carlone, 1998; Mowlana, 2019). However, the discipline of communication is relatively new, dating to its institutionalization post-World War II in the United States. Communication studies rapidly evolved as a partial convergence of other disciplines that intersect in complex ways. This results in diversity in communication research and splits it into two main streams: humanities and social sciences. Craig (2012) explains that the humanities stream could be traced back to Ancient Greek arts of rhetoric and the intellectual traditions of the European nineteenth-century studies of texts, artifacts, aesthetics, hermeneutics, and linguistics. However, the social sciences stream developed from experimental psychology as well as other disciplines such as anthropology, economics, political science, and sociology. This diversity in the origins, nature, and characteristics is mirrored in the variety of definitions that scholars use to describe communication.

Defining Communication

Scholars discuss the difficulty of developing a unified definition for communication due to the diversity of its roots, its association with other disciplines, and lack of clarity around its concept (R. T. Craig, 1999; Vlachopoulos & Makri, 2019). Dance (1970) argues that this diversity of definitions can lead to academic sniping and theoretical divisiveness. Therefore, "a variety of approaches and methodologies is beneficial when dealing with a concept as complex as communication and we should beware of seeking or, worse, of finding a single, rigid, exclusive definition" (Dance, 1970, p. 120).

Abandoning the idea of seeking a unified definition for the overburdened concept of communication, scholars start using a family of concepts with sub-categories like "human speech communication", "effective communication" or even CMC as a contemporary family in the field of distance education. In light of this expansion, literature in different fields refers to communication as an act, a process, an activity, a transfer, or an exchange (Iosim et al., 2018). To simplify the complexity resulting from this expansion, some scholars devise models to explain what communication *is* and what it *does*.

Communication Models

The earliest and simplest attempt to represent the communication process was Claude Shannon's (1948) linear model. Adopting a telecommunication perspective, Shannon depicts the communication process as a one-way transfer of encoded messages from a sender to a receiver. In this model, noise can interfere with the channel and distort the messages. Several scholars expanded on Shannon's model by adding the feedback loop, the context, and the psychological factors (Berlo, 1960; Schramm, 1954).

As communication models evolve, so do conceptualizations of their components. A notable development in this regard is Barnlund's (1970) transactional model, which renames the sender and receiver as *communicators* simultaneously sending and receiving messages. During this cyclical process, meanings can be *drawn from* or *assigned to* verbal and nonverbal cues. Social, cultural, physical, relational, and psychological contexts, combined with the communicators' field of experience, influence perceptions and interpretations of cues (Barnlund, 1970). Within the field of applied linguistics, this communication principle is comparable to the reader response theory (Iser, 1972; Rosenblatt, 1969, 1982).

Textual Communication and the Reader Response Theory

Despite the various approaches that the reader response theory encompasses, they all

share similar beliefs about readers deriving meanings from text, based on their own knowledge

and disposition (Iser, 1972). In an article on the transactional reader response theory,

Rosenblatt (1969) underscores the active role of the reader, who is "not a blank tape registering

a ready-made message" (p. 34). Therefore, meanings are constructed through transactions

between the reader and the text, in addition to the images, feelings, attitudes, and associations

that the words evoke in the reader (Rosenblatt, 1969, 1978).

While transactional responses apply to listeners and viewers in addition to readers

(Hoven, 1997), focusing on the reader response is relevant for this study due to the textual

nature of the asynchronous discussions. But as discussed in the Background section of Chapter

1, verbal cues do not exist independently from their nonverbal counterparts. Therefore,

participants in online courses construct meanings through transactions, perceptions, and

interpretations of the written text as well as the eNVC interwoven with it. Before discussing the

eNVC in the online discussions, I present a brief overview of the literature on nonverbal

communication and the main principles that transcribe to the study of eNVC.

Nonverbal Communication

To highlight the impact of nonverbal communication, Hall and Knapp (2013) note that

"Nonverbal communication has always fascinated human beings. It is omnipresent and

influential, but ineffable in many ways. Much of the time, it is hard to describe and hard to

study" (p.3). However, humans have a natural ability to share meanings through nonverbal

cues in ways that, at times, exceed the meanings shared through linguistic elements (Knapp et

al., 2014; Matsumoto et al., 2016). Theorists attribute this ability to the fact that nonverbal

communication preceded the development of languages and that, in many cases, nonverbal

cues fill in the gaps in the language during in-person interactions (Frank & Shaw, 2016).

Table 1

Development of nonverbal communication theories

Period	Development	Theorists / Theories
Classical Period	Foundations of Western thought are established in ancient Greece and Rome.	Greeks and Romans such as Theophrastus, Cicero, and Quintilian study gestures as a persuasive accompaniment to rhetorical discourses, setting the stage for contemporary studies of nonverbal communication.
1950 to 1954	Studies of nonverbal communication develop in earnest.	Ray Birdwhistell explores social interaction and becomes known for kinesics, the study of symbolic bodily movements. George Trager begins pioneering work into paralanguage and voice quality.
1955 to 1959	Interpersonal communication studies broaden significantly with the introduction of fresh new approaches.	George Trager advances paralinguistics by creating a voice classification system. Edward T. Hall proposes the study of proxemics in his landmark book *The Silent Language*.
1965 to 1969	Nonverbal communication studies continue apace.	Paul Ekman and Wallace Friesen begin research on the nonverbal communication of the face and hands. George Trager continues work on paralanguage. Albert Mehrabian introduces his concept of immediacy, which will have a great effect on the study of nonverbal communication.
1970 to 1974	Interest in nonverbal communication increases.	Canadian linguist Fernando Poyatos shows the relationship between written punctuation marks and paralinguistic characteristics. Fernando Poyatos also coins the term *chronemics* to capture the role of time in communication.
	Media theory expands.	Elisabeth Noelle-Neumann proposes a fresh approach to understanding public opinion known as the spiral of silence.
1980 to 1984	Nonverbal communication studies continue.	Adam Kendon studies gestures and speech.

Note. This table is adapted from Littlejohn & Foss (2009, pp. Iv–Ixii).

In common with the broader concept that it stems from, the study of nonverbal

communication is dispersed across disciplines, with theories spanning from the classical period

to contemporary times (see Table 1). A brief examination of these theories reveals the

expansion of the field beyond what is commonly known as body language and facial

expressions to include silence, images or visuals, textual paralinguistics, proxemics, and

chronemics. Examples of concepts presented in Table 1 that also surface in distance education

literature include silence (Duran, 2020), chronemics (Kalman & Rafaeli, 2011), and immediacy

(Dixson et al., 2017; Woods & Baker, 2004). Other theories on nonverbal communication

influencing online learning experiences relate to visuals and aesthetics (Carroll & Kop, 2016).

These cues constitute aspects of the communication process that can be exchanged and

perceived as eNVC in online discussions.

eNVC in Online Discussions

As mentioned in Chapter 1, eNVC refer to meanings assigned to cues and/or behaviors

other than the written words during textual communication via electronic channels.

Like other forms of nonverbal communication, these cues can match, repeat, complement,

contradict, supplement, or substitute for the verbal message, depending on the communication

context and relationships among communicators. In this study, the focus is on eNVC in

discussion forums in relation to interaction and engagement that promote deeper learning.

Identifying eNVC perceptions and potential influence in asynchronous discussions

requires the examination of nonverbal categories that infiltrate text-based electronic channels.

The findings of my previous study suggest that at least four nonverbal categories can be

perceived as eNVC that have the potential of influencing learning experiences in discussion-

based online courses (Al-Tawil, 2019). These categories are chronemics, absence / pauses (lack

of response, silence), eSET, and 2D visual cues (see Figure 1**).**

Chronemics. In the field of nonverbal communication, chronemics is "the study of the

concepts and processes of human temporality, or connections with time, as they are bound to

46

human communication interactions" (Littlejohn & Foss, 2009, p. 96). Therefore, this eNVC

category is associated with the perception and use of time in asynchronous discussions.

Specifically, it pertains to the time participants take to reflect on the online course material as

well as their own and others' postings. It also refers to meanings embedded in the timing,

frequency, and pace of postings. This includes response time or time-lag between an event and

the reaction to that event. An example of this nonverbal communicative act is the impression

that learners may have when their instructors and/peers respond *quickly* to their queries in the

discussion forum. Another example is the message value exchanged through time stamps on

postings and/or course websites; in this regard, a participant in my previous study wrote,

> It makes me very upset when an instructor does not log in to the course website for
>
> several days during the week (four to five days in a row). It happened with my
>
> previous course and I am still disturbed by that. (Al-Tawil, 2016, p. 40)

Lack of response (silence or pause in communication). The aforementioned quote is

relative to this category, too, because lack response, absence from the course discussions, or

pauses in asynchronous interactions may have impact perceptions of learning experiences. This

is apparent in the following comment that a participant in my previous study made: "If I am

ignored, I take it as a negative response. If and when this occurs, I tend to only contribute

sufficiently to get my marks" (Al-Tawil, 2019, p. 151). In addition to impact, silence in the

form of "not replying" or "ignoring" some postings emerged as a common cue to show

discontent in my previous study, and reinforced in this current research as shown in the Pause,

Absence, and Lack of Response section of Chapter 7.

ESET. It stands for *electronic style, effort*, and *tone,* and it represents an amalgamation

of properties accompanying the written text beyond the actual meaning of words. Significantly,

eSET resembles the vocalic attributes of speech. It includes the writing style, tone, choice of words/expressions, structure, layout, and formatting in addition to the effort a person makes to express thoughts and/or feelings.

Figure 6

Exploring eSET - Two Layouts of the Same Posting (Al-Tawil, 2019)

To explore the eSET category, I asked participants in my previous research to look at two layouts of the same posting **(Figure 6).** A remarkable finding was that 0% of the

respondents chose Layout A as the one they would likely respond to. Comments explaining this choice included descriptions of the personal characteristics. For instance, respondents described the writer of Layout A as someone who did not have time or did not put enough effort, whereas the writer of Layout B was perceived as friendly, warm, inviting, open, inclusive, pleasant, fun, and thoughtful (Al-Tawil, 2019).

Some publications acknowledge the significance of elements of eNVC. For instance, comparing in-person to asynchronous interactions, Burgoon and Walther (2013) note that "the presence of chronemics in CMC is becoming recognized as the last code to survive the reduction of nonverbal cues in the shift from FtF to CMC formats"[3] (p. 747). The authors also indicate that reductions in cue systems due to CMC require that communicators make greater efforts to achieve outcomes comparable to face-to-face interactions. Additionally, they remark that "CMC users attempt to make up for facial expressions through the typographic constructions resembling facial expressions of emotion, or 'emoticons' in CMC" (p. 748).

These examples provide viable explanations for ways participants in discussion-based courses use eNVC to compensate for the reduction of nonverbal cues and behaviors naturally present during in-person interactions. However, they tend to focus on one nonverbal aspect at a time, which is unlikely to occur during interpersonal interactions where nonverbal cues are conveyed and perceived in clusters. In Section 2, I discuss the concept of interaction and how it relates to communication as well as social presence in distance education.

Section 2: Interaction

Although the literature is abundant with studies about interaction within the online learning environment, the term interaction continues to present considerable challenges due to

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[3] In this quote, the authors use the acronym FtF for face-to-face communication.

the ambiguity surrounding its interpretation (Johnston & Lane, 2020; Wagner, 1994).

Therefore, Moore's (1989) remark about interaction being an important term that becomes

almost useless unless defined with sub-meanings still rings true, particularly in discussions

involving communication. One of the reasons is that communication and interaction are

sometimes used interchangeably with little distinction between the two concepts (Licorish &

MacDonell, 2015; Newell & Jordan, 2015). Another reason is that some scholars describe

interaction as wider in scope than communication, considering the latter to be a specific form

of interaction that involves the exchange of information (Orange, 2019; Spencer-Oatey &

Franklin, 2009).

According to this explanation, interaction describes influential actions between two or

more entities, whereas communication is limited to information-transmission. I argue that

although this description may be applicable in certain situations, it overlooks the nature of

information, which can be perceived and interpreted in ways that do not always match the

original message intent. Therefore, information-transmission does not guarantee the reception

of the message, and information-sharing is different than meaning-sharing since it is possible

for people to exchange information that results in misunderstandings. Categorizing

communication as a form of interaction limited to the transmission of information is

incompatible with this study that aims to explore the role of nonverbal cues and/or behaviors in

online courses.

Communication and Interaction

Based on the explanations and models presented in Section 1, I distinguish between the

two concepts by defining interpersonal communication as the exchange of verbal and

nonverbal messages (including actions), which others perceive and interpret in ways that

influence their thoughts, attitudes, emotions, and/or behaviors according to contexts. On the other hand, human interactions are multifaceted, reciprocal, and mutual forms of communication that take place within a certain environment. Wagner (1994) explains this concept by describing interactions as "reciprocal events that require at least two objects and two actions" (p. 8). So, communication could be unidirectional depending on whether the meaning is *conveyed through* or *attributed to* messages and cues, especially asynchronously using electronic channels. However, interpersonal interaction is a mutually reciprocal process (Castano-Munoz et al., 2013), where communicators not only engage in meaning-sharing, but also build upon meanings simultaneously conveyed and interpreted in ways that result in mutual influence.

Nonverbal Communication as an Inherent Feature of Interaction

Despite the ambiguity surrounding their meanings, interpersonal interactions constitute major criteria for evaluating the quality of learning environments (Mehall, 2020). Before online education became a necessity with COVID-19, both educators and learners used derivatives of the word "interact" to clarify their preference for in-person education due to its interactive nature in relation to body language and facial expressions. A closer look into the meaning of the term interaction reveals that it inherently carries the connotation of nonverbal communication due to its focus on influential actions. The literature on nonverbal communication clearly emphasizes this notion. An example of such emphasis is this explicit remark that Hall and Knapp (2013) write in the welcoming chapter of the Nonverbal Communication book: "Sensible interpersonal interaction would simply not be possible if people did not share implicit understandings of what nonverbal cues are used for and what they mean" (p. 6).

Exploring social interactions within the learning environment, early theorists in the field highlight their nonverbal aspect, and associate interactions with the relational component of the communication process. For instance, Simpson and Galbo (1986) identify the essential characteristic of interaction as being "reciprocity in actions and responses in an infinite variety of relationships: verbal and nonverbal, conscious and unconscious, enduring and casual. Interaction is seen as a continually emerging process, as communication in its most inclusive sense" (p. 38). Wagner (1994) supports this view and notes the confusion between interactive communication and interactivity of "contemporary instructional delivery systems" (p. 7).

Interaction or Interactivity

Technological tools introduce the dimension of interacting with and within the learning channel or medium, adding a level of complexity to the construct of interaction in online courses (Hoven, 2006). Wagner (1989) suggests differentiating between *interaction* and *interactivity* by describing the first as an attribute of effective instruction and the second as an attribute of the instructional systems. Kiousis (2002) clarifies that interactivity is associated with new communication technologies, defining it as "the degree to which a communication technology can create a mediated environment in which participants can communicate (one-to-one, one-to-many, and many-to-many), both synchronously and asynchronously, and participate in reciprocal message exchange (third-order dependency)" (p. 372). In addition to connecting interactivity with the medium structure and the communication context, Kiousis highlights the user's "ability to *perceive* the experience as a simulation of the interpersonal communication and increase their awareness of telepresence" (p. 372). More recent definitions of interactivity describe it as a set of system affordances that enable users to modify the form and content of a mediated environment (Li & Li, 2014; Sundar et al., 2014). What I find

remarkable in these definitions is that they focus on the role of participants as active users capable of altering, to some extent, the experiences they and others have while interacting with and within the communication technologies. Examples include interactivity features of websites, particularly social media platforms, which allow users to make choices based on preferences and purposes.

In common with social media platforms, an LMS hosting online courses is designed with multiple interactive functions that influence interactions as well as perceptions of these interactions within the online course. The educational setting, learning space and place impact the communication process, as the technologies available can influence communication options and learner motivation to interact (Haleem et al., 2022). With regards to digital learning spaces, studies on LMS interactivity suggest that it can influence interactions, satisfaction, engagement, and behavioral intentions (Oluwajana et al., 2019; Park, 2015). For instance, if the LMS allows for emojis or annotations to be added to posts in a discussion forum, this technological interactivity enables nonverbal meanings that shape perceptions of the learning experience. This highlights an area of interest for future research on how platform affordances and tools influence communication in the online learning environment. However, the scope here remains on specific aspects of eNVC that influence interaction in asynchronous online discussions, as interaction constitutes a pivotal process for meaningful learning, one not limited solely to human-to-human connections, as described next.

Interaction and Learning

Following the transition of distance education to the World Wide Web, theorists identify three primary forms of interactions that contribute to meaningful and deep learning. They are: learner-learner, learner-content, and learner-instructor (T. Anderson, 2003; T.

Anderson & Garrison, 1998; Moore, 1989). Kanuka (2011) posits that although these three forms of interactions are interrelated in such a way that learner-learner and learner-instructor interactions happen within the context of the content. As I discuss below, limiting interactions to the context of the content deviates from the relational aspect of the communication process, which aims to foster social bonds among participants while meeting learning outcomes. Regarding the types of interactions, scholars also suggest adding the interface (Hillman et al., 1994), the learning theory or pedagogy (Sims, 2000), and the design or designer (Nieuwoudt, 2018) while considering learning-content interactions as a critical aspect of learners' intellectual growth.

In this respect, Mehall (2020) focuses on the importance of quality versus quantity of interpersonal interactions in online courses. Building on the notion of purposeful interaction that Abrami et al. (2011) describe as *guided* and *focused*, Mehall (2020) defines purposeful interpersonal interactions as "high quality, organic, and valid communication exchange between two or more participants of the learning process that directly relates to the achievement of established learning outcomes or to the building of social relationships" (p. 185). Therefore, online interactions advance the learning process when they are designed in a way that allows participants to interact with the content and other participants "in a manner that is not fake or forced but meaningful and purposeful" (Mehall, 2020, p. 185). However, not all purposeful interactions directly relate to the course content. Examples include interactions that aim to foster social bonds amongst participants in the learning community. These include learner-learner as well as learner-instructor interactions, which are often discussed in terms of presence in distance education literature. In the next segment, I discuss social interactions and social presence in relation to eNVC in asynchronous discussions.

Social Interaction and Social Presence

In general, social interactions refer to the process of reciprocal influence that individuals exercise over one another during social encounters (Little, 2016). Within the educational setting, such social encounters usually take place organically on-campus. Mehall (2020) reiterates Hirumi's (2002) notion regarding the importance of nonverbal cues throughout in-person educational interactions. These cues are particularly significant for instructors who notice, interpret, and respond to the students' verbal and nonverbal messages allowing them to engage in spontaneous, real-time interactions. Since the opportunity to interact with other members of the learning community spontaneously and in real-time is absent from online asynchronous courses, social interactions need to be deliberately designed within the course structure (Mehall, 2020; Woo & Reeves, 2007). Many scholars associate these interactions with the socio-emotional aspect of the online learning experience that they refer to as social presence (Weidlich & Bastiaens, 2017). Several studies establish social presence as critical – if not the most critical – component for the effectiveness of distance education (Nasir, 2020; Oyarzun et al., 2018).

Nonverbal Features of Social Presence. A closer look into the background of social presence reveals that, since its inception, it has been rooted in concepts related to nonverbal communication. Literature is abundant with studies on social presence that credit Short et al. (1976) for coining the term based on two concepts emanating from nonverbal communication research. These concepts are:

1. Intimacy: Argyle and Dean (1965) discuss eye contact, physical proximity, and smiling as aspects of intimacy governed by the approach/avoidance equilibrium.

2. Immediacy: Wiener and Mehrabian (1968) define immediacy as the psychological

    distance between a communicator and the object of their communication. In another

    publication, Mehrabian (1968) explicitly links immediacy to proxemics, defining it "as

    the extent to which communication behaviors enhance closeness to and nonverbal

    interaction with another" (p. 203). In addition to proxemics, immediacy is also

    associated with chronemics due to its temporal aspect, which impacts mutuality and

    involvement among co-interactants in synchronous, text-based communication

    (Burgoon, Chen, et al., 2010).

    Before discussing how these concepts translate into the online learning environment, it

is worth noting that Mehrabian's (1968, 1972) widely-studied concept of immediacy

influenced subsequent research on instructor-learner interaction, personal relationships, and

supportive behavior (Knapp, 2013). Additionally, although immediacy encompasses both

verbal and nonverbal components, Short et al. (1976) introduce a foundational definition of

social presence with a specific focus on the nonverbal dimension . While this conceptualization

of social presence predates computers, for Short et al., social presence refers to the degree of

salience between communicators using a communication medium. These authors then

emphasize social presence as a characteristic of the technological medium itself, rather than of

the users. However, they also acknowledge that social presence could influence perceptions of

interpersonal relationships facilitated through the medium.

    This duality between media-driven and user-driven perspectives triggered by Short et

al.'s explanation persists (Kreijns et al., 2022; Whiteside et al., 2017). It continues to create

ambiguities around what social presence *is* and what it *does* in digital communication spaces,

including asynchronous online courses (Öztok & Kehrwald, 2017).

Social Presence and Interactions in Online Learning. The aforementioned explanations raise questions about the nature of social presence, and how it relates to or differs from social interactions in online courses.

The first portion of this query is challenging to address due to the diverse conceptions regarding social presence in the literature. Although most scholars attribute their understanding of social presence to Short et al.'s (1976) foundational explanation mentioned earlier, they redefine it differently depending on their research focus. This started in the late 1980's and early 1990's, when communication researchers began to wonder whether social presence is an attribute of the medium or the result of user's perceptions (Lowenthal & Snelson, 2017). They examined its role in relation to CMC, which was considered to be void of social-context cues, including nonverbal communication (Walther, 1992) (a notion that I argue to be erroneous throughout this dissertation). When distance education researchers gained experience in using web-based technologies for educational purposes, they concluded that people could establish social presence despite the low social bandwidth of the medium (Gunawardena, 1995; Lowenthal & Snelson, 2017). Social presence has since become an important factor of effective online learning, with studies linking it to learners' satisfaction (Gunawardena & Zittle, 1997), retention (Liu et al, 2009), and social interactions (Mulder, 2023; Tu & McIsaac, 2002). In Addition, social presence plays a prominent role in the Community of Inquiry (CoI) framework, especially because it functions "as a support for cognitive presence, indirectly facilitating the process of critical thinking" (Garrison et al., 2000, p. 89).

As social presence gains recognition for being essential for successful online education, its boundaries with social interactions become blurry. While some studies use both concepts interchangeably, sometimes claiming the necessity of researching them concurrently (Kyei-

Blankson et al., 2016), others consider social presence to be either a precursor for (Garrison & Cleveland-Innes, 2005) or a result of (Kehrwald, 2008; Tu & McIsaac, 2002) interactions. In this regard, Weidlich and Bastiaens (2017) explain that

> social presence is primarily concerned with student-student interaction, according to Moore's (1989) classic distinction of types of interaction in online and distance learning. This type of interaction should be called social interaction to encapsulate all possible types of interaction between students, not only interactions regarding the content or learning task, but also informal, personable types of social interaction. (p. 481)

Additionally, Öztok and Kehrwald (2017) argue that it is "theoretically inadequate and practically unproductive to stretch the meaning of social presence to explain a phenomenon that has already been explored in other fields" (p. 263). Based on their interpretation of Short et al.'s (1976) original definition, Öztok and Kehrwald redefine social presence as:

> the subjective feeling of being with other salient social actors in a technologically mediated space. It is the sense of 'being there, together' when 'being there' does not involve a physical presence. This definition is predicated on the sense that there is another (or others) in the technology-mediated space and that the others are potentially viable partners for social interaction. (p. 263)

Notions drawn from the last two quotes by Weidlich and Bastiaens (2017) and Öztok and Kehrwald (2017) establish the underlying assumptions that guide distinctions between social interactions and social presence in this study. These assumptions are:

1. Despite their similarities, social presence and social interactions are two distinct constructs.

2. Social presence is the perceptual illusion of non-mediation in technologically mediated social encounters. In other words, it is engaging in a computer-mediated activity with other people as if they were physically present in the same place.

3. Social presence is a *state* and a *sense* of being there with others (whereas interaction is an *action/reaction* involving activities or behaviors happening during the communication process). It is through social interactions that participants develop relationships of trust as they engage in mutually influential dialogues. This contributes to the development of a comfortable environment "where the personal meets the social with the specific purpose of learning" (Kop, 2011, p. 24).

4. Concepts usually associated with social presence, but they stem from the literature of nonverbal communication, are discussed in relation to their fields of study.

To elaborate on the last point, I add that this study links concepts such as responsiveness and promptness to chronemics, and it associates notions of distance and closeness with immediacy and proxemics. Moreover, silence in the communication process will be discussed in relation to behaviors affecting interaction, or its lack thereof, in the discussion-based courses.

Lack of Interaction

In the same manner that interaction has been associated with satisfactory learning experiences, lack of interaction has been associated with the ineffectiveness of online learning, particularly when compared with in-person educational settings (Araka et al., 2021). Recent studies conducted during the pandemic-driven pivot to emergency remote teaching frequently mention lack of interaction as a major issue in virtual learning settings (Adnan, 2020; Derakhshandeh & Esmaeili, 2020; Nambiar, 2020; Wut & Xu, 2021). This notion is not new to distance education research; for instance, in a 2005 exploratory factor analysis study,

Muilenburg and Berge conclude that lack of interaction is one of the most significant barriers perceived by students in online learning. Remarkably, although web-conferencing tools used for emergency teaching allow for real-time, face-to-face interactions to take place virtually, participants continue to mention lack of interaction as a major challenge for online learning. In light of Johnson et al.'s (2021) report about the use of new technology for remote teaching, it is possible that instructors learning these tools are not using them to full potential. Instead, they are bypassing the interactive features of this new technology, perpetuating traditional modes of instruction in physical teaching spaces with minimal interaction. While the potential impact of technological affordances on practices and perceptions of interactions in virtual education settings is outside the scope of this project, it constitutes an interesting area for future research. What concerns this study, however, is the communicative aspect of behaviors perceived as lack of interaction.

According to the first communication axiom (Watzlawick et al., 1967), a basic but often overlooked property of behavior is that it "has no opposite. In other words, there is no such thing as non behavior" (p. 48). Accordingly, all behavior, including lack of interaction, is communicative because it carries a message value. Watzlawick et al. (1967) highlight this principle by clarifying that,

> Activity or inactivity, words or silence all have message value: they influence others and these others, in turn, cannot *not* respond to these communications and are thus themselves communicating. It should be clearly understood that the mere absence of talking or of taking notice of each other is no exception to what has just been asserted. (p. 49)

In line with this communication principles, *absence from* and/or *pauses in* the online course interactions constitute an area of interest in this research. Therefore, this study probed into the

participants' perceptions and interpretations of silence or absence of interaction in

asynchronous discussions, particularly in relation to engagement and deeper learning. The

findings of this study demonstrate that brief periods of absence from interactions in course

discussions can have certain benefits. However, it is important to note that extended absences

from participation tend to be perceived negatively, especially when accompanied by a lack of

response to others' questions or posts (refer to Uncomfortable Silence and No Response

sections in Chapter 7).

Section 3: Engagement

Like communication, engagement is a complex, multidimensional, dynamic, and

relational meta-construct. In its essence, engagement features psychological and behavioral

attributes of connection, interaction, enjoyment, and involvement that aim to achieve outcomes

at individual, social, or organizational levels (Fredricks et al., 2004; Johnston & Lane, 2020;

Johnston & Taylor, 2018). This rather broad description brings to mind Coates' (2006) remark

about the term engagement having many semantic connotations, clarifying that:

> Depending on context, it can describe processes with different temporal, existential,
>
> directional and moral characteristics. Engagement can refer to something that happens in
>
> the past, present or future, and to something of either limited or ongoing duration. It can
>
> refer to objects or subjects, be they groups or individuals, although logically it requires at
>
> least two entities. (p.16)

This clarification is relevant to this study aiming to investigate whether eNVC influence

behaviors, characteristics, attitudes, and feelings perceived as engagement in online courses.

Since the research participants are both learners and instructors, the data gathered and analyzed

included narratives about the engagement of both groups in the discussion forums – although the literature mainly focuses on students' engagement in online courses.

Student Engagement

The literature is rich with studies about learner engagement on-campus and online (Bowen, 2019; Kevin Chan et al., 2016; Purarjomandlangrudi & Chen, 2020; Schreiber & Yu, 2016). Due to its multidimensional nature, engagement constitutes a single construct that draws together multifaceted aspects of students' academic and non-academic experiences (Coates, 2006; M. K. Kim et al., 2020). Researchers link engagement to the effort students devote to achieve their learning goals; it involves elements related to the skills, emotions, participation and interaction (with content, peers, and instructors), and performance (achievement of desired goals) (Handelsman et al., 2005). Fredricks, et al., (2004) point out that concepts included in engagement overlap with other constructs studied in the literature. Some relate to emotional reactions towards learning as well as elements inside or outside the educational context (Redmond et al., 2018). Others intersect with studies on self-regulated learning and motivation, particularly its intrinsic aspect (Shernoff, 2013). Examining each concept separately under the label of engagement can result in a proliferation of constructs (Fredricks et al., 2004). This is why scholars argue that the term engagement should be reserved for studies that encompass its multiple dimensions, which I describe below.

Engagement Dimensions

As a widely used term in educational research, engagement has accumulated a range of meanings and interpretations influencing the way researchers conceptualize and measure it (Redmond et al., 2018). Focusing on specific aspects of student engagement, such as participation or time on task, while ignoring other aspects fails to address the complexity of

this meta-construct. This is why Fredricks et al.'s (2004) "characterization of engagement as having three components – behavioral, cognitive, and emotional – has gained widespread acceptance as an organizing principle in the engagement literature" (Shernoff, 2013, p. 50).

In several publications, Fredricks and colleagues (2004; 2012; 2019) clarify what each engagement dimension entails. Accordingly, the authors describe behavioral engagement as encompassing school-related conduct, involvement in learning, attendance, and participation in school-related activities (including social and extracurricular). Emotional/Affective engagement includes students' positive and negative reactions to school, and relationships with teachers and peers. Emotional engagement also involves the sense of belonging or connectedness. Cognitive engagement consists of self-regulated learning, perceived relevance of schoolwork, use of deep learning strategies, and exerting the necessary cognitive strategies.

The three engagement dimensions are interrelated in such a way that affect and cognition vis-à-vis school and/or learning activities contribute to behavioral engagement. Research findings suggest that student engagement is malleable and sensitive to contextual features of student experience. These features include the learning environment as well as faculty instruction, support, and behavior management (Fredricks et al., 2016; Fredricks et al., 2019).

Student Disengagement

Similarly to engagement, student disengagement is conceptualized as having behavioral (or non-behavioral), emotional, and cognitive dimensions (Wang et al., 2016, 2017). Research findings focus on the behavioral aspect of disengagement, connecting it with student misconduct, poor academic performance, and learning discontinuity (Coates, 2006; Cocea & Weibelzahl, 2011; Gobert et al., 2015). Some scholars consider disengagement to be the

absence of engagement; thus, addressing factors causing disengagement will automatically result in student engagement (Gobert et al., 2015; Hershkovitz et al., 2012).

Although this conceptualization is useful for measuring desired behavior, Shernoff (2013) views it as problematic because students can go through the motions of school-related activities without being authentically involved. Fredricks et al. (2019) explain that this approach fails to take into account the range of ways students experience and express disengagement. Recent studies also consider engagement and disengagement as two parallel but distinctly separate, multifaceted constructs that make unique contributions to the student outcomes (Fredricks et al., 2019; Gobert et al., 2015; Wang et al., 2017). Some studies also point out the scarcity of research on student disengagement, particularly in relation to the emotional and cognitive dimensions in online learning environments (Bedenlier et al., 2020).

What Engagement Is; What Engagement Is Not

Student engagement in any educational setting, including online courses, is an integration of the three aforementioned dimensions, including unobservable thoughts, feelings, and cognitive processes. Inspired by various scholars, Ashbaugh (2013) provides a list of definitions for engagement, summarized as follows (p. 34):

- Amount of physical and psychological energy devoted to the academic experience
- Degree to which students value their learning
- Academic challenge, student–faculty interaction, and active and collaborative learning
- Collaborative learning process in which the instructor and learner partner in developing the knowledge base

Ashbaugh also remarks that to better understand what engagement is, it is helpful to explain what it is not. Within the context of online learning, engagement is *not* (p.34):

- Capturing students' attention with initial aesthetic responses

- Internet surfing with little time spent on course subject tasks

- Surface knowledge or casual use of social sites with little or no meaningful interaction

- Rule-following with no opportunity for critical thinking

- Non-interactive mode that tends to focus on creating an online lecture.

Descriptions of what engagement is *not* invites discussions around student disengagement from online courses, which, along with quality online instruction, constitute topics of interest in foundational and contemporary distance education research.

Engagement and Interaction in Discussion Forums

Chapter 1 provides an overview of how discussion forums constitute the main space for students in online courses to engage with their peers and instructors. This engagement takes place through meaningful and purposeful interactions, often considered to be at the core of engagement (Mehall, 2020). To illustrate this connection between engagement and interaction, Barnett (2003) writes:

> Engagement is a coming together, a merging, a fusing. Engagement points to mutual listening, to reciprocity, and dialogue but conducted in a willingness to change. It is the antithesis of separateness, of distance, of incomprehension. Engagement implies not just a coming together but an interaction. (p. 253)

Notably, Barnett's description of engagement also appears in recent literature. For example, Bolliger and Martin (2018) use the terms interaction and engagement interchangeably when discussing perceptions of online student engagement strategies. Although their research survey is based on Moore's (1989) three forms of interaction, they analyze the data and discuss the findings using the expressions learner-learner, learner-instructor, and learner-content

engagement. This seems acceptable in view of Barnett's (2003) remark about engagement being the *antithesis of separateness*, especially due to the link in Moore's theory between interaction and transactional distance. In this regard, Moore (1973, 1993) describes distance as psychological and communicative rather than geographical and temporal; therefore, engaging in dialogues or interactions in the online learning environment bridge this distance.

However, limiting engagement to its interpersonal aspect overlooks the importance of the emotional and cognitive dimensions that interaction in discussion forums can impact negatively. Castano-Munoz and colleagues (2013) conclude that in "the online mode, ceteris paribus, the productivity associated with interaction intensity follows a diminishing trend" (p. 253). Conversely, interaction within an in-person course does not have diminishing returns on academic outputs, which include satisfaction and academic achievement. Other studies report results validating the point of diminishing returns caused by increased interaction in online courses (Bernard et al., 2009; Mehall, 2020). Thus, interaction constitutes an essential factor that can influence engagement – or disengagement – depending on the quality, quantity, and length of posts in the online discussions. As mentioned in the segment on nonverbal communication, the length of posts is an eNVC category that this research explored in relation to both interaction and engagement, including its affective/emotional dimension.

The Enjoyment of Engagement

In the first chapter of the *Handbook of Student Engagement Intervention,* Fredricks et al. (2019) state that part of the appeal of engagement is "that it unifies different literatures and can provide a richer picture of how students think, act and feel" (p. 2). The authors provide evidence on how students low on emotional engagement feel bored or stressed out, and report that they do not actually retain what they learn even if they are high on cognitive and

66

behavioral engagement. Fredricks and colleagues add that early warning signs of disengagement "tend to rely on indicators of behavioral engagement and are less likely to include students' cognitive and affective engagement" (p. 2).

This observation is not different from Shernoff's (2013) remark about highly engaged learners being "just as identifiable as disengaged ones in terms of associated behavioral patterns, and yet their most distinguishing qualities are *internal*, both emotional and cognitive in nature. Such students are interested, involved, curious, and, most especially, imaginative" (p. 49). This is why discussions on engagement should address positive emotions such as *enjoyment*, "and cognitions (e.g., concentration) as well as qualities that entail elements of both (e.g., interest, imagination)" (Shernoff, 2013, p. 49). Eventually, higher engagement can be characterized as an interactive cycle, emotional and cognitive in nature with behavioral manifestations, evolving towards stronger involvement in the learning activities. While this explanation mainly describes student engagement, this study was open to investigate whether the same principles apply to faculty engagement in discussion-based online courses.

Faculty Engagement

Research on faculty engagement in on-campus and online educational settings is scarce, and it usually relates to learner satisfaction, quality of instruction, or persistence in the teaching profession (Abdous & Yen, 2010; Betts, 2014). Few are the studies that examine the engagement of instructors as participants in online courses, engaging in the discussion forums alongside their students. Instead, the literature mainly examines instructors' actions that students perceive as engagement. For example, Mehall (2020) discusses students' remarks about their instructors' timely and prompt feedback as evidence of instructor engagement. This perspective implies that there is a connection between the behavioral dimension of instructor

engagement and the nonverbal concepts of immediacy and intimacy. However, limiting such studies to the behavioral dimension raises questions about the cognitive and emotional facets of faculty engagement. Moreover, could faculty engagement influence learner engagement and/or the learning environment?

Scholars describe engagement as malleable and responsive to changes in the environment, which the instructor plays a prominent role in influencing (Fredricks et al., 2019; Shernoff, 2013; Wang et al., 2017). While peer-to-peer interaction and collaboration is essential in online courses, studies highlight the role of the instructor as a key factor fostering learner engagement (Bolliger & Martin, 2018; Cho & Cho, 2014; Ma et al., 2015). The instructor's role is not limited to decisions around instructional strategies and facilitation, but rather extends to establishing rapport with the learners (Murphy & Rodríguez-Manzanares, 2012). In the literature, discussions around rapport refer to the modeling/mirroring behaviors manifested through nonverbal cues (Jiang-yuan & Wei, 2012). Modeling and mirroring in discussion forums is another topic that receives little notice in the literature of online learning, yet it occupied a prominent place in the narratives of this study participants. Since engagement involves self-regulation, perseverance, and willingness to devote effort for learning the content and collaborating with others, it aligns well with deeper learning as described in Section 4 below.

Section 4: Deeper Learning

Deeper learning "is both a new and an old idea, rooted in the findings of research on learning over the past century" (Darling-Hammond & Oakes, 2019, p. 9). In the last decade, *deeper learning* has emerged as an umbrella term for desirable attributes of twenty-first-century secondary education. Despite this relative newness, the underlying theories of deeper

learning "harken back to conceptions of education propounded by Jean-Jacques Rousseau in the eighteenth century, Friedrich Froebel in the nineteenth, and John Dewey at the turn of the twentieth century, among others" (Darling-Hammond & Oakes, 2019, p. 12). These philosopher-educators argue the supremacy of experiential, collaborative, and reflective forms of education over memorization.

These notions on effective education that constitute the basis of deeper learning are not exclusive to secondary education; however, adopting these approaches in higher education is not as robust. The New Media Consortium (NMC) Horizon Report (Adams Becker et al., 2017) states that while "disciplines including business, communications, psychology, and nursing are using the benefits of deeper learning approaches, research indicates that this trend has not yet seen wide penetration in higher education" (p. 12). In line with this notion, the NMC Horizon Report mentions that despite the absence of policies mandating deeper learning in post-secondary institutions, governments worldwide are prioritizing education reforms that emphasize skills that deeper learning revolves around. Clearly, this trend will continue to develop as deeper learning matures in practice. This proposed study focuses on deeper learning principles applicable to discussion-based online courses in relation to interaction and engagement, even if these principles stem from secondary education literature.

From Deep to Deeper

Before discussing what deeper learning entails, it is necessary to clarify how it relates to and differs from deep learning. An important note is that, in the context of this study, deep learning is separate from its current use as a subset of machine learning and AI. Instead, it solely concerns the field of education, where, at times, deep and deeper approaches to learning are used interchangeably (e.g., see Pereira & Wahi, 2019; Stover & Seemiller, 2017). Despite

their similarities, a closer examination of the literature reveals nuances between deep and deeper learning.

Deep Learning in Education. For over three decades, higher education in general and distance education in particular have portrayed deep learning as an engagement in approaches to learning that emphasize integration, synthesis, and reflection (Laird et al., 2008). Several studies define deep learning as the opposite of surface learning or the use of lower cognitive functions, such as rote memorization (Beattie et al., 1997; Czerkawski, 2014; Laird et al., 2008). This conceptualization stems from the original explanation of the term.

In 1972, Craik and Lockhart introduced the concept of deep learning as a higher level cognitive processing that involves longer time for analysis leaving a more persistent – or deeper – trace in memory. Unlike surface learning, deep learning refers to profound understanding of knowledge that enables the learner to grasp not only what that knowledge is but also how, why, and when that knowledge can be used (Marton & Säljö, 1976). Beattie, Collins, and McInnes (1997) elaborate on this concept, describing deep learning as characterized by students who:

1. seek to understand the issues and interact critically with the contents of particular teaching materials;

2. relate ideas to previous knowledge and experience; and

3. examine the logic of the arguments and relate the evidence presented to the conclusions.

Therefore, students who use deep approaches to their learning tend to read more widely, "combine a variety of resources, discuss ideas with others, reflect on how individual pieces of information relate to larger constructs or patterns, and apply knowledge in real-world

situations" (Laird et al., 2008, p. 470). The notion of associating discussions (or interactions) with deep learning is also present in Anderson's (2003) equivalency theorem (Figure 7).

To elaborate on this theorem, Anderson (2003) argues that "Deep and meaningful formal learning is supported as long as one of the three forms of interaction (student–teacher; student-student; student-content) is at a high level" (p. 4). Subsequent studies testing the equivalency theorem focus on the interaction component, sometimes substituting deep learning with other aspects of the educational experience.

Figure 7

A Model of Online Learning – Anderson's (2003) Equivalency Theorem
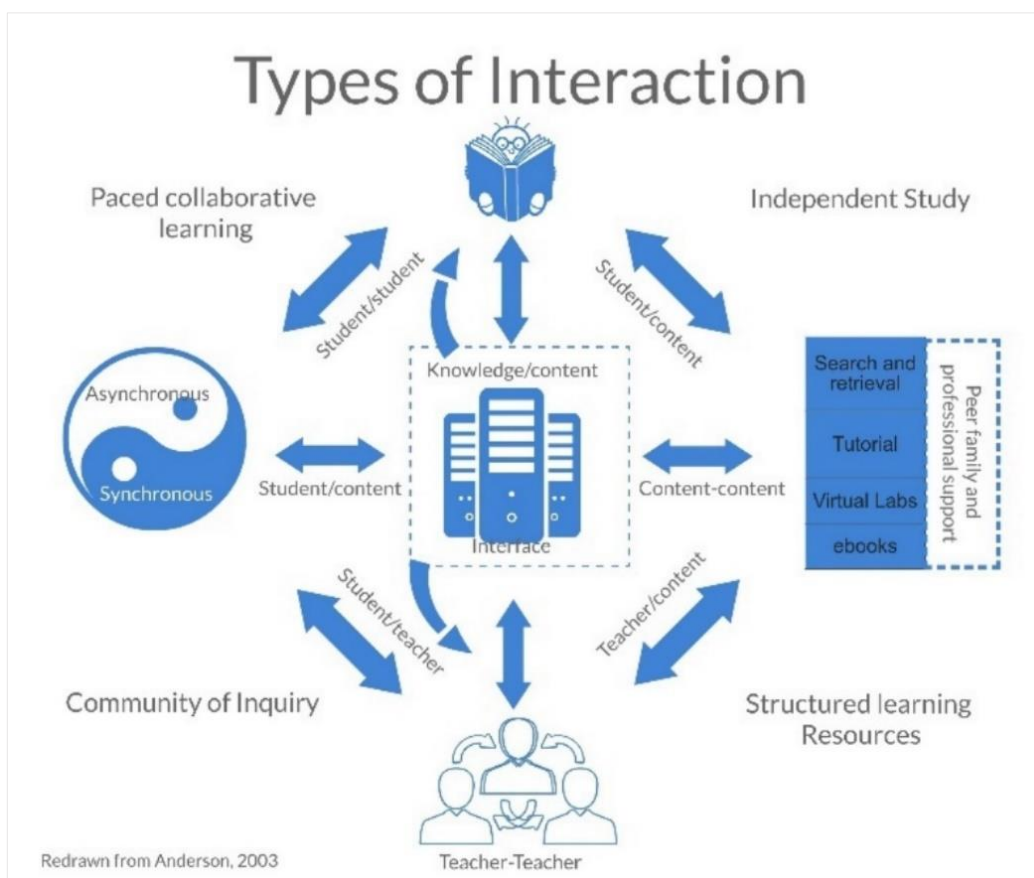
Note. This illustration of Anderson's (2003) Equivalency Theorem is copied from Dell (2021) with permission

For example, Padilla et al. (2015) discuss interaction in relation to learner satisfaction, engagement, and perceived readiness for knowledge transfer, whereas Xiao (2017) replaces deep learning with learning outcomes. With the gradual fading of deep learning from educational research, deeper learning gains currency as being "necessary for acquiring twenty-first-century skills" (Darling-Hammond & Oakes, 2019, p. 11).

Deeper Learning and Twenty-First Century Competencies

A widely shared conceptualization of deeper learning is that it prepares twenty-first-century students for success in education, career, and civic life. The popularity of this conceptualization is accredited to the Hewlett Foundation that first mentioned deeper learning as part of the 2010 education strategic plan, linking it to the following six competencies:

- Master core academic content.

- Think critically and solve complex problems.

- Work collaboratively.

- Communicate effectively.

- Learn how to learn.

- Develop academic mindsets.

Two years later, the National Research Council (2012) report defines deeper learning "as the process through which a person becomes capable of taking what was learned in one situation and applying it to a new situations – in other words, learning for 'transfer'" (p.1). Using the broader term "competencies" to encompass both skills and knowledge, the report committee organizes twenty-first-century competencies resulting from the process of deeper learning into three domains as follows (Figure 8)**:**

- Cognitive: includes thinking, reasoning, and related skills.

- Intrapersonal: involves self-management, including the ability to regulate one's

  behaviors and emotions to reach goals.

- Interpersonal: involves expressing information to others, as well as interpreting others'

  messages and responding appropriately.

Figure 8

National Research Council (2012) Deeper Learning Competencies
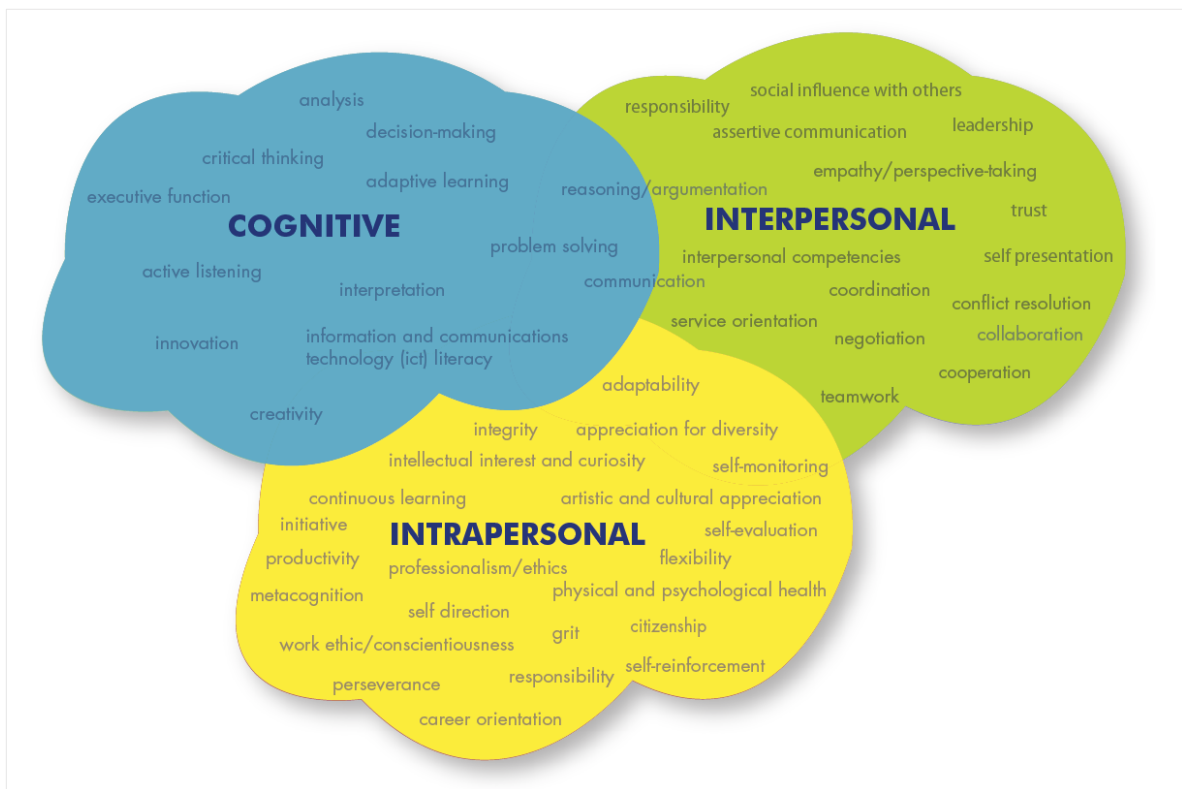
Deeper Learning Domains

A close examination of the aforementioned deeper learning competencies reveals their

compatibility with the engagement dimensions as well as elements of Bloom's taxonomy of the

cognitive domain (Bloom, 1956; Krathwohl et al., 1964). The original taxonomy contains six

categories ranging from lower order to higher order thinking skills. Since deeper learning can

be viewed as an expansion of deep approaches to learning, it inherently comprises higher order

thinking skills, including creativity and innovation (see Figure 9). In the revised version of

Bloom's taxonomy, L. W. Anderson and Krathwohl (2001) reflect the complex mental function

of creativity by replacing "synthesis" with "creating", repositioning the latter at the top of the

hierarchy. Another update that L. W. Anderson and Krathwohl (2001) implement in the revised

taxonomy is categorizing "knowledge" as a separate dimension that exists across the other six

cognitive processes. The authors also specify four types of "knowledge" that learning activities

address: factual; conceptual; procedural; and metacognitive (Figure 9).

Figure 9

Comparison of Bloom's original (Bloom, 1956) *and revised (L. W. Anderson & Krathwohl,*

2001) taxonomy of the cognitive domain
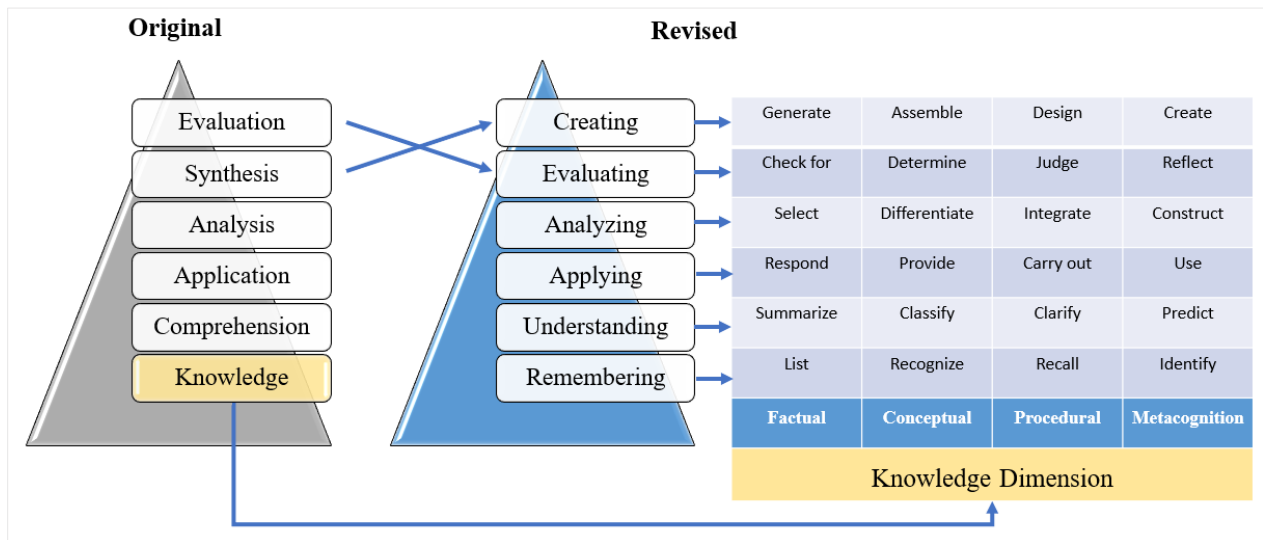
Both versions of Bloom's taxonomy (Figure 9) are subject to criticism due to their

portrayal of learning as a hierarchical and linear structure (Berger, 2018). As Bertucio (2017)

argues, the taxonomy reflects a Cartesian view of knowledge that is reductionist and

disconnected from lived experience. Its compartmentalization of learning into discrete skills

promotes an instrumental view of education as mere intellectual labor rather than a process of

personal transformation (Bertucio, 2017). Presenting components of Bloom's Taxonomy is relevant for this study because deep and deeper approaches to learning are commonly described as encompassing higher order thinking skills. On the other hand, since this taxonomy focuses solely on the cognitive domain, it is insufficient for addressing other components of deeper learning, which embraces multiple ways of knowing that lead to mastery, identity, and creativity (Mehta & Fine, 2019). In other words, instead of confining aspects of knowledge and creativity to the cognitive domain, deeper learning considers them as integrated with the interpersonal and intrapersonal systems, including the affective dimension of engagement discussed in Section 3 of this chapter. A deeper learning perspective provides a more holistic framework that moves beyond the limitations of Bloom's cognitively-focused taxonomy.

Figure 10

Relationship between personal, intrapersonal, and interpersonal aspects of learning as illustrated by Hoven and Palalas (2016)
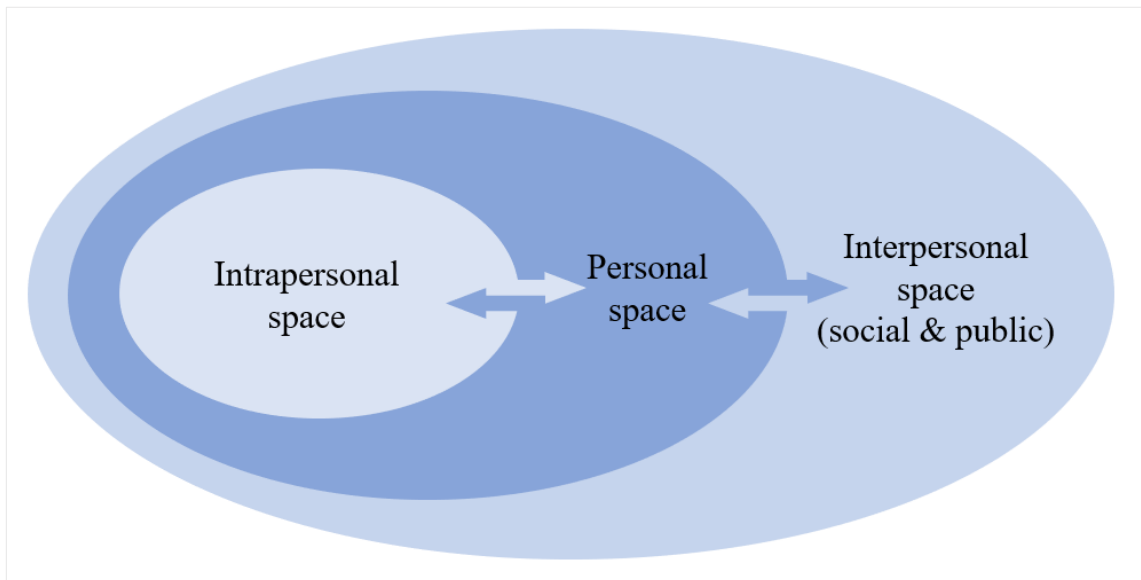
This view of deeper learning aligns with Hoven and Palalas' (2016) description of learning as comprising interpersonal as well as intrapersonal systems and processes (Figure

10). The interpersonal concerns external components that come into play while the learner collaborates with other individuals or interacts with the content and cues present in the environment. However, the intrapersonal is associated with processes that are internal to the learner, such as private speech and reflexivity.

Internal processes usually start with sensory perceptions followed by the learner's responses, which involve sensory, emotional, cognitive, social, and spiritual aspects. Hoven and Palalas (2016) clarify that "spirituality" in this context refers to deep levels of human responses that resonate with the person's values, beliefs, and *sense of being*. Once the learner notices and responds to sensory perceptions, awareness emerges, leading to intentional or unintentional reactions, which include ignoring perceived elements or integrating them into the learner's schema of knowledge. In this case, reactions can be internalized or stored for reflection and/or future action. This interplay between interpersonal and intrapersonal systems along with cognitive processes is mirrored in the dynamic, spiral-like movement of deeper learning that I discuss in the following paragraphs.

The Spiral Movement of Deeper Learning

In addition to being an umbrella term that encompasses approaches to deep learning along with desirable attributes of contemporary education, deeper learning includes distinctive features suitable for the study of eNVC in discussion-based online courses. Mehta and Fine (2019) provide viable descriptions of these features by explaining that deeper learning "emerges at the intersection of three virtues: *mastery, identity*, and *creativity*" (p.6). Linking back to the previous paragraph, identity reflects the learners' internal *sense of being* in the environment (Hoven & Palalas, 2016). Moreover, mastery and creativity can be viewed as the

76

goal, process, and outcome of dynamic movements between interpersonal and interpersonal spaces.

This view of what deeper learning entails extends beyond educational environments to encompass significant learning experiences in any setting, including life events. To further explicate that this entails, Mehta and Fine (2019) describe the notion of mastery using the example of individuals who move from being interested in a certain area (e.g., experimenting with a musical instrument) to engaging in deliberate practice under the supervision of a more experienced person. After continuous practice, the identities of these individuals gradually shift to reflect their participation in that area, that is, from "I am someone who plays music" to "I am a musician". Eventually, their knowledge and skills deepen, and creativity emerges in a more complex way, involving aspects of intrapersonal, interpersonal, and cognitive processes.

With this explanation, Mehta and Fine (2019) underscore the connotation of deeper as resembling an ever-evolving "spiral, in which one returns again and again to the same activities, but each time in a way that is more sophisticated" (p.15). The spiral analogy is pivotal to this study, and it constitutes a central point around which themes of this chapter revolve, as depicted in the conceptual framework below.

Conceptual Framework

Scholars refer to a conceptual framework as the system of concepts, assumptions, and theories that inform the research (Maxwell, 2013; Miles & Huberman, 1994). Guided by the literature reviewed in this chapter, the conceptual framework illustrated in
 depicts how I perceive key concepts of this study and the relationships among them.

Figure 11

Conceptual Framework: eNVC and Communication Tapestry in Discussion-Based Online Courses
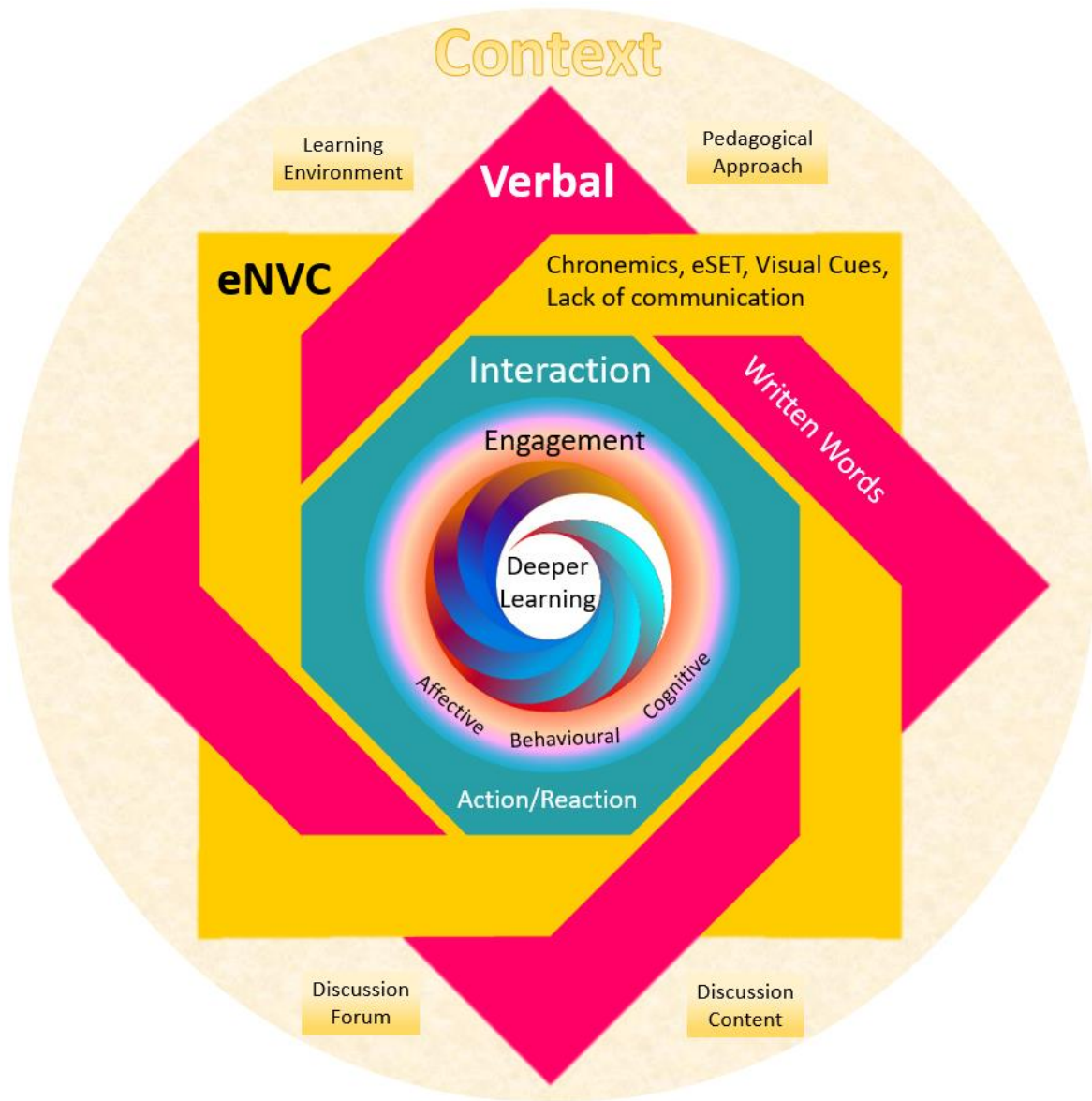
Inspired by the tapestry analogy that Burgoon et al. (2010) use to describe the intertwining of verbal and nonverbal cues, I visualize this principle as interlocking red and yellow squares. These two distinct, yet combined, angular shapes symbolize the unified communication system in the online discussion forums, where participants exchange verbal messages through the

meaning of written words. Since every verbal message has a nonverbal aspect to it, in this

study, the nonverbal is reduced to eNVC due to the textual, asynchronous, and electronic

nature of the message. While verbal messages are highly visible (represented by the sharpness

of the red color), eNVC are less noticeable, and tend to blend with the contextual environment.

Being less noticeable does not imply that eNVC are less influential, especially because aspects

of eNVC are associated with satisfaction or success in online courses. Examples include

linking the frequency of participation and promptness of feedback with academic achievement

or engagement (Giacumo & Savenye, 2019; Mehall, 2020). Both frequency and promptness are

aspects of chronemics, as discussed in the last part of Section 1 of this chapter.

The importance of chronemics in the online course discussion forums emanate from

their recognition in the literature as the last category to survive reductions in nonverbal cues

(Burgoon & Walther, 2013; Walther, 2006). Other forms of eNVC elaborated on in Section 1

include, but are not limited to: 2D visuals, eSET, silence or pauses in communication (Al-

Tawil, 2019). Due to their inherent nature as a subset of nonverbal communication, eNVC

mirror the functions of other types of nonverbal cues in repeating, conflicting, complementing,

substituting, accenting/moderating, and regulating verbal messages (Ekman,1965a; Knapp et

al., 2014). According to the substituting function, eNVC can replace verbal messages,

especially when meanings are drawn from behaviors of participants in the discussion forums.

For instance, depending on the environmental and relational contexts, silence in the form of

lack of response to a posting can be an intentional behavior that expresses disapproval. In the

conceptual framework illustration (

), I represent the substituting function of eNVC with the irregular, yellow octagon

contouring interaction. My choice of placing the stand-alone feature of eNVC closer to

interaction is based on the assumption that substituting nonverbal messages align with the definition of interaction as they involve reciprocal actions and reactions.

As discussed in Section 2 of this chapter, scholars identify at least three forms of interaction in online courses, which they refer to as: learner-learner; learner-content; and learner-instructor (T. Anderson, 2003; T. Anderson & Garrison, 1998; Moore, 1989). In parallel with any other communicative event, such interactions take place within the environmental context of the asynchronous online course. This notion appears in the larger circle representing the communication context, along with other features related to the virtual learning environment, including the LMS features, the participants' roles, and the relationships among them. These aspects of the communication context, along with others, such as the instructional design embedded in the pedagogical approach, are outside the scope of this study. However, identifying their role and position in relation to the research topic provides a holistic view of various factors that can influence other concepts, particularly engagement.

As discussed in Section 3 of this chapter, research shows that engagement is malleable and sensitive to contextual features (Fredricks et al., 2016; Fredricks, Reschly, et al., 2019). Another feature of engagement is that, at certain levels, it overlaps with interaction and deeper learning. This overlap is represented by the colors of the circles extending between deeper learning and interaction. For instance, the relational aspect of engagement overlaps with interaction, whereas the cognitive dimension of engagement mirrors the cognitive domain of deeper learning. Additionally, the behavioral dimension of engagement can be reflected in the interpersonal domain of deeper learning, while the emotional dimension can be linked to the intrapersonal domain. Due to the dynamic, ever-growing feature of deeper learning, I illustrate it as a spiral that encompasses aspects of engagement and interaction in online discussions.

Chapter 2 Summary

      This chapter titled *Setting up the Loom* presents a review of literature pertaining to the concepts of communication, interaction, engagement, and deeper learning in relation to eNVC in discussion-based online courses. Section 1 discusses the complexity of the broader concept of communication and its nonverbal aspect, including eNVC. Since this study explores aspect of eNVC that can promote or hinder deeper learning through interaction and engagement in the online course discussions, Section 2 focuses on interpersonal interactions within the discussion forums, drawing distinctions between them and social presence. These distinctions establish the underlying assumptions for the data gathering and analysis. Section 3 examines the literature on the meta-construct of engagement, which involves behavioral, emotional, and cognitive dimensions. These dimensions align with the cognitive, interpersonal, and intrapersonal dimensions of deeper learning. Section 4 highlights this alignment, along with the recent emergence of deeper learning as an umbrella term encompassing 21st-century competencies that learners need to succeed in education, career, and civic life. Chapter 2 concludes with the conceptual framework that guided the design and process of this study.

ENVC & DEEPER LEARNING

CHAPTER 3

CHANGING SHED

Changing Shed, our story grows,
Through each method's highs and lows.
Researcher and weaver unite,
Guiding threads of knowledge bright.

Chapter 3: Changing Shed

(Methodology)

The title of this chapter, *Changing Shed*, draws inspiration from the rhythmic raising and lowering of warp threads in the art and craft of tapestry weaving. In this craft, changing the shed refers to the careful alternating of warp threads to create the opening where the weft is inserted. The full significance of this repetitive and meditative movement becomes clear after countless rows are woven, revealing the tapestry image. This metaphor aptly illustrates the evolution of my methodological approach through this research, which emerged after completing the first draft of my dissertation. Being deeply involved in the various components of my study initially obscured the larger methodological patterns that were forming and evolving throughout the process. It is only in retrospect that I can appreciate how each of my methodological decisions have interwoven to yield meaningful insights, similar to the threads of my dissertation tapestry. The title, *Changing Shed*, evokes this creative process of discovery unfolding through my research.

To elaborate, I begin this chapter by establishing my philosophical underpinnings, and follow with an overview of artography as a methodology. I then discuss my positionality as an artist, researcher, and teacher naturally inclined towards artographic ways of knowing. Following this, I examine intersections between artography and reflexive inquiry and outline the key questions guiding my research. I conclude this chapter with a brief discussion of the narrative methods I enacted through artography. Notably, while I introduce my overarching methodology in this chapter, I cover details about the specific research design, processes, and procedures in Chapter 4.

Evolving into Artography: A Journey of Methodological Growth

To expand on the changing shed metaphor, just as a weaver adjusts the warp and weft to create a rich tapestry, I embarked on my research journey using a methodological bricolage (Kincheloe, 2001; Kincheloe et al., 2018), initially drawing from aspects of narrative inquiry (Caine et al., 2022; Clandinin, 2013; Connelly & Clandinin, 2006), and reflexive narrative (Johns, 2020; Lyle, 2014, 2015). This approach, deemed suitable at the onset of my candidacy, evolved in tandem with my research. As I navigated the intricate interplay of different components of my study – most notably my engagement in weaving – I found myself naturally gravitating towards an artographic methodology (Irwin et al., 2018; Springgay et al., 2008). Due to the very nature of artography, embedded in its nomenclature that emphasizes the symbiotic relationship between art, research, and teaching (Irwin, 2008), my research narrative found a more coherent and dynamic space to flourish. This shift not only facilitated my role as a researcher-weaver and deeper learner within my study, but it also acknowledged the confluence of various facets of my identity as an artist, researcher, and teacher (symbolized in letters a, r, and t of artography – originally written as a/r/tography to highlight these identities). Before I discuss these facets in the positionality section of this chapter, I first examine the philosophical foundations that underpin my study and guide my methodological evolution into artography.

Philosophical Underpinnings

My study is deeply rooted in a foundational paradigm that serves as a compass, guiding my journey of exploration. Scholars describe a paradigm as a set of beliefs, a worldview, or shared principles that guide the search for knowledge (Cohen et al., 2018; Creswell & Creswell, 2018). Drawing from this perspective, I anchor my research in the

interpretivist/constructivist paradigm. Through this lens, I view reality as subjective and knowledge as socially constructed, portraying individuals as active agents interpreting their surroundings from their unique perspectives (Creswell & Creswell, 2018; Denzin & Lincoln, 2018). To further elucidate, the paradigmatic lens through which I have conducted this study offers a viewpoint where reality does not stand apart from human perception. Instead, individual perceptions, beliefs, and interactions shape and continuously redefine this reality. My alignment with the interpretivist/constructivist paradigm stems not only from academic reasons but also from a deep-seated belief in the dynamic and fluid nature of knowledge and understanding.

In light of my paradigmatic stance and the focus of my research on eNVC and deeper learning, a qualitative approach emerges as a fitting choice for this study. This approach aligns with the focus of my study, which delves into a relatively uncharted territory in communication research, specifically emphasizing the meanings both conveyed through and attributed to eNVC in online course asynchronous discussions. The interpretivist/constructivist foundations of this research are particularly important given that my research questions seek to explore perceptions relayed by participants as shaped by their unique values and lived experiences. The qualitative approach is intrinsically exploratory, geared towards achieving depth and comprehensive understanding. It was during this quest for depth and nuanced insight that I was drawn to artography, as its principles align with central dimensions of qualitative research, which I explore further in the next section.

Qualitative Approach

As I embraced artography, I found alignment with several salient characteristics of qualitative research as outlined by Creswell and Poth (2018). For instance, a qualitative

approach prioritizes the researcher's active role in collecting and analyzing data, rather than

relying on external instruments. This intimate, hands-on approach strongly resonates with me,

as it allows me to explore multifaceted understandings using various complementary methods

in my quest for nuanced insight. In this regard, I found myself integrating elements of narrative

methods, poetry, weaving, journaling, and reflexive inquiry in a complementary manner

throughout this study, as I explain further in this chapter and detail more fully in Chapter 4.

In addition, the contextual focus integral to qualitative research strongly aligns with the

aim of my dissertation exploring eNVC in asynchronous online learning environments. As

established in Chapter 2, eNVC represents a highly contextual area of communication, where

meaning is shaped by the surrounding environment. Since context plays an indispensable role

in communicative situations, the emphasis of qualitative research on contextualized, situated

knowledge aligns seamlessly with the focus of my study on the impact eNVC can have on

deeper learning through interaction and engagement in asynchronous online course

discussions.

Another area where qualitative research and my study converge is in the adaptive nature

of the research design. In qualitative research, the design is inherently emergent (Creswell &

Creswell, 2018; Mayan, 2023). Although researchers may begin with an initial plan or

roadmap, they remain open to unexpected turns, adapting and refining their approaches as they

delve deeper into their study. Insights gleaned from the field can also reshape the trajectory of

the study (Creswell & Poth, 2018). This flexibility not only ensures that the research remains

attuned to the realities on the ground but also underscores the commitment to a process that is

both dynamic and responsive. Such flexibility resonates strongly with my research journey,

which, began with a loosely charted roadmap filled with twists and turns (Figure 14). While the

initial trajectory was fraught with uncertainty, these detours gradually steered me onto a path that I had not anticipated. As I progressed, I embraced this uncertainty and, in hindsight, this winding path contributed immensely to my growth as a researcher-weaver and deeper learner. Keeping a learning journal proved invaluable, as in it I captured these moments of growth reflectively and reflexively. I share some of these moments in Chapter 6, offering an authentic recount of my transformative journey throughout this study. This practice of documenting and reflecting underscores the importance of reflexivity in my research.

Following this vein of thought, reflexivity stands as a fundamental pillar of qualitative inquiry, compelling researchers to transparently convey how their roles and perspectives influence their research (Creswell & Poth, 2018; Denzin & Lincoln, 2018). Such introspection not only supports the credibility of the findings but also enhances the rigor, trustworthiness, and transparency of the research process. While a considerable focus in qualitative research is on the researcher's conscious reflections throughout the investigative process, my study extends this to explore the relational nuances of artography and reflexive inquiry, a dimension I elucidate further in the Relational and Reflexive section of this chapter.

After emphasizing the introspective nature of qualitative research, it is worth noting that, at its core, qualitative research champions the voices and experiences of participants, allowing their narratives to take center stage. This approach fosters a balanced and collaborative dynamic between the researcher and participants, as highlighted by scholars in the field (Clandinin et al., 2018; Creswell & Creswell, 2018; Mayan, 2023). This ethos of researcher-participant collaboration has become pivotal to my methodological leanings as I embarked on weaving the tapestry of eNVC and deeper learning for this dissertation through an artographic methodology, which I elaborate on next.

Artography Overview

The aforementioned philosophical underpinnings and qualitative approach provide the rationale for adopting artography as my methodology for this study. Before outlining its suitability for my research path, I provide a brief overview of core artographic concepts.

Interdisciplinary Roots and Foundational Concepts

Since its inception in the mid-2000s, artography has carved its niche as a methodology integrating art, research, and teaching (Irwin & De Cosson, 2004; Springgay et al., 2005, 2005). Celebrated for its interdisciplinary, dynamic, and emergent nature, artography challenges and expands the boundaries of conventional research. According to LeBlanc and Irwin (2019), this approach challenges the traditional criteria of research and invites alternative methods of understanding. Additionally, it harmoniously integrates diverse modes of inquiry used in qualitative methodologies such as autobiography and participatory action research.

In outlining the foundational concepts of artography, Irwin and Springgay (2008) emphasize the interplay between understanding experience through "theoria" (knowing), "praxis" (doing), and "poesis" (making) (p. xxiii) . Accordingly, theoria represents conceptual knowledge, praxis practical application, and poesis creative expression (Lasczik et al., 2021). Artography thrives in the liminal spaces between these domains, fostering collaboration between artists, researchers, and teachers as they innovatively expand their practices (Irwin et al., 2018). In particular, *praxis* underscores the integrated act of creating and reflecting on meaning, aligning with the focus of artography on embodied knowledge construction through practice. The methodology reconceptualizes theory and practice as fluid, relational, and perpetually evolving through praxis. This fluid approach to praxis is particularly relevant to my

study, which aims to provide insights and practical recommendations that can inform the good practices of educators and institutions as they engage in online teaching and learning.

Aligning with this conceptualization, artography literature offers renderings as generative avenues for exploration rather than prescriptive methods (Sinner et al., 2018; Springgay et al., 2005). *Rendering* purposefully draws from art to spotlight the creative process integral to developing insights (LeBlanc & Irwin, 2019). Through renderings, artography surfaces as an evolving integration of art, research, and teaching, fostering dialogic engagement (Irwin, 2013).

Of the six renderings in artography originally described by Springgay et al. (2005), namely, contiguity, living inquiry, metaphor/metonymy, openings, reverberations, and excess, my study finds most resonance with the tapestry metaphor and living inquiry. I embodied these by adopting the role of researcher-weaver to gain deeper understanding of my research topic. In this regard, the words of Springgay et al. ring profoundly true to my organic research journey: "Renderings are not methods...[but] theoretical spaces through which to explore artistic ways of knowing and being research" (p. 899).

Beyond a Methodological Term

The original writing of the term *a/r/tography* transcends mere methodological classification because the identities of artist, researcher, and teacher are embedded within the name itself. As Irwin et al. (2006) explain, the term embodies contiguity, interweaving these roles (represented by the letters a, r, and t respectively). None are privileged over another; rather, they coexist, intersecting and intertwining "simultaneously in and through time and space" (p.70). These identities also indicate the dynamic engagement and conceptualization within the expansive terrain of artography (Irwin & Springgay, 2008; Springgay et al., 2005).

Initially, the forward slashes in the term indicate movements and transitions between the identities of artist, researcher, and teacher capturing liminal spaces where a/r/tographic constructs take shape (Irwin et al., 2006; Lasczik et al., 2021). However, inspired by insights from Sinner et al. (2021) and my dissertation committee, I made the deliberate choice to omit the slashes from artography and any related terms while writing the final version of my dissertation. This respects the holistic entanglement I encountered while engaged in artography, embodying an amalgamation of different facets of my identity as artist, researcher, and teacher that were very challenging to separate. Such entanglement echoes the rhizomatic underpinnings of artography. Drawing upon Deleuze and Guattari (1987), artography scholars describe its rhizomatic nature as interconnected and decentralized, focusing on process over product. As Irwin (2013) notes, artography focuses on "experimentation: altering, reversing, modifying," (p. 211) thus embodying perpetual becoming. This state of perpetual becoming aligns strongly with the notion of an ever-evolving spiral that Mehta et al. (2019) use to describe deeper learning, as discussed earlier in Section 4 of Chapter 2. This notion of deeper learning around which my research journey and weaving experience revolve solidifies the symbiotic relationship between artography and ultimately, the essence of my dissertation.

Beyond Linguistic Pairing: Art and Graphy Intertwined

In addition to the rhizomatic nature of artography that resonates with my research, I am drawn to another dimension of this methodology: the intricate intertwining of *art* and *graphy*. While refining this chapter, I came to recognize this union as fundamental to artography, merging the creative expressions of *art* with the intricacies of *graphy* (Irwin, 2013; Irwin & De Cosson, 2004; Lasczik et al., 2021). This intertwining extends beyond mere linguistic pairing. Through *art*, the methodology embeds itself within the tangible, visual, and aesthetic

dimensions of creative expression, thus evoking profound emotions and challenging

conventional narratives. On the other hand, *graphy* embodies the scholarly commitment to

inscribe, document, and unravel meanings through textual representation. This symbiotic

relationship challenges entrenched boundaries between artistic creativity and scholarly

criticality, paving the way for a space where the organic flow of art is in harmony with the

discipline of academic exploration. Such integrations can lead to unveiling nuanced

interpretations that conventional research methodologies might overlook (Irwin, 2013; Irwin et

al., 2006, 2018). The intertwining of art and writing underscores their reciprocal influence,

jointly constructing layered meanings. This integration also mirrors how artography

interweaves diverse experiences and perspectives through its reflexive and relational nature,

which I expand on next.

Relational and Reflexive

Scholars often refer to artography as inherently relational and reflexive. As such, it is in a

continuous state of movement "that is not about an arrival, but is about lingering in the

emergent, unforeseen, and unexpected events that it provokes" (Irwin et al, 2018, p. 50). Sinner

et al., (2021) also point to the value of artography as a flexible approach to inquiry that is

"dynamic, responsive and often morphing with the present moment" (p. 31).

In earlier artography writings, Irwin (2013) discusses the reflexive dimension of

artography, noting that it is "a self-reflective and self-reflexive engagement ever recognizing

the presence of many individuals who have physically, emotionally, intellectually, and

spiritually taken this journey with me – if even for a moment – touching the life of one

another" (p. 199). This statement resonates deeply with my personal beliefs that were

transferred to the way I have conducted this study. As I describe in Chapter 4, specifically in

the (Un)finished Tapestry section, after completing my dissertation tapestry based on the narratives of the research participants, I used the continuous warp of the original tapestry to weave smaller pieces for the people who supported me throughout this journey. Aware of the significant influence many people had on my research, I considered this a token of gratitude for their support. The little tapestries represented the significant influences of my research participants, supervisor, committee, peers, and other scholars or friends who contributed to my study. It was only in retrospect, over a year after completing this additional weaving, that I came to realize how my actions aligned with key principles of artography. I found myself recognizing how, in the words of Irwin, these individuals and I had touched each other's lives, physically, emotionally, intellectually, and spiritually accompanying one another on this journey, if even for a moment. This discovery illustrates how, even without being consciously aware of artographic tenets at the time, I was intuitively drawn to its reflexive nature on my journey of becoming a researcher-weaver.

This intuitive alignment with the reflexive character of artography, as evidenced in my weaving process, resonates with the "relational ways of knowing and being" that Irwin and Ricketts (2013, p.8) emphasize as central to artography. My attunement to the significance of relationships, though not conscious at the time, echoes Irwin's (2013) statement about recognizing the deep connections formed with others who have "taken this journey with me" (p. 199). This also echoes Lyle's (2018) depiction of artography as opening spaces for "engaging with each other – fostering a relational pedagogy while untangling connections between theory and practice, art and text, you and me" (p. 4). In this respect, Lyle (2018) also notes that artography "encourages a fluid form of research that is made rigorous by this continuous reflexivity and analysis" (p. 5).

Drawing from the previous, I highlight that central to artography is a deeply relational and reflexive orientation. Artography facilitates critical introspection both individually and communally, interrogating contexts and assumptions. It demands continuous reflexivity and analysis to rigorously examine evolving understandings (LeBlanc & Irwin, 2019; Lyle, 2018). As Sinner et al. (2021) explain, artographic research involves dynamic engagement attentive to relationality. This clearly draws the lines between the inherent reflexive and relational nature of artography and the tenets of reflexive inquiry that I elaborate on next.

Linking Artography to Reflexive Inquiry

Drawing upon scholarly insights, especially from Lyle (2018, 2023), Cunliffe (2016, 2020), and McGarry (2019), I perceive reflexive inquiry to be a fluid, dynamic, and introspective methodology. Within this framework, the researcher's consciousness and critical reflexivity are essential in the research process, playing a vital role in fostering knowledge creation and exploring varied pathways to knowledge and understanding. At its core, reflexive inquiry emphasizes the researcher's active role in meaning-making through continuous reflexivity, surpassing the boundaries of mere reflection. To further explain this distinction, it is important to note that reflection is retrospective and individualistic, whereas reflexivity adopts an ongoing, relational approach, inviting introspection concurrently rather than purely in retrospect (Freda & Esposito, 2017). As Lyle (2023) succinctly puts it, "reflection is *after* and *individual* whereas reflexivity is *ongoing* and *relational"* (p. 2).

By adopting a reflexive inquiry methodology, researchers undertake a dual obligation: they assume accountability for their decisions within expansive relational frameworks while simultaneously challenging traditional notions of research objectivity. Lyle (2023) further articulates the relational aspect of reflexive inquiry, stating that "We are always in relation —

with earlier versions of ourselves, with each other, and with the world" (p. 3). This approach insists on valuing both self and others, recognizing the mutual shaping and reciprocity in interactions. These notions echo Mann's (2016) perspectives on reflexivity as being "focused on the self and ongoing intersubjectivities. It recognizes mutual shaping, reciprocity, and bi-directionality" (p. 28).

The relational emphasis of reflexive inquiry resonates strongly with the relational essence of artography, which perceives subjectivity as "multidimensional, collective, and plural" (Irwin, 2013, p. 200). As detailed in the previous section, artography involves deep aesthetic engagement, attentive to the unfolding processes of inquiry and complex relational dynamics and entanglements within them. Recognizing these complementary facets, I deliberately incorporated reflexive inquiry into my artographic methodological approach. This approach is particularly well-suited for my study, which focuses on relational constructs, specifically the eNVC aspect of communication, along with interaction and engagement in asynchronous online courses. While this methodological integration is embedded throughout my study, I bring it distinctly to the fore in Chapter 6, which revolves around my reflexivity through the act of weaving.

The reflexive essence of my methodological approach necessitates that I not only examine my biases, beliefs, and experiences that I bring to my scholarly work, but also articulate them explicitly throughout my study. As Iosifides (2018) notes, absolute objectivity is unachievable, particularly through the interpretivist/constructivist paradigmatic lens that I have adopted. However, conscious integration of my interpretations through creative means allows me to acknowledge my biases while upholding participant perspectives. This is particularly evident in artographic research and narrative methods, where the researcher′s deep

involvement in data generation and interpretation may inadvertently introduce biases. In this regard, George Belliveau in Springgay et al. (2008) observes that bias is inevitable and even essential when research takes the form of art. This sentiment resonates with my own experiences in this dissertation, especially evident in the poems and tapestry that I crafted. Nonetheless, as George underscores, there is an ethical responsibility to remain faithful to the essence of the data at hand. To this end, I ensured fidelity to the participants′ voices through member-checking and by presenting their narratives in their raw, unaltered form, allowing readers and researchers to draw their own interpretations, and critically evaluate my work.

Moving from this methodological framework to its practical application, adopting reflexive inquiry enabled me to rigorously interrogate my embedded identity as an artist, researcher, and teacher within the evolving artographic process. Through weaving, journaling, discussions with participants, reflection, and reflexivity I was able to examine my assumptions, partialities, and preconceptions emanating from my positionality. This dual-methodological approach, employed throughout my study, proved beneficial in facilitating continuous, holistic introspection, allowing me to mitigate my subjective limitations. Most notably, the hands-on process of weaving provided a creative avenue for integrating the participants' narratives, direct quotes, and words with my own interpretations and experiences. The intersection of our collective perspectives upheld participant voices while enriching the emerging insights gleaned through them.

Therefore, engaging in reflexive inquiry within my artographic study involved ongoing weaving together of self-knowledge, relational knowledge, and new understandings. This methodology required me to embrace the complexity of constructed realities through cycles of critical reflexivity and relational engagement, contributing to my development as both a

researcher-weaver and a deeper learner. On a critical reflexive level, I consistently found myself attuned to the rhythmic actions of my weaving, oscillating between the over, under, back, and forth movements of the weft threads. As I engaged in this process, I repeatedly listened to the recorded interviews of the research participants, all the while guided by the three aspects of critical reflexivity that Cunliffe (2016, p. 174) delineates:

- Existential: Who am I, and what kind of person do I want to be?

- Relational: How do I relate to others and to the world around me?

- Praxis: How do my past actions inform future possibilities?

These existential, relational, and praxis-oriented aspects of reflexivity harmonize well with the principles of artography. In asking questions such as "*Who am I*?" and pondering the person – and by extension, the researcher – that I am evolving into, I found myself "questioning [my] very being and becoming" (Irwin, 2008, p. 28). Sometimes, this journey led to moments of disruption where I discovered not just new ways of knowing and understanding, but also unexpected ways of *being* and *becoming*. My exploration of interaction, engagement, deeper learning, and eNVC transformed from abstract concepts into embodied experiences that informs praxis. This process of discovering new ways of theorizing and practicing relates to evolving my praxis, which I understand as emerging from the integration of theory and practice, particularly when oriented towards mutual understanding and re/humanization, as Lyle (2023) explicates.

These critical reflections on existential, relational, and praxical aspects of reflexive inquiry exemplify my ongoing evolution as an emerging artographer. This methodological approach promoted conscious integration of my multifaceted identities as artist, researcher, and teacher. As discussed, artography researchers operate in interstitial space, drawing from diverse

positionalities (Irwin, 2013; LeBlanc & Irwin, 2019). My journey of reflexive disruption, embodiment, and praxis growth reflects inhabiting this interstitial entanglement of identities. In the next section, I delve deeper into my positionality as an artographer, shaped through the intersections of art, research, and teaching.

Positionality

In keeping with an artography methodology, which emphasizes the researcher's positionality as influential in methodological choices (Sinner et al., 2021), I explore facets of my identity that shaped the decisions I made in this study. Upon this examination, I realize that my identity informs my experiences as an artist, researcher, and teacher. This synthesis echoes elements of the fluid artographic practice (Irwin et al., 2006) as discussed earlier in this chapter. Considering artography in relation to my positionality and its bearing on this study, I am drawn to its embodiment of my identity as *artist*, *researcher*, and *teacher* (Irwin & Springgay, 2008). While my researcher and teacher selves are often overt in my academic work, my artistic side is rarely revealed. However, in desiring to bring my whole *self* into this project, I was drawn to rediscover the *little artist in me*, whom I thought had long vanished, as described next.

A for Artist

To better understand the analogy of a communication tapestry in relation to this research, I resolved to teach myself how to weave a tangible research tapestry, while drawing inspiration from participant narratives and my own storied experiences. This decision was not easy, given the time and effort necessary to learn a new craft while completing my dissertation. Yet the prospect of engaging multiple ways of knowing enthused me, as detailed in Chapter 6. Contemplating the sources of my enthusiasm, I realized that they derived from my artistic

identity, which I believed had long vanished due to life circumstances. I wrote the following in

my learning journal in November 2020, shortly after deciding to approach this study as a

researcher-weaver:

The Little Artist in Me

I looked at my desk as I typed this title and smiled at the sight of my notes (Figure 12).

Figure 12.

Notes from my desk in November of 2020

I have just noticed that I think in words and images. Each time I pause to collect

my ideas while working on this study, I automatically grab a pencil and sketch some

shapes that I keep adding lines and shadows to, as I scribble a note, a reminder of a

citation, or a reference that I need to revisit.

Despite all the forces in my life that pushed me away from art, it seems that the

little artist in me has never died. That little artist, who made drawings on my mother's

walls and paintings on the house mirrors as a child, had big dreams as a visual arts student. But who cares about art during the war? [4]

Eventually, she gave up on her dreams and took a job as an English teacher. But the little artist managed to reappear by starting a drawing club at school while taking up media arts and working in movie production simultaneously. However, this too had to end when her new life in another country began. As if being a wife and mother of four little children while starting a new career in a foreign country were not enough to completely suffocate her, she added graduate studies to the equation. But it seems that the little artist in me, whom I had forgotten even existed until I glanced at my desk a few seconds ago, is still alive.

Despite all circumstances, I think the little artist in me has become a phoenix arising from the ashes, in another attempt to combine the ambiguity of my present experience with who I was and who I am becoming through this research.

R for Researcher

Looking back on the previous excerpt from my journal, I realize that it not only illustrates my artistic identity but also the degree to which it integrates into aspects of my identity as an educational researcher. I wrote this passage months before my encounter with artography, during my preparation for my dissertation proposal. It was around three years before I realized how much my dissertation had organically embodied an artographic methodological path. In hindsight, I view this excerpt as articulating my intrinsic orientation toward generating "embodied knowledge, gleaned through a self-reflexive experiential praxis as a process of becoming" (McGarry, 2019, p. 156). This predisposition inspired me to immerse myself in the

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[4] Reference to the Lebanese Civil War that I lived through from 1975 to 1991

art of tapestry weaving as a "deliberate investigative pathway of discovery, lucidity, and an elicitation that guides knowledge acquisition" (McGarry, 2019, p. 156). Drawing upon relevant scholarship, Lyle (2020) describes this pathway as one that fosters knowledge creation rather than mere consumption, and values processes over products. In the field of education, this approach encourages both educators and learners to embrace risk-taking as an integral part of the learning journey—a concept that I grew to appreciate while weaving my way into deeper learning through weaving. In the Educated Risk section of Chapter 6, I share some of my experiences on this topic, revealing how interconnected my cognitive, emotional, and spiritual ways of knowing can become through artography.

In this context, Lyle (2020) argues, and I concur, that artography can serve as a transformative space that re/humanizes education. It accomplishes this by intricately weaving together the cognitive, affective, and spiritual dimensions of our *selves*, thus promoting wholeness and integrity. Adopting this perspective, I position myself within this study as an artist, researcher, and teacher – or artographer – weaving insights about verbal and nonverbal threads of asynchronous online course discussions into this dissertation tapestry. By taking the risk of converting the narratives of the participants and my own experiences into a form of tactile art, I attempted to challenge common practices in educational research that prioritize cognitive forms of knowledge over affective and spiritual ones. To further this endeavor, I turned to poetic expression as a means to convey layers of the narratives that prose alone could not fully encapsulate. This choice rekindled another artistic aspect of my identity – poetry – which becomes particularly salient when I am deeply emotionally engaged. Incorporating poetry into this study was an intuitive decision, aligning with my belief in holistic meaning-making. This sentiment is echoed by scholars who emphasize the power of poetry in

supporting the exploratory, artistic and reflective goals of artography (Gouzouasis & Leggo, 2016).

Consistent with this perspective, my poetic voice naturally emerged while I was engaged in the academic writing component of this study. This emergence was not merely coincidental; instead, it was the byproduct of the entanglement of the artistic and researcher facets of my identity. Allowing my poetic voice to surface in my scholarly prose offered me alternative methods for engaging in this study with both heart and mind, reigniting my aspiration for a humanistic approach for research. This is consistent with my teaching philosophy, which advocates for reintegrating the human element into both education and research. In the following section, I explore my identity as a teacher and examine its interrelationship with the core principles of artography.

T for Teacher

With an emphasis on authenticity, I revisited earlier versions of my teaching philosophy before drafting this section. While my primary aim was to recognize how I have evolved as an educator over the past two decades, I was pleasantly surprised to discover that my foundational beliefs as a novice teacher align closely with the theories I currently advocate as an educational researcher. For instance, in an early draft of my teaching philosophy, I described myself as a teacher *at heart*, and as someone who *genuinely cares* about the intellectual, personal, and social development of learners. Even before I was aware of learner-centered pedagogies, I had an instinctive understanding of the importance of prioritizing learning over teaching and acknowledged the role of social interactions in knowledge construction and retention.

During the initial years of my career, I worked as a schoolteacher. The subjects I taught were diverse, ranging from English Language and Social Sciences to Visual Arts (mainly

drawing and painting). Eventually, I transitioned into adult education, initially working as an English Language instructor before becoming a corporate trainer.

As my teaching identity evolved in tandem with my role as a training specialist and instructor in the corporate environment, I came to understand that my role is not to instruct, but rather to promote reflective, collaborative, and respectful engagement in learning opportunities among all members of the learning community. This belief was deepened by working closely with colleagues for professional development, solidifying my awareness that I am an equal member of the learning community, engaged in both teaching and learning simultaneously. Therefore, my teacher identity inherently incorporates the avid learner in me who conducted this study alongside the participants.

Before delving into the focus of my study, it is worth noting at this point that my career in teaching and instruction has another overlapping artistic dimension. Due to my specialization in online education, I honed my skills in instructional design and became proficient in using technology for educational purposes, including the creation, design, and development of online courses. As I advanced in my career, I rose to the position of Senior Instructional Designer and E-learning Senior Consultant. In this role, I led teams of instructional designers and collaborated with institutions to identify and address specific learning needs through online courses. While this aspect of my career pertains to the technical side of education, it also closely aligns with my identity as an educator in various capacities. This multifaceted experience allows me to approach my research findings with an eye toward the complex interplay between online instructional staff, technology, and the human elements of learning. My background in instructional design contributes to my holistic perspective on online education.

Having outlined the entangled facets of my identity as an artist, researcher, and teacher, I wish to emphasize at the end of this section that this identity blend does more than establish a backdrop for my study. Instead, it adds nuanced layers of depth and complexity to the research, enabling a multi-dimensional exploration of eNVC and deeper learning. It is through this multidisciplinary lens that I now reiterate the research questions that have guided this exploration.

Research Questions

This research sought to address two main questions and two subquestions as follows:

1. What aspects of eNVC contribute towards interaction and engagement that lead to deeper learning in the asynchronous, discussion-based online learning environment?

1a. What aspects of eNVC do instructors perceive as promoting or hindering interaction and engagement in asynchronous online course discussions?

1b. What aspects of eNVC do learners perceive as promoting or hindering interaction and engagement in asynchronous online course discussions?

2. From the inter-storied responses of the instructors and learners, what recommendations emerge for the use of eNVC and how they may lead to deeper learning?

Methodological Alignment: How Artography Suits My Research

To address the aforementioned research questions, the adoption of artography and its inherent reflexive qualities proved to be deeply fitting. This is mainly because artography offered me the expansive space that I needed to explore aspects of eNVC within human communication through creative living inquiry. As Irwin et al. (2018) explain, "Living inquiry does not intend to pursue a particular thought; rather, it expands the thought and its practice to its potential" (p. 40). In my dissertation, the concept of living inquiry opened up avenues for

me to remain receptive to unexpected insights, continually revisiting and revising my understanding of the complex interplay of verbal and nonverbal cues in asynchronous discussions. Through both metaphorical and literal acts of weaving, I delved deeper into overlapping, intersecting, and sometimes conflicting narratives. This methodological flexibility enabled me to unearth nuances and contradictions that a more restrictive methodology might have overlooked. This adaptive, evolving approach was particularly effective in capturing the liminality, or in-betweenness (Irwin, 2013) that often characterizes online interactions, allowing for a more nuanced understanding of how instructors and learners perceive and interpret eNVC in asynchronous discussions.

Additionally, artography aligned with my goal of generating practical recommendations. This aim constituted the essence of the second main research question, which sought to translate findings into actionable guidelines around the use of eNVC in online courses. Artography utilizes a fluid, organic process, which fuses stories, art-making, and experiences into an evolving journey of discovery that continuously informs praxis (Irwin, 2013, Irwin et al. 2018; Le Blanc & Irwin, 2019). In this context, artography views praxis as an ongoing negotiation, emphasizing continual development of understanding through creative experimentation and relating. This flexible, recursive methodology enabled a more organic unfolding of my inquiry. Working collaboratively with the research participants, we identified meaningful recommendations that can guide good practices for stakeholders in online education (see Chapter 8, Part 2).

Furthermore, artography provided an ideal vehicle to evocatively share and represent key findings around eNVC and deeper learning that emerged through participants' narratives combined with my reflexivity. I initially represented these findings visually through a digital

image of my envisioned tapestry, which served as the inspiration and foundation for the actual

tapestry artwork (see Data Visualization and Representation in Chapter 4). Then, I wove the

tapestry rendering itself, addressing both the *art* and *graphy* aspects of artography.

Specifically, I engaged the *graphy* notion through storying and re-storying of the participants'

narratives in prose and poetry, creatively working with the text format to highlight and amplify

their voices (see Chapter 5).

As mentioned in the R for Researcher section of this chapter, poetry emerged as an

extension of my artistic identity, particularly while deeply immersed in academic prose.

Although I neither identify as a poet nor employ poetic inquiry in this study, poetry has served

as an emotional and expressive outlet for me since my early adolescent years. As I have

evolved into an educator and scholar, this long-standing relationship with poetry has similarly

evolved, deepening my recognition of its capacity to illuminate human experiences. In this

regard, Corley (2020) remarks:

> Poems go straight to the heart because they are an extension of the heart. They expand
>
> us and create spaces where both the poet and the reader can be real and honest. Replete
>
> with imagery, rhythm and sound, metaphor, and symbolism, poetry can help us
>
> navigate the complex terrain that lies between the brain and the heart (p. 1025).

Aligned with this perspective, I chose to introduce each research participant using words

and expressions that they uttered during the research interviews, rearranged in the form of a

found poem. As articulated in Chapter 4, I likened my role in this process to that of an art

curator, selectively determining which narrative elements to highlight and artistically represent.

Adhering to guidelines from Patrick (2016), I meticulous composed these poems to capture

emotional nuances while honoring the participants' original language. These artistic renderings

served as spaces for imaginative engagement, inviting a reconsideration of established notions surrounding the role of eNVC in textual communication.

Researcher-Weaver and the Dissertation Tapestry

As detailed in Chapter 6, my interest in tapestry-making was piqued by my desire to delve deeper into a quote by Burgoon et al. (2010), which likens verbal and nonverbal behaviors to strands in a tapestry. Intrigued by the phrase "inextricably intertwined ... to form a unified communication system in which nonverbal signals are closely synchronized and integrated with language to form a complex whole" (p. 202), I sought to understand its meaning. Unfamiliar with the art of tapestry-making, I turned to the World Wide Web and discovered a video about "The Art of Making a Tapestry" in France (Getty Museum, 2015). "*I was completely mesmerized by the image of the weaver sitting at the back of a huge tapestry,*" I noted in my learning journal in October 2020 after watching the video for the first time (see Figure 27). Upon replaying it multiple times, I found myself contemplating the parallels between weaving a tapestry and writing my doctoral dissertation (see Chapter 6). I identified with the weaver, who invests part of herself for many years to bring a painter's artwork to life. Moreover, I saw a mirror image of my research methodology in the tapestry-making process, where the weaver intermittently checks the front of the tapestry, reflected in a mirror, for alignment with the original artwork behind her. Inspired by this revelation, I committed to embracing the role of a researcher-weaver and a deeper learner, interlacing both the participants' narratives and my own into a metaphorical and actual dissertation tapestry.

Researcher as a Deeper Learner

Building on the descriptions of deeper learning discussed in Section 4 of Chapter 2, I see my role as researcher emerging at the intersection of *mastery*, *identity*, and *creativity* (Mehta &

Fine, 2019). More specifically, *mastery* relates to substantive knowledge and understanding of the subject matter. *Identity* considers how learning becomes a core part of the self. As for *creativity*, it manifests when I combine accumulated knowledge and comprehension with my sense of identity to generate an original and meaningful representation of my learning journey.

In this study, I aimed to gain insight into perceptions of eNVC in online learning by integrating interpersonal and intrapersonal systems (Hoven & Palalas, 2016). Interpersonally, I collaborated with participants to co-construct knowledge addressing the research questions, as described in Chapter 4. However, I also drew upon spiritual and emotional facets, metaphorically and literally weaving them into the dissertation tapestry. As Hoven and Palalas (2016) explain, spirituality encompasses a *sense of being*, resonating with my identity. This, together with my artistic identity, influenced my methodological choices, which I detail further in Chapter 4. Here, I focus on the narrative methods most salient to this study.

Narrative Methods

As outlined earlier in this chapter, my dissertation journey began as a blend of narrative inquiry, reflexive narrative, and artistic expressions – a methodological bricolage (Kincheloe et al., 2018) reflecting my multi-faceted identity as an artist, researcher, and weaver. While this project evolved to adopt an overarching artographic methodology, the narrative component remained integral as a key part of the *graphy* aspect of artography. The multidisciplinary and integrative nature of artography highlighted earlier in this chapter allowed for the harmonious infusion of narrative methods into its broad framework.

The beauty of artography lies in its fluidity and openness to diverse methodological influences (Sinner et al., 2006). Adopting an artographic methodology did not require abandoning the narrative ways of knowing that initially inspired my inquiry. Rather, this

encompassing approach created space to expand on narrative methods through artistic

creativity. Embracing artography meant seamlessly weaving the narrative approaches into the

broader artographic framework. Here, narrative found its synergistic place as a complementary

constituent method within the artographic framework, capable of encompassing the influential

power of visual and poetic expressions.

Importantly, my research design and procedures closely aligned with key defining

features of narrative methods as outlined by Creswell and Poth (2018). Their synthesis draws

on foundational work by scholars such as Riessman (2008), who conceptualize narrative

analysis as interpreting texts in storied form, and Clandinin and Connelly (2000), who

emphasize the collaborative and contextual nature of narrative meaning-making. My study

enacted core aspects of narrative research methods as delineated by these and other influential

narrative researchers (e.g., Caine et al., 2022; Craig, 2011; Goldstein, 2017; Kim, 2016). For

instance, as I detail in Chapter 4, I collected stories from individual participants about their

lived experiences transitioning to online learning, honoring the collaborative nature of narrative

meaning-making. The narratives conveyed facets of participants' identities and were situated

within the specific context of their storied experiences. Interviews served as the core data

source, but I gathered other qualitative data such as artifacts to enrich the stories and deepen

my understanding of the participants' narratives. After engaging in the story-hearing and story-

weaving process as described in Chapter 4, I conducted thematic analysis but also crafted

poetic representations to honor the participants' voices. Although not strictly chronological, I

aimed to shape coherent narratives conveying a temporal evolution for each participant. Their

restories shared in Chapter 5, intentionally (re)presented in the first person to foreground their

perspectives, highlight turning points and tensions they faced during their navigation of online

course asynchronous discussions, with a focus on their perceptions of eNVC and the way they impact deeper learning. In this way, the study enacted core aspects of narrative research traditions, while also embracing the creative artographic expression of weaving this dissertation tapestry.

In addition to aligning with defining features of narrative methods, I also consciously attended to the relational dimension that is paramount in narrative research. As Clandinin, (2013) describes, narrative inquiry involves the researcher and participants being "in the midst" (p. 43) of each other's unfolding and interconnected experiences. Similarly, Bergum and Dossetor (2005) conceptualize "relational engagement as the shared moment in which people have found a way to look at something together" (p. 103). I cultivated this sense of togetherness throughout the narrative process.

During our interviews, I aimed to co-construct the stories in a spirit of openness, care, and collaboration (Caine et al., 2022). I then painstakingly transcribed each one to capture nuances that would allow me to re-story the narratives in ways that authentically represent the lived experiences entrusted to me. Through member-reflecting, ongoing dialogue, crafting of poetic representations, and curating first-person excerpts, I intentionally honored the participatory relationship between the participants and myself. I engaged in continuous reflexive examination of my positionality to nurture ethical, humanizing connections. By embracing the fluidity of artography, with narrative woven throughout, I centered the co-constructed, relational nature of the inquiry.

Just as I sought relationality and care in my narrative approaches, these values also shaped my artographic experience as researcher-weaver. Entwining threads of meaning

required diligent listening, reflexivity, and collaboration. Like the narratives, the dissertation tapestry took shape through commitment to deeper insights into my research puzzle.

Chapter 3 Summary

This third chapter, titled Changing Shed, explores my chosen artographic approach, which aligns closely with reflexive inquiry due to its reflexive and relational nature. Building on this foundation, the chapter delves into the philosophical underpinnings that guide my research, emphasizing the intricate complexity of knowledge and individuals' proactive roles in shaping their understanding through unique interpretations of situations. It revisits the central research questions and elucidates how this methodology brings together the power of narratives and the relational, existential, and praxical aspects of reflexivity. This creates a rich, nuanced framework that is compatible with my positionality as an artist, researcher, and teacher.

Drawing parallels with the art of weaving, I position myself not as a passive observer but an active participant in the learning process, continually evolving as a deeper learner. This perspective enables a more immersive, engaged approach to understanding the perceptions and experiences of participants in asynchronous, discussion-based online courses. Therefore, the Changing Shed chapter encapsulates the methodological and philosophical foundations that have guided the design, processes, and procedures of my study, details of which I cover in the subsequent chapter.

ENVC & DEEPER LEARNING

CHAPTER 4

PICK AND PICK

Like the pick and pick, with colors in a row,
My research unfolds, with a dynamic flow.
Each thread a narrative, woven with care,
Weaving a tapestry of insights, rich and rare.
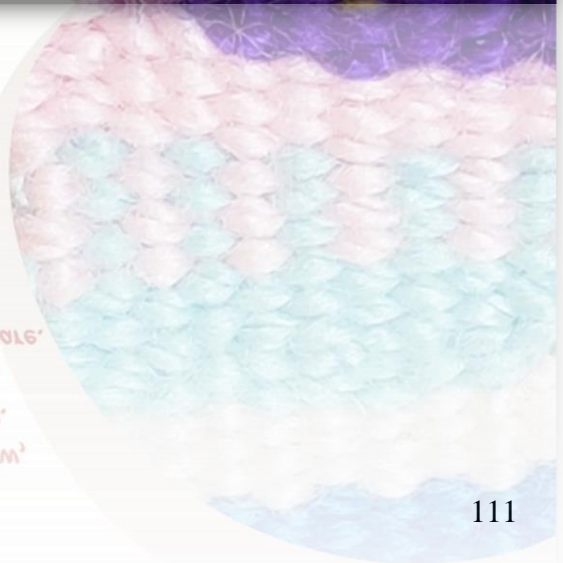
Chapter 4: Pick and Pick

(Research Process)

Titled *Pick and Pick*, this fourth chapter draws direct inspiration from the tapestry weaving technique of the same name. In tapestry-making, pick and pick involves alternating weft colors in successive rows to create vertical columns, intricately woven to enhance the overall visual appeal of the tapestry. Similarly, my study process mirrors the dynamic interplay of the pick and pick technique, as it entailed alternating between explorations through weaving and discoveries through data gathering, visualization, and analysis. This involved switching methods, revisiting stages, and implementing multiple rounds of data interpretation and analysis. These iterative processes resulted in a rich, multilayered body of findings.

In this chapter, my study design unfolds like a winding roadmap, complete with twists and turns that led me to revisit various stages. Building on the discussion in the previous chapter regarding my methodological approach, the sections that follow translate the theoretical frameworks of artography and reflexive inquiry into actionable steps. Therefore, this chapter begins by describing the research participants, the recruitment process, and the inclusion criteria. It then delves deeper into the research procedures, which include tapestry-making as well as data gathering, interpretation, and analysis. To conclude, I discuss the limitations of the study and the ethical considerations that have guided my decisions throughout the research process.

Participants

At the outset of this dissertation, I stated that the aim of this study was to explore the perceptions of eNVC that instructors and learners in higher education online learning consider as promoting or hindering deeper learning through interaction and engagement in discussion-

based courses. The number of participants in qualitative studies using narrative research methods can vary greatly (Creswell, 2012). Additionally, artography embraces flexibility in terms of the number of participants, based on the scope and purpose of the inquiry. This is why my approach aligns more closely with the guidelines for qualitative inquiry characterized by a reflexive nature and narrative methods. Regarding this topic, Lewis and Adeney (2014) clarify that the number of participants in such research can depend on the inquiry questions and "can range from a focus on the narratives of one individual to a larger number" (p. 166). Cousin (2009) further suggests having at least five narratives, indicating that decisions around the exact number depend on the time available for data gathering and analysis, in addition to the research write-up.

Considering my limited timeline to complete my dissertation and the need for more than my own experiences with online education to provide sufficient insights to address the research puzzle, I invited six individuals to participate in this research. To ensure balanced perspectives, the participants were divided equally between learners and instructors, based on the role they were in when I first met them and where they had more experience with asynchronous discussion forums. The study did not aim to compare perspectives but rather to explore the particularities of narratives through the diversity of voices. Consequently, participants were not selected as instructor-learner pairs from the same course. I elaborate further on the recruitment strategy in the next section.

Recruitment

As discussed in Chapter 3, a basic tenet of artographic research in general, and reflexive inquiry in particular, is that it is situated in relationships and community; thus, it acknowledges participatory and collaborative ways of knowing (Lasczik et al., 2021). Since the relational

aspect between the researcher and participants develops over time, my recruitment strategy involved contacting participants from my personal network within the online learning community. This included reaching out to instructors and learners I had met either through social media networks or in person, including individuals with whom I had taken online courses. To mitigate any probability of having my preliminary thoughts or research aims influence their narratives, I ensured to select participants unfamiliar with this current study about eNVC and deeper learning in discussion-based online courses.

Inclusion and Exclusion Criteria

Given that online learning can encompass a range of instructional strategies and modalities, I set the following guidelines for the inclusion criteria:

- At least one year of experience prior to COVID-19 with asynchronous discussion-based online courses, with no required synchronous video conferencing (it could be optional)

- Student or Instructor in discussion-based online courses offered by a higher education Canada-based institution

- Fluent speakers and writers in English

The guidelines for the exclusion criteria are:

- Experience solely with synchronous online education (i.e., video/audio-enabled live sessions)

- Experience with online education only during the pandemic-driven remote teaching

Based on these criteria, I prepared a list of potential participants whom I contacted after receiving approval from The Athabasca University Research Ethics Board (REB) in November 2021 (Appendix A). Depending on the participants' preferences and my relationship with them,

I used various channels (e.g., email, phone, social media platform, virtual meetings) to check their willingness to participate in my study. Upon receiving expressions of interest from six individuals, I emailed the documents listed below to each one separately:

- Invitation to Participate (Appendix B)

- Information Letter (Appendix C)

- Informed Consent (Appendix D)

- Interview Discussion Points (Appendix E)

I also made myself available for further discussions to clarify the scope and requirements of my research. Once they provided their voluntary consent either verbally or in writing, we agreed on the procedures that best worked for each participant.

Overview of Participants

The initial plan for this study was to focus on perceptions of eNVC that participants in online courses perceived either as learners or as instructors. However, during the research interviews, I discovered that all the participants have experiences in both roles, which adds to the richness of their narratives and recommendations. For the purposes of this study, though, they primarily adopted one role – based on the position they were in when we first met and where they had more experience with discussion-based online courses.

Before delving into a brief overview of the participants in Table 2**,** it is important to note that from this point forward, I will refer to them and their narratives using the pseudonyms that they chose for themselves. In keeping with ethical guidelines for confidentiality and anonymity, I have also removed any information that may lead to their identification. This includes the names of their educational institutions, courses they taught or studied, and the names of any other individuals mentioned in their narratives.

Table 2

Overview of Research Participants

Participant			Education Experience		Participant-Researcher Relationship	
Main Role in this Study	**Pseudonym**	**Gender**	**Online Education Beginnings**	**Areas of study and/or Instruction**	**Point of Connectivity**	**First Met in**
Learners	Jasmine	Female	2014	Education; Biology; Adult Education	Peer in an online graduate program	2016
	Casti	Male	2018	Education; English Language Teaching; Instructional Design	Online through a common friend	2019
	Subee	Female	2013	Education; Physical Education; English; Adult Education;	Peer in an online graduate program	2014
Instructors	Kacia	Female	2005	Education; English; Distance Education	Online project collaboration	2020
	Patricia	Female	2002	Leadership in Higher Education	Professor in an online program	2018
	Caitlyn	Female	2009	Adult Education; Educational Policy; Sociology of Education	Social Media	2019

As shown in Table 2, Casti, Subee, and Jasmine participated in this study as learners, whereas Kacia, Patricia, and Caitlyn participated as instructors. Casti was the only male participant, and he had the most recent online learning experience. Since the purpose of my study was to explore the particularities of experiences away from generalizations, gender representation had little impact on findings. In Chapter 5, I discuss more details about each participant, but for the remainder of this chapter, I present the research procedures, design, delimitations, limitations, and ethical considerations.

Research Procedures and Design

Clandinin and Connelly (2000) describe the puzzle in a narrative study as a "sense of a search, a 're-search', and search again" (p. 124). Aligned with this perspective, I saw my dissertation as continuously evolving throughout the process of conducting it. The fluid, flexible nature of my artographic inquiry, incorporating narrative research methods, allowed the research puzzle to unfold organically rather than being rigidly defined upfront. As articulated by Irwin et al. (2021), artography resists set endpoints or outcomes; instead, it embraces the potential within the process itself. This perspective aligns with the focus of reflexive inquiry on recurrently questioning assumptions and remaining open to emerging insights (Lyle, 2018). Instead of seeking certainty, my reflexive artographic approach cultivated a comfort with complexity, viewing inquiry as a continuous negotiation. Through cycles of collaborative discussions with the research participants, the puzzle evolved, with initial questions leading to deeper and more multifaceted queries. This evolution is mirrored in the corresponding stages of my tapestry weaving that became part of my reflexive artographic inquiry. For instance, I set up the loom while finalizing the research framework and saw a parallelism between the loom and the qualitative approach (Figure 13). Weaving my experiences into the weft of the threaded narratives paralleled my reflexive intertwining of my own stories with those of the research participants. The stages of this interwoven dissertation reflected the iterative nature of my methodological approach outlined in Chapter 3.

In line with this approach, the research design followed a flexible process rather than a tightly prescribed plan. Before describing this process, I reiterate my position as a researcher-weaver and a deeper learner taking part in this study alongside the participants, whom I see as partners uncovering data in the form of stories. Additionally, in narrative research methods, the expectation is for the researcher to co-construct meaning with the participants through

restorying and inter-storying. This requires negotiating logistics for data gathering and

verification, personalizing them based on each participant's availability and preferences. With

this level of personalization in mind, I set out on this journey of exploration following a

roadmap that matched my research methodology.

Figure 13

Tapestry Loom Symbolizing the Qualitative Framework

Roadmap

Inspired by learning how to warp the loom, which consisted of vertical plain threads

turned around the loom beams and the warping bar in a U-turn manner (see Figure 29), I

envisioned the research design as a wavy roadmap with loops that took me on this journey by

circling back to many of its stages. Since this journey was neither linear nor straightforward,

the boundaries between data gathering, interpretation, and analysis stages were vaguely

defined**.** Figure 14 shows a brief overview of the flow among these stages with their numbers

as they appear on the roadmap. A detailed explanation follows.

Figure 14

Research Design – Exploration Journey Roadmap
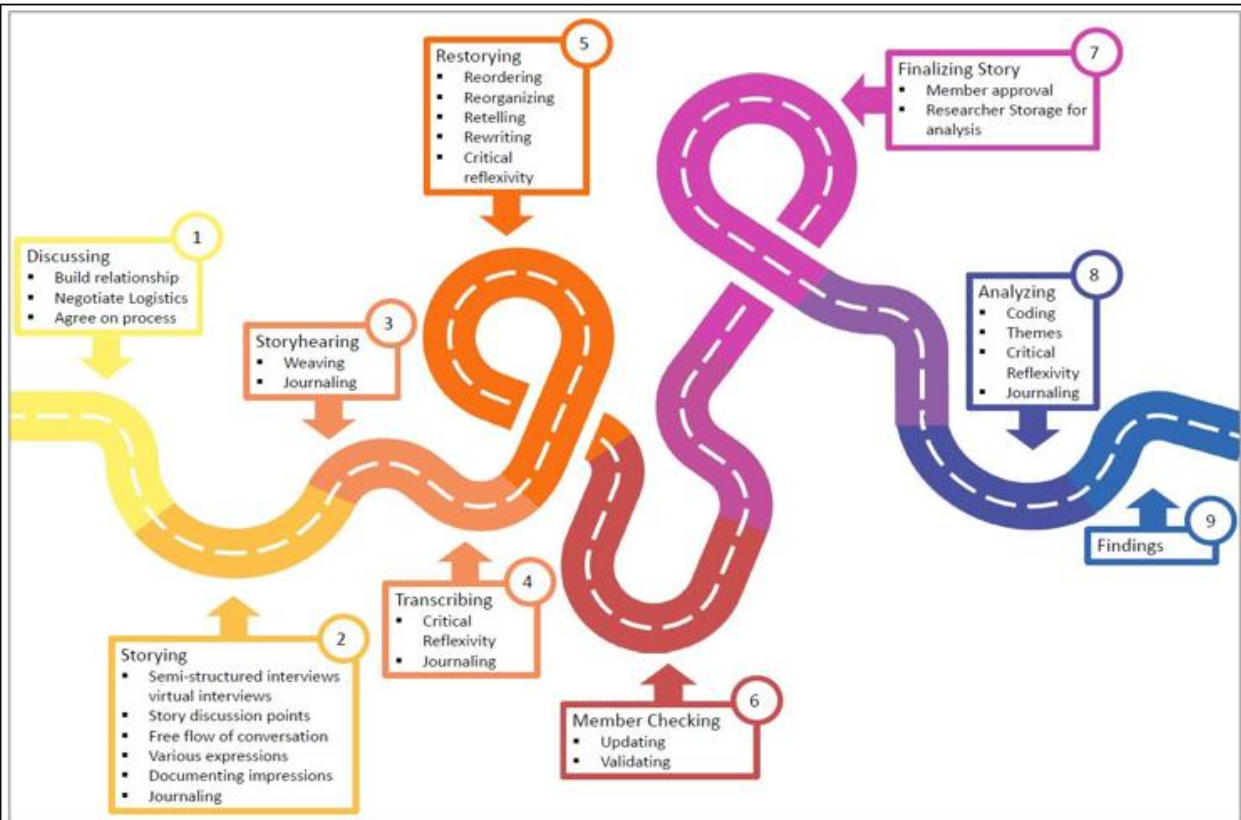
Brief Explanation

Data Gathering. It started with the pre-interview discussions (1) and continued with the virtual semi-structured interviews (2) through an ongoing process of storying and restorying, until each participant approved their final version of the restory (7).

Data Interpretation. It required active collaboration with the participants throughout the stages of storying (2) and restorying (5). This also encompassed the story-hearing and story-weaving (3), which acted as a conduit to translate narratives into texture, shape, and color within the dissertation tapestry. Data interpretation involved attention to nonverbal cues such as facial expressions, gestures, and paralanguage during the transcription of interviews (4). This method was also employed while reorganizing (5) sections of the narratives into various formats, including poetry. It also honored the participants' interpretations as they checked, updated, and validated their narratives (6 & 7)

Data Analysis. Although this stage started formally after storying the final versions of narrative (7), it informally started with the repeated and thorough review of each narrative audio, video, and transcribed text (3-6). It also involved three stages of thematic coding of the participants' narrative (8), accompanied by my reflexivity as I captured it in my learning journal. The outcome of the analysis is a compilation of findings (10) that address the research puzzle.

Data Gathering

This stage started with preliminary discussions prior to the semi-structured interviews. Five participants chose to hold these discussions in virtual meetings. However, Kacia opted to first send written responses to the discussion points, followed by a virtual meeting for further discussion. This approach resulted in a more focused and shorter interview with Kacia, lasting an hour, compared to other interviews that ranged between two to four hours. During these sessions, we unearthed narratives about our experiences in discussion-based online courses.

All interviews took place via Zoom, a video-conferencing platform. To minimize the risk of data loss, I employed a dual-recording strategy using Zoom built-in recording feature and Camtasia, a video-editing software with screen-recording capabilities. Following each interview, I encrypted both sets of recordings and stored them on my password-protected external hard drive.

Interviewing Procedure

At the beginning of each interview, I provided participants the opportunity to ask for clarifications, if needed. I summarized the research purpose, significance, ethical guidelines, and the level of commitment required, ensuring that they were comfortable before proceeding. With their approval, I started recording and asked for their oral consent to be recorded. Recognizing the wealth of information that a name can carry – including but not limited to gender and ethnicity – I asked each participant to choose their own pseudonyms. This step was enjoyable, yet challenging for some. Despite the challenge, all but one chose a pseudonym with special personal meaning, and I particularly enjoyed listening to their explanations as part of our research partnership.

Honoring the relational engagement aspect of my research methodological approach (Caine et al., 2013; Clandinin et al., 2018), I embraced a sense of "togetherness" during the interviews, collaborating with each participant as our narratives unfolded. Guided by the interview discussion points, I allowed the conversation to flow freely, refraining from interrupting or leading the discussion in a specific direction. Occasionally, this approach brought up narratives not directly related to the study focus. However, through active listening, I could redirect the conversation by asking participants to elaborate on specific expressions or situations related to the research questions. I used OneNote[5] to jot down points to probe further, along with brief comments or immediate observations.

Throughout the interviews, I employed open-ended questions, providing ample time for reflection for both the participant and me. As Patricia described in a subsequent, informal discussion, this process was more akin to "inter-thinking" than interviewing. Many participants expressed their enjoyment in taking part in this study, either during the interviews or while verifying the narratives.

My Collaboration with the research participants started prior to the interviews and continued until they approved the final version of their narratives. However, I conducted one formal data gathering session with each participant. These six sessions spanned five weeks, from November 26, 2021, to January 1, 2022. Having almost one interview per week allowed ample opportunity for reflexivity and journaling before and after each interview.

Data Visualization and Representation

The silent participant in all the interviews was the waiting loom, set up in the background of my home office, ready for the narratives to be interwoven into its warp (see

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[5] Microsoft Office digital note-taking application

Appendix F). Originally, my intention was to begin data visualization through story-hearing while freely weaving, with no prior tapestry design in mind. However, soon after completing the interviews, I realized that this romantic idea was more appealing in theory than in practice, especially for a novice weaver. Additionally, I had to select a color palette for the tapestry in order to purchase the appropriate shades and quantities of weft yarns.

Since creating a full-size painting of the tapestry would be too time-consuming, I opted to combine my artistic and graphic design skills to produce a digital image of my envisioned tapestry, based on the participants' narratives and my reflexivity. For this, I used Adobe Fresco[6] on my Windows Surface Pro 8[7] to sketch the tapestry cartoon while reflecting on the narratives from my interviewees and myself (see Appendix H). I considered this sketch as my visual dissertation journal and set the tool to capture a video of the cartoon creation process, documenting this preliminary stage of data visualization.

I subsequently printed two full-scale (70 cm x 75 cm) copies of the cartoon. I placed one on the wall next to the loom and the other behind the warped threads to guide my weaving. My aim was not to replicate the cartoon exactly but rather to emulate it, while staying open to changing any parts of the design as needed.

With a clearer vision of the tapestry design, I used my digital drawing as a reference to purchase matching yarns. As I narrate in Chapter 6, this was one of the most exciting parts of my dissertation weaving journey, marking the moment when a dream began to materialize into reality. After bringing the yarns home and arranging them in baskets by colors and shades (Figure 15), I was ready to embark on my journey of story-hearing and story-weaving.

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[6] A digital drawing and painting application developed by Adobe Inc.
[7] A Windows tablet / laptop with a touchscreen and a stylus pen

Figure 15

Tapestry Weft Yarns - From Dream to Reality

Story-Hearing and Story-Weaving

"*Should I weave facing the tapestry front or back*?" I wondered as I sat at the warped

loom after buying the weft yarns. Traditional tapestry weavers, particularly in European

countries, weave from the back, similar to the image of the weaver from the video that inspired

my dissertation tapestry (see Figure 28). *Does that mean that I should do exactly the same? If*

so, can I recreate a similar setup with a mirror in my home office? Seeking answers to these

questions, I searched the web and watched videos of weaving for beginners to learn about each

option. Eventually, I decided to weave facing the tapestry front as it was easier to set up and

allowed me to see how the narratives were being interwoven while working.

Starting from the bottom up, the first steps included tying Rya knots for the tapestry

fringe. In addition to its visual appeal, I saw the fringe as having a twofold significance. The

first was presenting weft threads in their original condition for others to see, touch, and get a

sense of how I felt while choosing them. The other was symbolic of the narratives that each

research participant and I brought to this tapestry. These narratives resembled fringe threads

because separately, they were adjacent and distinct; interwoven, they evolved into a multitude

of shades and shapes that invite reflection and meaning-making.

Figure 16

Tying Rya Knots for the Tapestry Fringe

With these thoughts in mind, I picked my way through 160 pairs of warped threads,

slowly tying two colored strands to each pair (Figure 16). After completing the fringe, I

listened to the interviews over and over again through my wireless headset while teaching

myself how to weave.

At the onset of this story-hearing and story-weaving process, I did not consider how

much effort it would take. Investing my whole self in it, I spent endless hours weaving every

day – mostly at night – for 167 days, during which I went from "*This is kind of nice*" to "*How*

on earth will I pull this off?"; then "*Maybe I should just leave it midway*;" followed by, "*No*

way! I'll keep pushing forward"; until I noticed that "*I really love this*," and declared, "*I can't*

stop because it's part of who I am right now."

The aforementioned excerpted quotes, pulled from the learning journal I maintained

over six months of weaving, chronicle the highs and lows of my transformation into the

researcher-weaver I aspired to become when I started this study. They also shed light on the

spiral-like movement of deeper learning, which emerges at the intersection of mastery, identity,

and creativity (Mehta and Fine, 2019). Before advancing to the next part of this discussion, I

wish to highlight that this stage has been pivotal in my personal, professional, and scholarly growth —a realization that became clear to me upon completing what I refer to as my (un)finished tapestry.

(Un)finished Tapestry

"Art is never finished, it's only abandoned."

(Leonardo Da Vinci)

Like this quote attributed to Leonardo De Vinci (Boland, 2021), my dissertation tapestry is never finished, and my research journey continues beyond graduation from the doctoral program. To visually communicate this notion, I left the top part of the tapestry unwoven, with the last red thread still attached to the wooden needle. Then I used a pyrography pen to burn "… *and the journey continues*" on one side of the needle **(**Figure 17**),** and a small heart shape on the other side. This symbolizes that I have followed my heart on a path of curiosity about a teacher who teaches from the heart. This path has led me on an ongoing journey of exploration. With the needle still hanging with that last red thread, I *finished* my *(un)finished* tapestry using a twining technique before weaving the header from selvedge to selvedge.

Figure 17

Wood Burning on (Un)finished Tapestry Needle

I am aware of the significant role that many people played behind the scenes in this dissertation tapestry, mainly my research participants, supervisor, and committee members, as well as peers and cohort members. That is the reason why I used the continuous warp above the tapestry to weave a little piece for each, representing the influence they had on my study (Figure 18). This step took almost two months, after which I removed the tapestry from the loom and cut out the other pieces from it.

Figure 18

Little Tapestries: Weaving Gratitude into Tokens of Appreciation

While the tapestry front blended narratives together in relation to eNVC and deeper learning, its back marked the history of its making, with all the messiness of my thinking and learning process. For me, it was as beautiful as the front, if not more. So, I left it as it was; not a single thread cut or altered (Figure 19).

Figure 19

Tapestry Back - A History of Its Making

On the other hand, I cut out all the hanging tails from the little pieces, finished them, and then shared them with the people for whom I made them. I was fortunate enough to present these tiny tapestries to a few individuals in-person, as tears and hugs made up for lost words. These experiences broadened my thinking about the power of nonverbal communication through artistic expressions. My next task was to find the strength and brain power to continue with the data analysis and interpretation.

Data Analysis and Interpretation

After completing the tapestry as a form of visual and artistic data interpretation, transitioning to the linearity of textual research procedures was quite challenging because for the majority of 2022, I was roaming freely within the spaces of narratives, reflexivity, and weaving. Although I had memorized the interviews while story-hearing and story-weaving, translating them into a written format required a shift in thought and practice. Besides, following a research path of first analyzing then interpreting data did not align with my methodological approach, especially because narrative methods are interpretive at every stage (Kim, 2016). After experimenting with multiple procedures, I eventually resorted to starting my data analysis with what I called a three-way process that involved transcribing, interpreting, and journaling concurrently. Although these activities took place at the same time, I describe them below separately for clarity.

Transcribing

"Perhaps because transcription is so ubiquitous and taken for granted, its significance in

the interpretive process is routinely underestimated."

(Poland, 2008, p. 884)

Aware of the interpretive significance of transcription that Poland (2008) underscores in the aforementioned quote, I approached it with attentiveness and care, as it constituted the foundations for subsequent storying and restorying. Therefore, faithful representation of the participants' narratives during transcription was a must to honor their voices. Moreover, a notable distinction in my study is that I had acquired extensive familiarity with the data before transcribing the interviews. This necessitated that I put aside what I already knew the interviewees said, and focus on the actual words they uttered, how they said them, and the nonverbal cues that accompanied them along with what they meant within the narrative and interview contexts. To do so, I first used Otter.ai, a smart note-taking program integrated with Zoom, to automatically transcribe the interview recordings. Although this reduced the manual labor of transcription, it lacked accuracy and compromised the conversation flow and meaning. So, I used these original scripts as the basis for multiple rounds of verbatim intelligent transcriptions, during which I replayed the interviews, oftentimes second by second using playback functions in Camtasia[8], to review and check every word the participants and myself spoke.

Interpreting

A simultaneous and equally important step in this process was understanding and (re)presenting meanings that the participants were giving to their experiences. Since meanings in the communication process are exchanged through verbal and nonverbal cues, I inserted comments in the margins about participants' nonverbal cues and their contextual meaning during the initial transcription process (see Appendix I). Another component of the transcription interpretive aspect at this stage was reflected in the thoughtful text punctuation

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[8] Software suite for creating, recording, and editing videos

and formatting. I also used a color-coded system to mark portions of the transcripts where participants conveyed emotions, revealed positionality, or narrated a memorable event (see Appendix J). This process was accompanied by journaling to document my actions and thinking processes as described in the next paragraph.

Journaling

The reflexive nature of this study necessitates that I document my wondering, understanding, and questioning throughout every step. To do so, I created a notebook in Microsoft OneNote, with tabs and pages for each research component. Using the stylus pen on my surface pro 8 touchscreen, I often drew and scribbled my thoughts when words escaped me. This notebook was constantly open while transcribing the interviews, and each time an idea came to mind, I jotted it down freely. Guided by (Cunliffe, 2016) notions about the existential, relational, and praxical aspects of critical reflexivity, many of my journal notes addressed areas such as:

- How do I relate to this participant and how do our common and individual narratives affect my thoughts and actions?

- In what way is this (event, story, notion, concept, etc.) significant (or insignificant) to the participant and/or myself?

- How do notions shared by the participants align with or challenge my assumptions?

- What new insights do the participants' stories provide me with?

- How do any portions of the narratives disrupt my thinking?

- How does this transform my ways of being and/or becoming?

- Who am I and what kind of a person (researcher, artist, scholar, educator, etc.) do I want to be?

- What impact might the (idea, practice, recommendation) shared through the participants' or my own narratives have on praxis?

Although many answers to these questions ended with "… *something to ponder*", engaging in reflexivity while journaling urged me to expose my assumptions while evaluating their influence on my actions and decisions. Revisiting these journal entries during the write-up stage of my dissertation shed light on my growth along this journey, as I explain in Chapter 6. Before I end this section, I highlight that while journaling and interpreting continued throughout the following stages of data analysis, the completion of the transcription marked the end of this initial three-way process of transcribing, interpreting, and journaling. After that, I focused on textual data as I detail next.

Storying, Restorying

Cognizant of the communicative role of eNVC in written text, transcripts included, I began this stage with a close reading of each script, editing for grammar conventions and making sure punctuation reflected meanings conveyed through speech. Since the transcripts ranged between 21 and 41 pages each, this step generated a total of 187 pages (89,975 words) to sift through for narrative smoothing. Kim (2016) describes this process as "brushing off the rough edges of disconnected raw data", but she also cautions that it "can be problematic because it involves certain omissions, such as the selective reporting of some data" (p. 192). Finding this to be more problematic than expected, I went through several iterations of storying and restorying (see Appendix K), removing portions of interviews at times, summarizing and reordering events at others, then rereading for coherence and consistency.

Throughout this process, I had two goals in mind. The first was sending condensed and meaningful transcripts for member checking. The second was not to let my voice overshadow

the participants' voices. I reached the first goal by reducing the transcripts by 63% through rounds of storying and restorying; therefore, participants reviewed and validated shorter versions of their narratives – approximately 10 pages each. The second goal was more difficult to achieve as I had to report on the narratives. Experimenting with various approaches to reporting, I decided to let the narratives flow as if the participant is speaking directly to you, dear reader. Thus, I chose to (re)present the participants' narratives in Chapter 5 in the first person, preserving their unique expressions and ways of talking. Like an art curator, my presence in these narratives is embedded in decisions about what artwork to display, and how to interpret and arrange it in the exhibition space. Thoughts about rearranging narratives also lead me on the path of creating a short found poem for each participant (see Chapter 5), which they validated and approved along with the interview transcripts.

Coding, Patterns, Themes

After receiving the validated narratives from the participants, I uploaded them into NVivo 12 plus for thematic analysis. This process involved the four basic elements of qualitative data analysis that Kim (2016) summarizes into these four steps (Figure 20):

- Coding processes to attribute a word or a short phrase to a portion of the data

- Finding relations between similar codes and combining them into categories

- Identifying an emerging pattern in each category

- Creating a theme that represents similar patterns (p. 189)

Figure 20

Four Basic Elements for Qualitative Data Analysis (Kim, 2016, p. 189)

Ayres, (2008) posits that thematic coding "frequently begins with a list of themes known (or at least anticipated) to be found in the data" (p. 867). Accordingly, I started the aforementioned four-step process, by creating a basic codebook from the initial codes identified during the storying and restorying phase. Afterwards, I reread the narratives several times, manually coding every sentence either into an existing code, or a new one that I created based on the concept conveyed through this sentence (Appendix L). Once I completed this round of coding, I revisited the narratives and coded them for relationships between nodes that addressed my research questions, especially notions about aspects of eNVC perceived as promoting deeper learning through interaction and engagement in asynchronous discussions. Once I completed coding for relationships, I went through the cyclical process of classifying

the codes into categories/subcategories and identifying patterns among them. This step

involved several iterations of reorganizing, renaming, merging, or separating codes, and led to

the identification of the research themes that I discuss in Chapter 8. Once I identified the

themes, I revisited the narratives again, coding for each theme as a final step in the coding

stage (Appendix M). To conclude this section, I emphasize that data analysis and

interpretation, like any other phase in this study, required me to carefully consider the ethics of

conducting narrative research, as detailed next.

Ethical Considerations

Drawing on other scholars in the field, Kim (2016) remarks that the ethics of

interpretation sometimes require guaranteeing confidentiality at the expense of some of the

data richness in narrative studies. With this notion in mind, I approached data interpretation

and (re)presentation with heightened sensitivity to confidentiality which, at times, necessitated

the omission of portions of the data. Examples of such omissions include artifacts that reveal

additional information about the participants or individuals that they mentioned in their stories

– such as teachers, students, or peers. While this approach may have limited the richness of the

data and affected key details in the participants' narratives, it enhanced their willingness to

share personal experiences and vulnerabilities due to increased confidentiality and anonymity.

Confidentiality and anonymity were also reflected in the way in which I secured and

stored the data and the participants' information and narratives. Since all the data was gathered,

recorded, saved, and analyzed electronically, I encrypted the files in every program I used and

saved them on my password-protected personal computer. I also saved copies of the research

files, including video recordings, transcripts, stories, restories, and the dissertation journal on a

password-protected external hard drive, which is locked in a drawer in my home office. In

addition to the aforementioned ethical considerations, I adhered to the guidelines of the

Research Ethics Board (REB) for this type of research.

Trustworthiness and Credibility

To ensure academic rigor, I achieved trustworthiness and credibility throughout this study by

following the criteria described by Creswell and Creswell (2018, pp. 199-202) for qualitative

research, summarized as follows:

- Use member checking to determine the accuracy of participants' stories and restories.

- Clarify the bias that I bring to the study through ongoing self-reflection and reflexivity
  that I included as autobiographical passages in the research where suitable.

- Present negative or discrepant information that runs counter to the themes, discussing
  possible reasons for such discrepancies.

- Use an external auditor to review the entire project. In my dissertation, my supervisor
  and committee reviewed and checked my research project.

- Ensure qualitative reliability by documenting every step of the research project in my
  dissertation journal.

To conclude this section, I reiterate the notion about the focus in narrative research

methods as being both relational and concerning experiences as lived and told (Irwin, 2013;

LeBlanc & Irwin, 2019). In addition, findings in an artographic study, such as this one, are

textured by particularity and incompleteness (Irwin et al., 2018); therefore, they do not – nor do

they intend to – result in generalizations. However, as with other meanings shared through

storied experiences, it is up to the readers to decide whether conclusions drawn from this study

relate to their situations, and how they may apply under their specific circumstances.

Delimitations and Limitations

The study focused on aspects of eNVC that participants in online courses perceived as promoting deeper learning through interaction and engagement in online asynchronous discussion forums. This defined the research boundaries to online courses that required participation in discussion forums only. Consequently, the research scope excluded synchronous or asynchronous video/audio interactions, as well as delayed-synchronous text messages, blended learning, or the use of social media platforms for learning purposes. Additionally, participation in this study was limited to individuals enrolled in Canadian higher education online courses, with at least one year of ongoing experience with online education prior to the COVID-imposed shift to remote teaching.

However, this study did not aim to recruit participants from the same educational institutions due to its focus on the particularity and diversity of narratives. Seeking such diversity posed a limitation concerning features of the LMS where online discussions took place, which may or may not facilitate the exchange of meanings through eNVC (e.g., timestamps, use of emojis, and special text formatting). Since learning platforms and their affordances were outside the scope of this study, I addressed this limitation by considering LMS features within their individual narratives and settings, rather than as an integral part of the data analysis and interpretation.

Another aspect of my study directly relates to the fact that it is a doctoral dissertation, which needed to be completed in a relatively short period of time. Combined with the research methodology built around trust between the researcher and participants – a bond that usually takes years to build and maintain – I had to recruit participants from my existing network. Although I was careful not to recruit people familiar with my current project or people who

knew each other, drawing from my network in the field of education resulted in having all participants with a background in education as well. Additionally, five of the six participants were females involved in online teaching and learning, which provided less diversity in gender and field of study. I acknowledged this participant homogeneity as a limitation within my study. However, the emphasis on eliciting rich, descriptive narratives helped partially mitigate this limitation, as each story provided unique insights into eNVC in online course discussion forums within that individual's distinct context. At the end of my research, I developed an interest in seeking perspectives from participants with different backgrounds for future research. This could provide comparative insights into how eNVC and deeper learning unfold across varied contexts.

Chapter 4 Summary

Chapter 4, aptly titled *Pick and Pick* draws inspiration from a tapestry weaving technique bearing the same name. Throughout this chapter, I depict the research methods, processes, and procedures. I start by describing how the study unfolds following a flexible design and a winding roadmap, commencing with invitations extended to six participants. Upon receiving voluntary consent from the participants, I conducted virtual interviews to gather narratives, which were recorded and visualized as part of the tapestry cartoon creation process. What followed was an extensive process of story-weaving and story-hearing, in which I wove the participants' narratives literally into a tapestry while listening to the interviews repeatedly. This immersive story-weaving phase involved continuous reflexive journaling to critically examine my assumptions and positionality.

Following this artistic and reflexive approach to engaging with the narratives, I transcribed and interpreted them through rounds of storying and restorying. This was followed

137

by data interpretation and analysis to identify codes and themes that answer the research

questions. Throughout the entirety of the study, I upheld ethical considerations, with particular

emphasis on ethics for narrative research and ensuring participant confidentiality and

anonymity. I also maintained academic rigor by ensuring trustworthiness and credibility

throughout the entire process of the study.

CHAPTER 5

MEET &SEPARATE

Roles exchange, perspectives shift,
Instructors, learners, narratives lift.
In their stories, we meet and part,
A symphony of voices, a woven art.
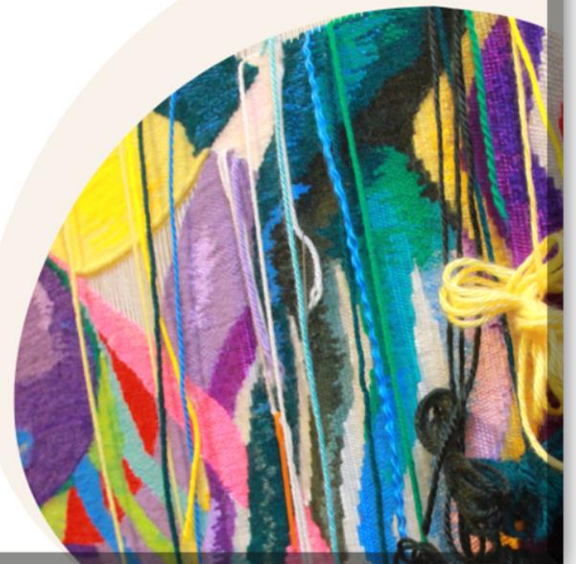
Chapter 5: Meet and Separate

(Participants' Restoried Narratives and Poems)

In this chapter, I present excerpts from the participants' narratives, grouped according to their roles as instructors and learners. As mentioned in Chapter 3, all six participants have experience as both teachers and learners in online education. However, their categorization in this study is based on their positions at the time of our initial meeting. Consequently, Kacia, Patricia, and Caitlyn participated as instructors, while Casti, Subee, and Jasmine participated as learners. I want to clarify that this grouping is for organizational purposes in addressing the research puzzle and does not restrict the participants' narratives to their assigned roles. Instead, this study values their narratives – presented from either or both perspectives – as sources of rich, textured data, helping to unveil aspects of deeper learning that might otherwise remain hidden, especially in relation to the identity aspect of deeper learning.

After this introduction, I provide a brief profile for each participant, which includes information about who they are and how we met. Each profile is followed by a found poem, crafted from the actual words and phrases the participants used at the beginning of their interviews. As discussed in Chapter 4, although I modified these interviews by omitting, rearranging, and formatting certain parts, I did not alter any of the participants' words during the processes of storying, restorying, and poem creation. To honor the authenticity of their stories and to preserve their individual voices, I present segments of their narratives in the first person. This approach allows them to speak directly to you, dear reader. By doing so, I aim to create a dynamic, interactive triangular space that serves as a convergence point. In this shared sphere of meaning-making, you as the valued reader, the participants, and I intersect. This strategy not only enhances the authenticity of the narratives but also fosters a tangible

connection between the participants—who remain the true owners of their narratives—you as the reader, and me in my role as the guiding thread in this intricate weave of knowledge.

Figure 21

Meet and Separate Weaving Technique

The chapter title, *Meet and Separate*, draws inspiration from a tapestry weaving technique where adjacent weft threads move in opposite directions within the same shed, either towards or away from each other. I extensively experimented with this technique while weaving my dissertation tapestry, blending colors, and creating visual effects, including the irregular hatching depicted in the image above (Figure 21).

My choice to use this technique as the title for this chapter is driven by two reasons. The first is literal, reflecting the multiple times the participants and I met and separated

throughout the process of data gathering and verification. The second, on the other hand, carries symbolic significance, representing the areas of similarity and difference in the participants' narratives that I discovered as I delved further into their individual stories. This is evident in the narratives presented within this chapter, which I invite you, dear reader, to explore as a means of meeting the participants through their narratives.

Instructor's Narratives

Meet Kacia

Kacia is an English language instructor whose passion for community learning through technology-enabled pedagogy has come across clearly in our interactions. I first got to know Kacia through her scholarly work, and we later collaborated on the same project. Although I have not met Kacia in-person yet, her dedication to her students comes across strongly in our virtual communications. She firmly believes that students should be "in the driver's seat at all times", a philosophy that aligns well with her enthusiasm for distance education. Since her first exposure to this mode of learning in 2005, she has been a strong advocate, tirelessly working to incorporate it into her students' learning experiences. Her enthusiasm for online learning remained consistent as she completed her own distance graduate studies and eventually started teaching online graduate courses. To convey her early experiences with online education, I have captured her narrative in the found poem on the next page.

Kacia's Found Poem

<u>Learning More</u>

2005

Online instruction

For language learners

Was inexistent

I did it on <u>my own</u>

People thought I was crazy

The students **loved** it

I gave them of my time

And expertise

Willingly

For free

I **loved** it

My students **loved** it

They couldn't get enough of it

If they lacked in an area

I created resources

And the more they did

The more I provided

They were learning more

And I was learning as much as they were

Kacia's Restories

I use the learning space, the platform, the discussion forum, per se, as a place where learning occurs, the students learn from and with each other. They provide feedback to each other and receive it from me and their peers, and the activities. They need this information to move on to the next task. So, it's a classroom; it's a learning space and the tasks are required for the next task. So, the learning from today, they'll need that for tomorrow. So, they are all eager to learn today so that they can do better tomorrow.

If somebody needed a paragraph structure, I created a resource for that particular student, for that particular purpose. And I posted it online, so that students would see it and correct his or her own errors, the other students will see and learn from not only their correction, but from the resource that I had just created and posted. And it just snowballed in an energizing, purposeful, targeted way of learning. And the community strengthened itself as a result.

I was always there, of course, and they knew I was going to provide feedback. It's my job, and it was a pleasure for me to provide feedback, to see their learning growth, but they would correct each other's discrepancies – I don't call them mistakes, I call them opportunities to learn. So, they would engage with each other's opportunities to learn. No, they didn't wait for me at all; the class is open 24/7. The mom that just had a baby and have to do a two o'clock feeding in the morning, she was there at three am, I get up very early, I would sometimes see her there, or just miss her. When she came back later in the day, she would see that her paper had been marked, viewed, suggested,

whatever the case may be, and then she could move on for another two am feeding with more growth and interaction, not just from me, but from everyone in the class.

This particular class we're talking about is language, right? So, suppose they had to do a listening and answer questions. I would provide a model of a short clip of a listening task with questions and a way to answer the questions. I'll provide the model so they wouldn't waste the time thinking of all the words to put in, and I ask them to visualize the words because it's easier to visualize, for some, than to write.

The last class that I taught, one student in particular, she was actually the very first one to present her project. Before the fifth module, she said, "Can you open module five? I want to start my project". So, at the end of module four, she presented her project, and she was the model for everyone else to present the following four weeks. So, she interacted with everyone in the class, she found it necessary for her. And of course, her learning just went up leaps and bounds because of that. She was the one that interacted with everyone and caused the community to keep on going.

She made an effort to view every single resource I posted, whether she needed it or not. She asked a ton of questions. In my question and answer section, I had 450 questions by the end of the program of studies. And that's a lot of interaction. That's not counting the assignments.

Everybody asked questions, but she asked many. If I corrected something, and she had difficulty grasping the rationale behind the correction, and that part I liked because even if the sentence was correct, I would offer a suggestion, because if you're already good, you can become better. And if you're better today, you can become even better tomorrow. So, I always poked a little bit of pizzazz into their sentences or stories or

answers. And she liked that. So did the other students, but she always questioned, critical thinking – "Why was it this way? Could it be that way? And of course, those are questions that we learned in my classroom, the different types of questioning, hypothetical statements. So, she applied in her interaction the very language structures that we were learning in the classroom.

Figure 22

Bundles of Weft Used for Weaving

Meet Patricia

Meet Patricia, an accomplished scholar and full-time online instructor with a background in educational leadership. I met Patricia in-person a couple of times before taking two online courses with her. As an instructor who cares for her students' emotional and intellectual well-being, Patricia describes her teaching philosophy as practice during the interview, stating: "Always sort of that pedagogy of care, I think, is something I believe in. You don't give students marks they didn't earn, but you certainly make them feel that they matter. Their lives matter. Their challenges matter." The visible enactment of this pedagogy of care is woven throughout Patricia's narratives, which she shares with thoughtful and critical reflection, as shown in her found poem that follows.

Patricia's Found Poem

<u>I Think</u>

Of a voluntary
Synchronous session
Where almost everybody
Was coming all the time

It could be they were
Just that kind of group
That's a possibility
But I don't think that was it

I think

It was a decision
To introduce something new
That brought them together
A discussion forum

I think
That was part of it

I think
It was also my confidence

I was more confident
In teaching this course

I was teaching it
for the past few years

And

I was starting to really understand
How students can
learn and interact
with each other

And
How important that is

Patricia's Restories

In one of my previous classes, the same course, there was a group of three, and they did not know each other beforehand – if they did, not well – and they were working together in the course. I knew because they told me that they were working behind the scenes. It was obvious that these students had gelled. There was a really tight support there. They felt comfortable critiquing each other, but they didn't feel – at least not at the outset – comfortable doing that in front of people because maybe they would seem too critical. So, they devised a way, and other students as well, but not as tightly, but when students did that, there was a sense of camaraderie that was built in the course. And that really helped bring the class together.

One person in the group, by her own admission later, was a little uncomfortable with feedback. Later, she revealed that the asynchronous connections they were making with each other really helped her. I think I saw that interaction and interpreted it as this group was getting quite comfortable with each other. The feedback was more authentic. It wasn't like, "Oh, you did such a wonderful job!" It was more like, "Maybe if you do this, or have you thought about that?" The authenticity of their interactions was a signal to me that they had become comfortable with one another.

Also, by choices of words and how they put them together. There are messages that are conveyed. So, I could feel and see that they were indeed a team, thinking and working together asynchronously.

They all did extremely well. They don't get a mark, but obviously, some people's work was more deeper, more reflective, you know, more learning. They seemed to be on the same page, not with the content, but with the *what this takes*. They seemed to be able

to reflect a little more deeply about the *why* and the *how*, and what it meant for learning in new contexts. This was a competency they acquired during individual and group thinking, and while interacting asynchronously. They also reflected on how they could transfer that learning. That is what it seemed, but in the synchronous session, they verified what I was thinking and what I could see and feel.

This engagement happens asynchronously perhaps because they have time to reflect on the feedback they have received. I've seen it in more than one case, but that one was the strongest, the one I described to you. But they continue to provide feedback to each other, then it seems to me that their bond is stronger; there's a bond there, and learning is probably deeper because of it. This is a form of dialogic "conversation" that is often done asynchronously.

I think about regular discussion forums, and they can be very interactive, but sometimes they are superficial, probably less so in doctoral courses. But number one, how do you, as an instructor, interact with them in a manner that maybe models the way that you want them to interact with each other?

If students are engaging with each other in a discussion forum, and you, as the expert, jump in too early or too often, I feel they're going to think, "Look, if Dr. Patricia is going to jump in and correct us or tell us the right answer, then maybe we just won't bother". Their engagement, their peer-to-peer engagement is almost being interrupted. Sometimes what I do is that I come in, and in the discussion box, I type both their names (like Rima and Patricia's conversation), and I say, "You're really having this great conversation, I'm just wondering what you both think of this", then I jump back out again and let them go on. There has to be a balance.

I find that sometimes students get really upset if they're posting something, and nobody is commenting. Nobody is going back in there and saying, "Well, that's a great point!" I think that makes them feel very left out. I had some feedback in a master's course where the person said they hated discussion forums, waste of time. And I'm thinking, "Oh, gosh, not everybody thought that way". But one of their points was, "I post something, and nobody responds". So, I don't know what to think. So, one has to be very mindful of the *message* that this conveys to a student, to any of us, who post something, and nobody replies. Now, if there's a lot of conversations back and forth, you don't expect a certain person to reply every time. But if I see that somebody posts something, and nobody jumps in and *acknowledges*. I think they feel left out. They feel like, "Is what I've done any good? Nobody wants to reply because they don't know what I said?". So, the absence of response, or the absence of feedback too, sends a message. And it could be one of, "I'm not even gonna bother to reply to you; not even worth my time".

There are times that I will jump in, and here's a confession: every now and then, when I might know somebody in the course from another course, and I know I can trust that person, I have dropped a message to them, and said, "Do you mind giving some feedback to people who haven't gotten it?" Knowing that they wouldn't mind I know, that's probably not right, but I feel that people feel undervalued.

I had this one person in my class who said to me, a number of times, how grateful he was for my understanding. Then a month after the course, he sent me a card. So, why did he think I was empathetic? Well, he told me about his situation, and I shared with him my own similar experience. The card he mailed to me conveyed his gratitude. I think

that sharing my experience gave him permission to take the time he needed away from the course. He eventually completed the course and sent me a heartfelt card.

Figure 23

Weaving Narratives - A Tapestry in the Making

Meet Caitlyn

Meet Caitlyn, an enthusiastic instructor and early adopter of online learning, deeply interested in adult education, curriculum design, and social justice. As a researcher and policy "wonk", she embodies a pragmatic approach to knowledge mobilization. This characteristic is equally evident in her commitment to the continuous refinement of her online instructional strategies. My initial connection with Caitlyn was formed through social media, and it was deepened through several in-person and virtual meetings. These interactions enabled me to discover Caitlyn's inclination towards online teaching and learning, a preference she held even before such methodologies became widely recognized. During the interview, she justifies her preference, saying, "I think what I've heard is a nice voice in my writing; it's quite relaxed and a little bit funny, and that still has a lot of content in it. … I don't think I'm ever quite at ease in the classroom face-to-face, but I'm fully at ease online." These personal revelations, combined with her interests, have led Caitlyn down a path of curiosity about online education, as (re)presented in her found poem on the next page.

Caitlyn's Found Poem

<u>Intrigued</u>

I guess
Just a curiosity
I liked the creativity

The question
How to make good quality online education?
Intrigued me

It was still so new
A lot was floating around in the ether
That "online sucked"

In a lot of cases
The quality of online education was poor
With high dropout rates

I was reading on adult education
I was reading on private colleges
I was cognizant of the access issues

I could just **see** it becoming
A bigger part of online learning
Also good for social justice purposes

That fed into my interest
There's just a lot of creativity too
It seemed like a challenge

I was furious that the online space
was dragged down reputationally
But you could just **see**
Quite early
The writing on the wall
That it was gonna factor more and more
Into higher education.

It just intrigued me
I guess.

Caitlyn's Restories

I only did one course online as a student myself, and it was awful. Part of it was the content, but also it was very rudimentary, very little interaction; so, it wasn't particularly rewarding. I was working for a Master of Educational Leadership program that had a cohort, and the rest of the course was designed online. That's how I got familiar with discussion forums. So, when I started teaching myself in my doctoral program in 2009, I felt discussion threads could add to the class, even though it was a face-to-face class. So, I was probably one of the few people at that time trying to use something a little more blended. By 2012, I tackled my first fully online class.

Because I enjoy reading and writing as much as I do, to interact with students in that setting I found quite rewarding because there's just a level of substance in that dialogue in the discussion threads that I've generally found harder to simulate or create in face-to-face classroom. I was quite engaged in what students had to say and respond. I was also writing a lot of the modules for the course, and just realized that I seem to have a bit of a knack for making the content more approachable, and that students seem to appreciate it. So that's probably what hooked me; just realizing that it was a kind of interaction that seemed to tweak with my own strengths.

I'm quite a lateral thinker and quite an abstract thinker, and I realized very quickly through my teaching that most people don't approach learning that way. You have to move from the concrete to the abstract. I realized that designing online was an opportunity to sequence questions and activities where I had the time to think about them and almost test them.

What I look for is: Did people wonder, and get disrupted, and ask questions? Were they also finding connections to things they already knew from previous experiences? Of course, the downside of the experiential mode is that they might not move past that. A lot of times, a few people say, " Oh, well, I had this experience, and this thing happened to me", and then the push is, "Okay, so how can you connect that back to the reading?", or "How did your experience and the reading inform each other?" So just really pushing, pushing, and thinking. I spent way too much time on the forums too, going through and looking at their responses and questions systematically.

I was cognizant that you can overdo that role, and that you want for real interaction and engagement. You want students to learn to critically question each other. So I started being really explicit by giving a lot of sentence starters. And I just do lots of encouragement right at the beginning of the class, say, "You know, this is what engagement looks like, if you're stuck on how to respond to somebody, here's some prompts you can use." So I had a list of about 10 sentence starters to prompt them to ask the types of questions that I want to ask.

But this also comes to what's happening at the program level. For the most part, I think faculty, whether adjunct or permanent, are rarely operating from the same sort of philosophies and understandings with online education. And if you want to do a good job with students, and adult students are naturally quite engaged and motivated, but for undergraduate students, if you don't have faculty on the same page setting those norms and modeling those expectations and good skills online, you've got zero assurance that students are going to be developing that over time. And that's problematic because there's only so much you can do in class. And in my experience, it was quite interesting

because they were coming with some understanding of how the forums worked and what was expected of them in terms of engaging in the forums, but also lots of discontinuities and questions because faculty would have different expectations of what they understood to be engagement, they would have different degrees to which they articulated those expectations.

I can give you a really concrete example that just came in with one of the universities I teach at, the classes themselves were set up in a very rigid, modular way. So, no real opportunity for instructor engagement and leadership. When I first started the class, the students had this expectation that they come in, and they write their post, and they get a point for their post that week and they get points for the responses. I just didn't want to cultivate this hoop jumping mentality. Make a post, get your point. It's like you're a chicken pushing the button, and you get your little pellet. So, kind of offended my sensibilities, and I didn't want to encourage their thinking that way. So very early on, I started grading modules differently and just telling them straight up, "I do this holistically, and here's why." I've gotten more or less pushback from doing that for the students, because they don't want to have any responsibility for the overall architecture of their engagement in the class. Also, marking individual posts is extremely difficult for quality.

What I find interesting is when I read the responses and feel that the reading, the questions, and just the group in concert is generating something cool, and sometimes, right out of the blue, like that time when I used an article on spiritual engagement in one of my classes. Even though it was tough and very philosophical, people were just all over it. There were so many questions and wonderings about it, and I was like, "This is

awesome!" I guess it's mainly that combination of: Are they actually dialoguing? Are

their responses varied? Are they answering each other's questions? (which is incredibly

tough to achieve in the forum without the carrots and sticks).

Figure 24

Interwoven Perspectives

Learners' Narratives

Meet Casti

Meet Casti, a learning and development specialist with a professional background that

includes teaching English to internationally educated adult learners, particularly newcomers to

Canada. During our interview, Casti reflects, "I'm happier when my students are happy. You

know, when they have that better learning experience, even if they don't remember or catch the

actual subject matter. For me, the first one is more important because it creates a lasting

effect." This "lasting effect" of the learning experience holds the spotlight in the discussions

that Casti and I share during our virtual meetings, which commenced after a mutual friend

introduced us via email. In these discussions, I have learned about Casti's transformative

journey with online education, a journey that took him from "walking around with no road at

all" to becoming an online educator himself. Casti concentrates his narratives on the start of

this journey, which I (re)present to you through the found poem that follows.

Casti's Found Poem

Path for Me

For me
It was a necessity
Logistics

It was 2019
I was working full time
And I was doing my Masters
Just the commute itself
Takes a long time

Frankly
Convenience
Was the main reason
Why I took online

Initially
I didn't know
What to expect

Really
I was literally
Just walking around
With no road at all
No path for me

Luckily
Our professor
God bless her
Was very nice
Very kind

At that time
Things happened
To me

They were devastating
She was very, very
Understanding

Really
I feel it helped
Because I didn't have
Any path
For me

Casti's Restories

Initially, I really didn't know what to expect. I was literally just walking around with no road at all, but our professor, God bless her, was very nice and very kind. Some things happened to me during that time. They were really devastating. She was very, very, very understanding and fast in response. From the get-go, she laid out expectations for us. It's actually quite fun now that I think about it. She posted this game, like an icebreaker to get everyone to know each other. She was trying to form a community.

This was my first fully online course. I don't even know what my professor looked like. My perception is that she actually listens, because she would respond to very specific things, and she would build on what you said. And she seems to be very curious, asking more things. Also, just when messaging for questions, she's very prompt. I can't even remember the words that she uses, but there's a lot of empathy, like saying, "Oh, I completely understand this and that."

I remember this one time in December, something terrible happened to me personally, and I had a paper that I needed to submit. But truly, because of so much anxiety I couldn't even move. That's how bad it was for me. I just had to share that with her. I asked her if she can give me an extension to submit my final paper, at least a week. She responded promptly, and she was very understanding. She was like, "You know what? These things happen in our lives. I completely understand." And she even gave me resources for anxiety, which I think was a big plus. So, she's not only listening to me, but she's actually there to help me because she's giving me these resources. So, number one, she's actually accepting what I was asking, then on top of that, she doubled down and,

actually, brought me to the people that I needed to talk to. That was a culmination of everything that I thought about her.

Having those experiences helps you become a better educator, because sometimes, we have our blinders on as well. But this just reminds you of what the students are going through. At times, life happens, and for me, I was like, "Okay, I want to emulate. I want to become that kind of teacher who can make a change." Well, you change people's lives, and this makes a difference. Really. It sticks.

Also in my first course, I didn't know the expectations of how to talk with other people. For some, this was not their first time in an online setting; they knew how to respond for some reason, and I literally just copied their format: the way they wrote, the way they replied, their enthusiasm, and sometimes the time they responded. To be honest, right now just thinking about it, it wouldn't be as effective if you didn't have those students, if you had students like me, who didn't know what to do, because when you don't know what to do, you probably won't properly engage. These people were, I would say, just enthusiastic.

Enthusiastic. You know, the tone when they write things. I don't know how to explain this. It's like putting exclamation marks, becoming curious when you say something, and sometimes emoticons, like punctuation. For me, those are secondary. The primary factor for determining enthusiasm are the questions, and this is with our professor as well. You say something, but they pick up small details on what you said and build on that by asking questions, and also just the time that they put. It's that way of responding. For example:

"Hey, Rima, how are you?"

"Good. You?"

"Good."

That's it!

No, they're not like that. They're more like, "Oh, good, and what have you done?" So, they're really trying to engage with you. You feel they want to talk more because they're asking questions. They're on point when they're asking questions, not just *asking questions*. They have depth when they ask questions. So, when I see that they're enthusiastic, it's like, "Oh, this is how I should conduct myself", and I become kind of like them because it's human nature, right?

So, I would read, and I would try to pick up what they've said, as well, and try to ask questions. And it's interesting because some actually post their photos. It was the second or third week when people were actually showing their photos. I think that really helped the interaction. Putting a face behind that name. It definitely spurred conversation again. Now that I'm remembering it, someone posted a photo of herself somewhere in South America, and then a couple of people have been in that area. So, they're like, "Oh, was this your first time? How many times you've been there? I was there two years ago, three years ago". They kind of got their own discussion. Then I posted something in Japan. and they started asking, "Why Japan? What did you do there?" And things like that. For me, when people ask questions about that, I'll be happy to just share.

Whereas my second online course was different. There wasn't as much social interaction, but there was more like building things to talk about a specific topic. Some of the students were too enthusiastic in terms of their responses – theirs were too long and then some people would add on to that, which is not good for the other students who

maybe don't really have much to say. And I think I had that experience where I was like, "Do I have to add another paragraph here or not?". And then, finally! Good timing from our professor who messaged that weekend saying, "Just a reminder, when you're responding. Succinct. Maybe try to add two points only, not five points". And then for me, it was like, "Thank you for saying that!"

Figure 25

Deeper Learning and Story-Weaving

Meet Subee

Meet Subee, an experienced online instructor whose career predates her academic journey in a fully online Master of Education program. During our shared time in the program, I was captivated by Subee's articulate and thought-provoking forum posts where she adeptly tied class content to her professional experiences as an educator in remote First Nations communities. As Subee reflects on her time in the program during our interview, she notes: "In my first year in the master's, I had good Internet. So, there were no problems that way. Not technical issues anyway. When I went up for my second year of my master's, it was all technical problems. That's what really stumped me most of the time". Observing these challenges, along with Subee's resolute efforts to overcome them and excel academically, inspired me to invite her to narrate her experiences with online learning. She begins this account with a narrative that I (re)present in the found poem that follows.

Subee's Found Poem

<u>Overwhelming and Exciting</u>

I was in Central Alberta
I was an online instructor
And an online master's student

My first experience online
The very first course
I found it really
Overwhelming

The very first six weeks
Just *floored* me

I thought this was kind of strange
Even though I was teaching online
I hadn't experienced it as a learner yet

I hadn't been a student
For at least 30 years
35 years

The whole thing
Was overwhelming

I found it strange
Not to hear a voice
And just see pictures
Of people

It was exciting
Very exciting

I don't remember how
I thought that was exciting
Because until the second course
I was so overwhelmed

Subee's Restories

The whole thing, just the experience was overwhelming, not necessarily the course or the professor. But by the time we hit the second course, I think everybody was settling in. The initial shock had worn off. And the instructor of our second course was very hands on, not overly, but her voice was in every single thread. And I thought, "Wow! This is great!" And it just inspired me to write more, and to respond to more people, because I knew she would be in there reading them. You *knew* she read everything.

There was one guy, his language, his words would be difficult, and his posts were long. After reading something that I had to focus so much on, I thought, "Nope. I can't do this." My mind would just drift off. I was more likely to respond to the ones that were short and sweet and very well-put together, and if there was a flow and it resonated with me.

I think that's why they put a limit on our words: 200 to 300 words. I think that would really help the discussion continue because very wordy posts that you got lost in the verbiage, they just turn you off. I mean I could read them, but I had to read them two or three times. When you're going through a program, there's so much reading, so much writing, and so much of everything else going on that you really don't want to focus on one post and have to read, and reread it, and reread it to understand it. It has to be well-written, good flow and within the limits of the words. I think the last course that we did, I just skipped over the ones that were too long.

The keeners sometimes bother me because when I took the courses, I'm one of these people that need time to reflect on things. I really do. I need to mull it over and over in my head, over one or two days, and then I can start talking about it. That's why

asynchronistic learning *really* was good for me. It's not very good for a lot of people

because you have to be very organized. Stick to your schedule. But the reason why it

works so well is because I'm really lousy in a classroom, I can't think on my feet. Maybe

I'm just more reflective, and maybe I'm slow in the head. I don't know. I just needed

time to think about it.

The one that really made me slow down was the research course. That was all new

to me, nothing I had seen in school up to that point. I had to study very hard on that

course. I tried. It felt like it was over my head, but I was extremely engaged to learn

about the different research methodologies - totally engaged. I participated in

discussions, at a reasonably academic level.

The other one might have been the one where we learned about Kolb's cycle.

That's the one I keep going back to. And it surfaces in my head all the time when I'm

trying to learn something new or teach something new. That *whole* cycle is in my head.

It's possible because it was visualized for us. That helps. And that's why as a teacher,

when you present things, you present them in different ways - diagrams, pictures, words -

it's usually a combination of all that. And then you have more of a chance of it sticking

in somebody's head.

I liked the evaluation course too where we had to do our eportfolio. That was

amazing, I learned so much in that because I'd never really reflected on how you learn to

learn. I remember it being in the summer and because it was a very hot, and I was in my

office, I had the door to the outside open so I could just look out and see my garden. So, I

was longing to be outside, but the outside kind of came to me because my door was open

all the time. And so that was part of it. And then just how hard I had to work at the e-

portfolio, going through every single course and picking out something that was valuable information that we learned and how we learned about it. I found that very difficult because I never before really reflected on what my thinking process to learn was. And that stuck because I took away from what I learned in there. It actually got to the point where it really burned me out.

In another course, after our live presentation of a group project, I couldn't use my internet for three days because it completely drained my system. I was so frustrated with the connectivity. I couldn't work at work; I couldn't send emails; I couldn't do anything because everything was down. Then in the courses, I had such a hard time. If it was a synchronous course, it wouldn't have happened. I just wouldn't have been able to complete it.

But other than that, the actual courses I loved except for one where the instructor got us all really mad. I think she was telling some of us, "You're wrong", or "You're not getting a point", or something really blunt like that. I just remember one of our peers being so upset, almost to the point where she was rude in her interactions in the posts.

My last paper, she was *really* critical and marked me down. She gave us all very low marks. Until then (approx. 10 courses in) our averages were over 90, and we were consistent in every course. And then with this course, wham! I remember us being upset at how she judged us very harshly. I mean, wouldn't they look and see how everybody else has judged us? Because that was near the end, there was only one or two courses left.

Meet Jasmine

Meet Jasmine, a dedicated secondary teacher who "values following through" in her teaching and learning devours. When I met Jasmine in our eighth course in our

master's program, I was impressed by her authenticity and ability to express complex

ideas with ease. Through the discussion forums, we discovered that we live in the same

city, so we had a few in-person gatherings with other peers for group projects and

socialization. During the interview, Jasmine reveals the reasons for her academic success

saying, "Education was kind of that goal to overcome because I don't have the capital

that other individuals have. So, that meant I had to make sure I fulfilled all requirements,

regardless of how tedious they are." Armed with this motivation and determination,

Jasmine graduated teacher's college in 2010, and started her teaching career in 2011.

Three years later, she decided to do her master's fully online. The found poem on the

next page (re)presents some of the factors that influenced her decision at the time.

Figure 26

Deeper Learning and Story-Weaving

Jasmine's Found Poem

How Do I?

I wanted to do a masters
I wasn't sure when

2014
I started looking
I got into an in-person program
Because of where I live and work
It was less convenient
Timing-wise

I was doing extracurricular activities
I had a massive social life
I was traveling

How do I preserve my lifestyle?
How do I preserve my work?
How do I preserve my time?
Also pursue higher education?

I started researching
This fully online university came up

A friend of mine
Her experiences at this university
Were really great

I was intrigued
By what they were offering
With the program description

I could do it
From the comfort of my own home

I could do it
On the weekend

I like the flexibility
I know when the deadlines are
I can map them into my day planner
I get to virtually chat with people
From all around the world

That's interesting!

Jasmine's Restories

What I had in my mind was not what actually happened. The first semester, the first course, I enjoyed it, but I didn't enjoy it because I didn't realize how much work it was with the assignments and the discussions. I actually loved the discussion part, but I also found it to be very time consuming because I didn't want to just give a response for the sake of giving a response, I wanted to really engage with what was being discussed.

For the first few weeks, I barely got any feedback. So that really impacted my perception, and I'm like, "Is it because of my name? Is it because of my ideas? Are they just not good enough?" Then there was like a racial thing that came into it because I was the only ethnic sounding name in there. So, I wondered if that played an impact. And then I'm like, "No, it can't be that; it's just because I'm not posting early."

I came to notice that when I'm joining in later, people could have already established connections, they could have taken courses prior with each other. So, they were more familiar with one another already. It could have just been a comfort thing, too.

I think where the instructor did impact how connections were made was in my research instructor. He was phenomenal. He was an example of someone who was really engaged with his students, and he made everybody feel included. He made sure to respond to everybody. And I *loved* how he would take pieces of other people's discussions and incorporate them in his own responses, and make everybody feel seen and heard. His posts were timely. He's an example of someone that did shape the environment for me. That's why I was so adamant on having him be my supervisor.

During my first courses, there were outside stressors impacting my experience as well. And I think I was imprinting those on to the online experience. I didn't anticipate

how much energy this is taking from me because I was inexperienced with discussion

boards, and a lot of my weekends would be taken up by me catching up. In addition to

the stuff that I had to do for my job, I had a lot to do for my courses. Plus, I was dealing

with a medical condition that was being exacerbated by the extra burdens and pressures.

Once I took all that away, and once I was in the summertime, I was like, "Okay,

this is doable. I can do this. I actually enjoy learning this."

My exposure to the research methodology instructor also came in the summertime.

I think that was the toughest course for me to wrap my head around, but it happened

when my perspective started to change because I had the time. I wasn't stressed out as

much as I would have been normally, but I also took the time to really immerse myself in

the experience and cut all the other extra noise out.

I think his behavior was one of mutual respect. I could picture him sitting at his

computer reading these posts. He is genuinely present in the moment. There's no

distraction. He is genuinely reading every word that I was writing. I could actually

picture him talking to me when he was writing back. I loved how he framed his

responses, "Oh, these are some really great points you've made," so, there would be

some validation that he would provide, and then he would also say, "however, here's

something more to consider." So that, I think, was very essential and crucial to

developing that deeper learning. He wasn't just saying, "Oh, great work, great work,

great work." He was also challenging you to take it further, in a *respectful* way, in a way

that didn't make you feel that you missed something. It wasn't like a criticism. It was

constructive. It was *respectful*, and it was in a way that still celebrated what you had to

offer. Another lesson I took away from that specific course is that it is not about the

quantity, it is about the quality. His responses were so concise, and that was the first time I saw in higher learning you can make an impact with just few words. It doesn't have to be this long-winded speech.

The way my research methodology instructor facilitated influenced how I conducted virtual school. I became an instructor for remote learning last year. So, when students had questions, I made sure I would respond to them in a very timely manner. And I was timely with the feedback for their assignments. There was one particular class because of how I conducted myself, and how timely I was, and I was honest, and I was real. Those are the things that I took away from my online learning experience and applied in my own setting to the point that one of my Grade 11 class actually took off their camera, and they called up thank you notes to me at the end of the semester.

The challenge I had with remote learning is that I did these things, but not every teacher did that. A lot of them were lackadaisical. It wasn't consistent. Absolutely!

Chapter 5 Summary

Chapter 5, bearing the title *Meet and Separate*, focuses on the narratives of the research participants, categorized according to their roles as Instructors and Learners. Kacia, Patricia, and Caitlyn are the instructor participants, and Casti, Subee, and Jasmine are the leaner participants. While all six participants have experienced both teaching and learning in online education, their categorization in this study is based on their positions when we first met and serves organizational purposes to address the research puzzle.

In this chapter, I provide a brief profile for each participant and a found poem created from their interview excerpts. The creation process involved rearranging and formatting certain parts of their narratives without altering their actual words, aiming to maintain authenticity and

to honor the essence of their stories. These narratives and poems, presented in this chapter, aim

to invite you, dear reader, with an opportunity to meet the participants and explore their

experiences regarding eNVC in online course discussion forums.

CHAPTER 6

ENVC & DEEPER LEARNING

PEERING THROUGH WARP THREADS

Peering through, insights caught,
Mirrored self, knowledge sought.

Through tapestry's warp, reflection's found,
Of self and others, connections profound.

Epiphanies birthed, minds unvexed,
In silence they speak, no need for text.

Chapter 6: Peering through Warp Threads

(Reflexivity through Weaving)

The title of this chapter draws inspiration from The Art of Making a Tapestry video (Getty Museum, 2015), where the weaver occasionally peers through the warp threads at a mirror facing the tapestry front (Figure 27). I chose this title because of the resemblance between the weaver's actions and my own process of reflexivity through weaving.

Figure 27.

Weaver Behind the Loom Looking at Mirror between Warp Threads

Note. This image is a screen capture of The Art of Making a Tapestry video (Getty Museum, 2015. 06:52)

Although I was weaving facing the tapestry front, I would frequently pause and take a few steps back, as if *peering through the warp threads*, to ensure that my work truly (re)presented the essence of the participants' and my own narratives. During these moments, I would also gaze at my own *reflection* in an *imaginary mirror*, which felt more real than anything else in the room. This is mainly because it revealed the maturation of my

understanding and evolution of my ideas. In its reflection, I could see my own metamorphosis and growth throughout this transformative journey of exploration.

In this chapter, I discuss a few moments of insights that I experienced while picking my way through this dissertation tapestry. The word *picking* carries both a metaphorical and a literal meaning. Metaphorically, entering a shared space with the participants through story-hearing and story-weaving allowed me to unravel some of my entangled experiences with online education, while challenging my assumptions and interpretations. Literally, engaging in the creative act of weaving without prior knowledge of this craft broadened my perspectives on what it takes to become a deeper learner. It also expanded my understanding of the multidimensional constructs I am investigating, namely: communication, interaction, engagement, and deeper learning.

The repetitive back-and-forth, over-and-under motions of weaving were often accompanied by a similar dynamic movement of reflexivity within the metaphorical space of narrative. In my learning journal, I recorded some of my reflexive insights, while others were too intricate and abstract to be captured in words. However, in the tapestry, I found a means to express them through textured shapes and colors. In the following sections, I share excerpts from my learning journal, reflecting on how they align with notions related to the research topic in light of the participants' narratives. Additionally, I incorporate pictures that capture significant reflexive moments from the tapestry-making process, detailing how these instances have deepened my understanding of my "self and self-in-relation" (Lyle, 2023, p. 17).

Why Online?

Embarking on this reflexive journey, I delve into aspects of my identity that ignited my interest in researching eNVC in discussion-based online courses. In the pages of my learning journal, an entry from October 2020 stands testament to this early self-discovery:

Why Should I Care about This Research Topic?

(A difficult question)

I guess I care because I am an educator who resisted online education for so long because I believed it lacks interaction and engagement that lead to deeper learning. (Does this sound familiar?)

But as a mother of four school-age children, my choices were limited to either giving up on my dream of pursuing graduate studies or giving online education a try. I chose the second.

I was in the early stages of outlining my dissertation proposal when I wrote this journal entry and rereading it while finalizing this dissertation makes me realize that I used the word *dream* to describe my desire to pursue graduate studies. This brings to mind Jasmine's remark in her narrative about education being *that goal to overcome* due to financial limitations. Similarly, quality education has always been a *dream* for me to fulfill, not only for financial reasons but also because of the Lebanese civil war that hindered proper schooling for over 17 years. During that time, I endured hardships that no child should ever be exposed to. Fearing for our children's future in an unstable country, my husband and I moved to Canada in the first decade of this millennium. However, we soon discovered that our chances of securing jobs comparable to our lifelong careers were extremely slim unless we upgraded our credentials. Consequently, my husband attended school for several years, and when my turn came, I could

not leave the children due to his work commitments. With zero family support, I had to devise a way to study and care for my family simultaneously. Online learning seemed to present a viable solution, despite my apprehension and doubts.

Echoing Casti, "convenience" is the one-word answer I use for the question, "Why online?"

Echoing Subee, I can say that the first online course "just floored me!"

Unlike Jasmine, who was disappointed because her first course did not meet her expectations, I did not know what to expect. Borrowing from Casti, I felt as if I was walking with "no road at all, no path for me." The readings and postings overwhelmed me, and during the first term, I spent two to three days (and nights) crafting only one post of approximately 200 words. The whole process was particularly challenging for me, as a non-native English speaker, and I often used an online dictionary not only to ensure that my words matched my ideas but also to look up expressions that my peers articulated in their posts. Reflecting on that time, I notice that although I met the course requirements by interacting with peers in the discussion forums, I did not truly engage with any one of them in the first course, mainly because I exhausted my energy on adapting to online learning. Although I performed well in my first online course, looking back, I realize that the knowledge I gained did not have a lasting impact or motivate me to apply it in innovative ways. In retrospect, I can say that I did not experience the level of deeper learning that I perceive now as emerging at the intersection of mastery, identity, and creativity (see Chapter 2, Section 4: Deeper Learning). Luckily, this situation did not persist for long because, as mentioned earlier in this dissertation, my second online course became a turning point that completely transformed my online learning experience and ignited the spark for the topic of this study.

Instructor Teaching from the Heart

Regarding this matter, I documented in my learning journal in October 2020:

While I was still learning how to learn online during the second course of my master's

degree, I met a professor whose instructional strategies left me wondering how she

could teach from the ♡ in an asynchronous, discussion-based class. Not only did she

facilitate discussions in ways that promoted deeper learning through interaction and

engagement, but she also built a learning community that extended beyond the time and

space of her class – a simple example is the strong connections I made with some peers

that started in this professor's discussion forum over Kolb's Experiential Model, and

they continue until now.

Allow me to pause my journal entry here, and fast forward to a significant moment

from Subee's interview. When discussing courses that had a lasting impact and practical

application, Subee brings up a course on online learning and teaching. She highlights its

importance in the context of the global shift to online education during the COVID-19

pandemic. To my surprise, she adds:

The other one might have been the one where we learned about Kolb's cycle. That's the

one I keep going back to, and it surfaces in my head all the time when I'm trying to

learn something new or teach something new. That whole cycle is in my head.

Though parts of this quote appear in Subee's narrative (see Chapter 5, Subee's

Restories), I am bringing it back here to highlight that, while referring to Kolb's cycle (Kolb,

1984), Subee forms a circle with her hands and places it on her forehead. We share a laugh,

remembering that I had posted an image of a spiral on the discussion forum then to illustrate

my understanding of the growth that comes from recurring journeys around the stages of the

experiential cycle. Although Subee has a vague idea of my research topic, she is unaware of the deep impression that the spiral imagery has left on me since that moment. This impression is so profound that I am employing it in this study on eNVC and Deeper Learning. A wave of joy washes over me as Subee goes on to remind me that my spiral picture was "the first pictorial visual thing that anybody did" in our online courses. Following that post, Subee has noticed "more people would put stuff like that," hinting at the possibility that my action may have inspired similar ones from others.

In addition to the visual aspect of eNVC evident in this memory, revisiting it with Subee holds great significance as it enables me to realize that my quiet transformation amid the uncertainties of online learning was not completely unnoticed. What surprises me further during the interview is that, without any prompting from me, Subee spontaneously shares her perceptions of our instructor, describing her as "very complimentary and present" with an "easy demeanor" and a "soft voice". Given that we never had the chance to see or hear the instructor, I inquire about the "voice" description. Subee proceeds to clarify:

> Well, the voice part is that when I read something online, I automatically translate it into a voice that I think suits the person in my head. For some reason, my head gave her a very soft, caring voice because she was so committed to our course. And I thought, well, she's a caring, committed instructor. I know it.

It struck me how closely Subee's perceptions of our instructor mirror my own, which I had articulated in my journal entry almost a year before this reunion with Subee. In the previously mentioned entry that I momentarily paused, I had written:

> *It is in my second course that I started wondering whether actions speak louder than words in an environment where communication happens only through text. Although I*

have no idea what the professor of that course looks or sounds like, her behavior in the

asynchronous discussion forums sparked my curiosity to research the X Factor that

made me perceive her as an instructor who teachers from the heart. Upon reflecting on

her actions, I observed that she had a keen sense of timing, knowing when to post and

when to refrain, allowing discussions to unfold and mature naturally. She also

demonstrated attentiveness to the emotional needs of students, while being cautious

about offering her "expert" opinion. Other eNVC I perceived as influencing interaction

and engagement in the discussion forums included how much (or how little) she posted,

in addition to her use of emojis. I hope that, once I discover a little more about this, I

will share my discovery with the wider community of educators. My hope is to

contribute to the improvement of the online learning environment for both faculty and

students – including my children, who started online learning much sooner than

anticipated because of the pandemic.

Desire to Understand a Quotation

Reflecting on the last sentence in the context of when I wrote it, I remember the

struggles teachers and students faced, my own children included, as they grappled with the

pivot to remote teaching. This cocktail of observations and emotions fueled my determination

to embark on this study, hoping that my findings might contribute to refining emerging

practices of online learning.

As discussed in Chapter 1, during that time, remote teaching relied heavily on video-

conferencing tools. Asynchronous discussion forums functioned more as platforms for student

inquiries and teacher responses, rather than venues for deeper learning. This spurred me to dive

deep into relevant literature, aiming to expand my understanding of the concepts that this study explores.

It is important to note that at that juncture, I had already identified my research puzzle and decided to adopt a narrative methodology. However, artography and the process of weaving were not on my radar, nor were they part of my original research plans. To clarify, I was not even aware that tapestries, similar to the one I have woven for this dissertation, existed; much less did I understand the craft involved in their creation.

Tapestry – Aha Moment!

Driven by a burning desire to understand a simile that I came across in the literature, I experienced one of the most enlightening moments in my research journey. Below is how I documented it in my learning journal, when it occurred in the fall of 2020:

> *[V]erbal and nonverbal behaviors are like strands in a tapestry, inextricably*
> *intertwined; they are not isolated structures but rather form a unified communication*
> *system in which nonverbal signals are closely synchronized and integrated with*
> *language to form a complex whole.*
>
> (Burgoon et al., 2010, p. 202)

> *I read and reread this quote several times, intrigued by what it is about tapestry*
> *that resonates with me. In my quest to understand its significance, I tap into a faint*
> *memory from my childhood, when my parents took my siblings and me to a remote*
> *Lebanese village where weavers craft rugs by hand. I remember the rhythmic clacking*
> *sound of the looms, and our excitement at witnessing something new, but little else.*
> *Seeking a deeper understanding of the tapestry imagery in relation to communication, I*
> *turn to Google for more information. My heart flutters with a sudden sense of*

illumination when I come across a YouTube video called: The Art of Tapestry Making

in France (Getty Museum, 2015).

Words fail to capture my feelings while watching the video. I am completely

mesmerized by the image of the weaver, seated at the back of a huge tapestry,

recreating the work of an artist with her colored threads, one millimeter at a time. I see

a reflection of myself in the weaver sitting behind the loom, moving her bobbin between

wefts in slow motion to the soft strains of background music, then using the back of her

bobbin to tamp down passages of weft (Figure 28).

I contemplate my role as a researcher, hearing the narrator's words echo: "The

weaver invests a part of herself in the work."

Figure 28

Weaver Tamping Down Passages of Weft
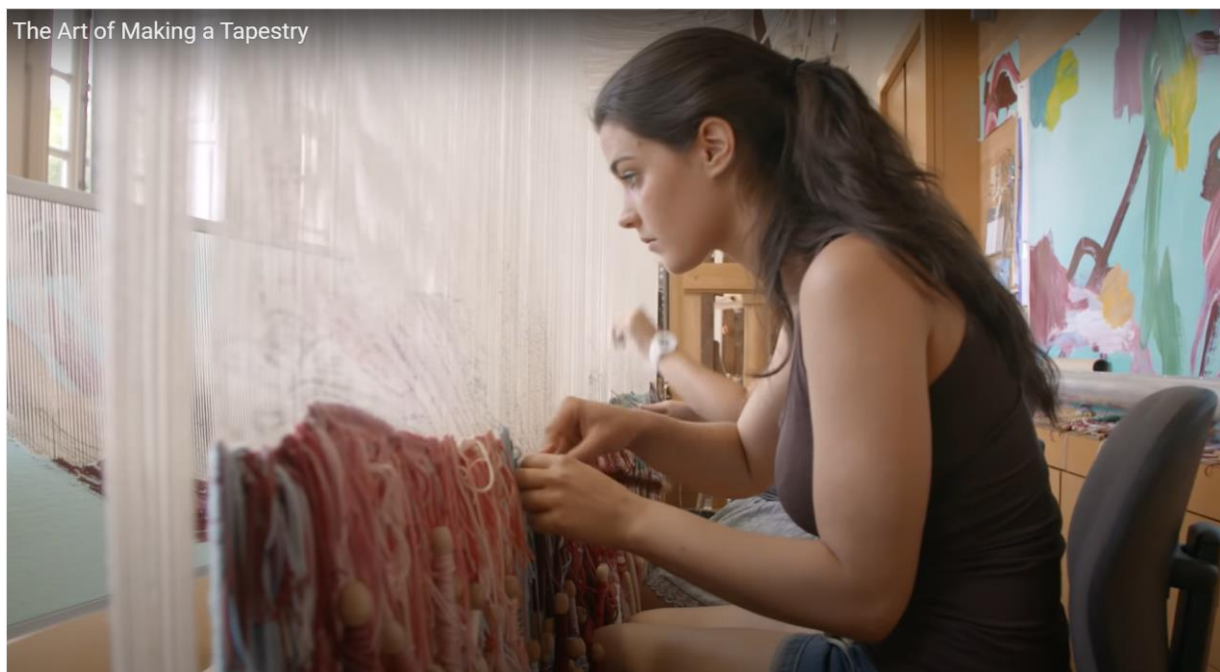
Note. This image is a screen capture of The Art of Making a Tapestry video (Getty Museum, 2015. 06:37)

I nod, reflecting on how much of my self I am investing in this study. The narrator continues:

"As [the weaver] works, she occasionally looks between the warp threads to see the front of the tapestry reflected in a mirror".

The narrator further clarifies that when the mirror is just right, the tapestry reflection aligns perfectly with the woven area.

This imagery prompts me to visualize how this action also allows the weaver to get a glimpse of herself (reflexivity – a term that springs to my mind).

What follows is a description of the weaver's skills in relation to the tapestry's structure: "The weaver's skill and experience enable her to accomplish not only a complex design, but to create a textile that's structurally sound."

I see clear parallels between conducting this study and weaving a tapestry. The importance of paying close attention to every detail resonates, especially because:

"A tapestry takes years to make. A finished tapestry is a celebration, honoring a work of art and the people who created it".

*What an **aha moment!***

My dissertation will resemble a tapestry of stories telling about the tapestry of communication in asynchronous online discussions. I, the researcher-weaver, will interpret the work of the original artists, the storytellers, looking through the warps to see their stories take shape as I write, while also occasionally catching my own reflection in a reflexive manner.

Intrigued by the art of tapestry making, a thought emerges: What if I start a small tapestry weaving project at the same time as the dissertation, and translate every story,

including mine, into a color and a shape?

    With no prior knowledge in weaving, I embark on a journey of discovery to learn what tools I need. I watch videos about weaving for beginners and try to learn how to assemble a loom. This venture does delay my writing process, yet it feels equally significant.

As I read the last few lines of my journal entry, I recall the sense of guilt that I experienced after spending weeks learning about looms and weaving instead of working on my dissertation proposal. Little did I know at the time that this thin thread of curiosity would lead me down the path of conducting this study not only as a *researcher-weaver* but also as a *deeper learner*, seeking to bring my whole *self* into my academic work. This *self* stretches the boundaries of cognition to merge it into interpersonal and intrapersonal ways of knowing, including affective and spiritual knowledge - the hallmark of deeper learning as described in the last section of Chapter 2. With these thoughts in mind, I decided to enact the metaphor that guides my study by firstly purchasing a frame loom big enough to hold the research stories, yet small enough for a dissertation project. I settled on a Mirrix Loom (see Appendix H), which I ordered blindly online due to store closures in December 2020.

Loom, Literature, and Methodology

The loom arrived, unassembled, right before Christmas of 2020. After several failed attempts at putting it together, I figured out that the warping bar was longer than it should have been. I saw a symbolic similarity between sawing a piece off the warping bar and the ongoing process of removing sections from my proposal draft. In the same manner that a properly set loom is imperative for a structurally sound tapestry, an academically solid proposal is critical for a scholarly rigorous dissertation. This resemblance was solidified by the repeated sequence

of circular movements along the loom during the warping process, which, in my mind, represented my research methodology and design. I remember feeling the need to write the warping steps on paper, then verbalize each one while cautiously going through the motions. Using one continuous thread from beginning to end, I spent five hours warping without interruption, lest I compromise tension consistency (Figure 29).

Figure 29

Warping the Loom - Steps to Follow
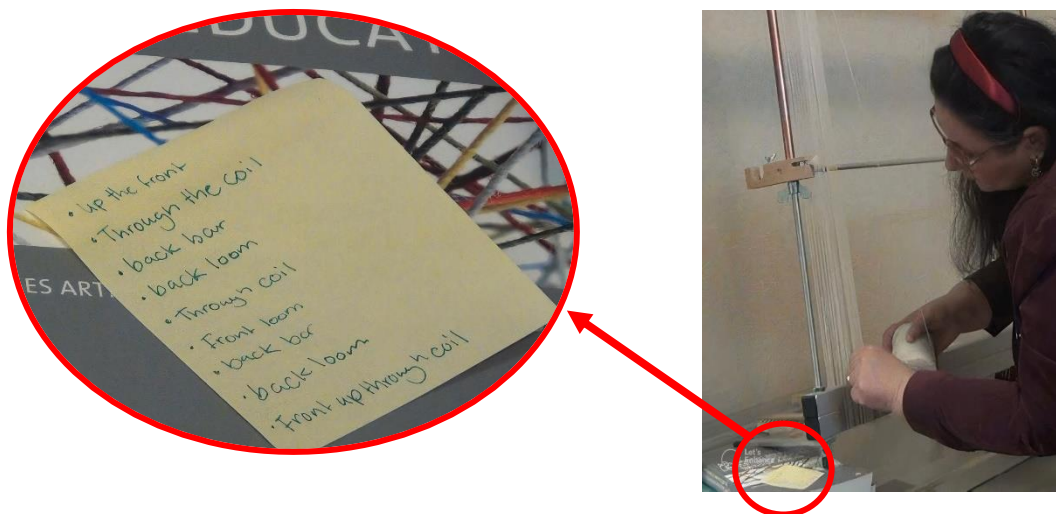
Reflecting on my learning throughout the process, I noticed how my confidence increased with repetition until I reached a level of comfort and enjoyment. Projecting this onto my learning of how to conduct this study, I concluded that the creative expression I long for will emerge through mastery, which requires repetition, time, patience, and the ability to embrace mistakes as learning opportunities. The notion of mistakes stemmed from the errors I made while warping, which eventually led me to undo what I had already done, and then redo it correctly. I viewed this as one of the first steps towards understanding what it takes for me to

become a deeper learner through this research project. While it is virtually impossible to explain everything that I experienced on the road to becoming a researcher-weaver and deeper learner, in the next section, I describe a few moments of sudden illumination that I had while weaving.

Weaving my Way into Deeper Learning

"Deeper learners don't give up easily. They have a goal in mind and persevere on a task

until it's completed."

(Costa & Kallick, 2015, p. 68)

Ambition. Aspiration.

Persistence. Perseverance.

Dedication. Determination.

Finalization. Fruition

These are just a few words that spontaneously jump from my mind to the document I am typing when I contemplate my tapestry-making adventure. Although I am deeply satisfied with my (un)finished tapestry now, as I write the final chapters of this dissertation, I must admit there were times when I seriously questioned my decision to make it. After completing the digital design that used as the tapestry cartoon post-interviewing the participants (as described in the research procedures in Chapter 4), the idea of substituting the weaving with the design image crossed my mind more than once. I even debated this with myself in my learning journal, arguing that:

The cartoon is a great visual and a creative representation of the narratives. I could

just tweak my proposal a bit and let go of the whole idea of making an actual tapestry.

As if completing a dissertation isn't challenging enough for a mother of four with a full-

time job trying to survive a pandemic.

Thoughts like these invaded my mind and shook my resolve during the difficult time of homeschooling, sickness, and hosting refugee family members. I genuinely doubted myself as I sat at the warped loom in January 2021, cutting and tying 320 heddles - one for each warp thread (Figure 30). Installing the shedding device using these heddles was more tedious than anticipated. It required nothing but precision and focus, which, eventually, put an enormous strain on my eyes to the point where my vision blurred. However, I persevered through it and was quite content to see the loom ready to receive the narratives it had silently witnessed in my office during the online interviews.

Figure 30

Installing Shedding Device Using Heddles

Given the time and effort already dedicated to setting up the loom, I dismissed the idea of not weaving. So, I made the trip to the yarn store, armed with a copy of the tapestry design. Upon entering the store, I felt my heart pounding with excitement at the sight, touch, and scent of countless colors, textures, and fibers. I spent hours walking up and down the aisles,

comparing shades of skeins to sections of my design. After careful consideration, I made my final selection and left, beaming with joy at the thought of realizing a dream.

Until that point, the tapestry had only been a mental creation, an aspiration. But when I brought the yarns home and arranged them by shades in baskets (see Chapter 4, Figure 15), the idea became all too real. "Have I been too ambitious, thinking I can teach myself how to weave a dissertation tapestry?" I wondered as I tied Rya knots for the fringe (see Figure 16). I candidly acknowledged that I took a huge risk as I nervously guided a red weft through the first shed.

Educated Risk

"Deeper learners 'live on the edge of their incompetence' and place themselves in situations where the outcomes are unknown. … However, their risks are educated."

(Costa & Kallick, 2015, p.74)

"*This is much more complex than I thought*," I noted on February 4, 2021, after spending hours weaving and unweaving the first few rows. With my wireless headset on, I listened to the participants' interviews and felt a *tangible* resemblance between our initial experiences with the online course discussion forums and my own trials in figuring out how to weave. The frustrations and confusions described in our narratives began taking shape through the double tension that I experienced, both emotionally and literally, as I moved colored threads through my fingers across sheds. Unsure of the outcome as my weaving mistakes accumulated, I recorded in my journal a few days after starting the weaving:

I've decided to stop unweaving and leave my errors as visible evidence of my learning.

My aim is not to create a beautiful tapestry, but rather to craft a tapestry that

represents:

- *the communication analogy,*

- *the research narratives, and*

- *my experiences as a deeper learner.*

Even if it turns out to be a total disaster, I will still learn something from my attempt to create it.

Awareness of the purpose and potential impact of the dissertation tapestry helped me refocus on what mattered most throughout the process: my *being* and my *becoming* as a researcher-weaver. Furthermore, embracing the risk of failure did not dissuade my determination to continue pushing forward. Thus, I wove every night until I reached a level of comfort that allowed me to experiment with different techniques. Some were successful, while others imparted valuable lessons. Regardless of the outcome, I cherished the learning that emerged from each weaving session, as I engaged in reflective and reflexive thinking about my experiences and thoughts. Many of these insights eluded me before I could transcribe them into words, as I simultaneously lost and discovered aspects of myself in the recursive actions of weaving.

Mastery, Identity, Creativity

"… deeper learners are always striving for improvement, always growing, always

learning, always modifying themselves."

(Costa & Kallick, 2015, p. 75)

My understanding of the three virtues that Mehta and Fine (2019) describe as integral to deeper learning evolved significantly throughout this study. Initially, I interpreted mastery as a comprehensive understanding of a particular subject area, along with the capability to apply that knowledge efficiently and accurately. However, while working on the tapestry, I began to

appreciate its connection with the nonverbal categories of effort and time. I realized that weaving, like any other skill, necessitates consistent practice and repetition, naturally occurring over time. Due to the inherent characteristics of weaving, every *passage* of time—and weft—was marked on the tapestry with each pick, leaving a tangible trace. Through this firsthand experience, I witnessed the design of the tapestry take shape and evolve as my skill improved, reflecting a growing mastery. This is an embodiment of Kacia's perception of incremental improvement, as she succinctly puts it: "If you're already good, you can become better; and if you're better today, you can become even better tomorrow." The continuous improvement that Kacia describes not only leads to mastery but also to self-modification, as outlined by Costa and Kallick in the quote at the beginning of this paragraph. Mehta and Fine (2019) echo this sentiment by stating that practice of a certain skill, like swimming, subtly alters a person's identity to align with their domain of practice, evolving from "I'm someone who swims" to "I'm a swimmer" (p. 18).

In a similar vein, my identity evolved as I navigated through the frustrations that I experienced at the beginning of the weaving process to a comforting sense of *this feels so natural to me*. Upon introspection, I recognized that this *natural* feeling did not spring from the artistic aspects of weaving. Rather, it came from the back-and-forth movement of the needle through the warp threads. This rhythmic dance, a row from right to left, followed by another from left to right, resonated with my identity as a Lebanese-Canadian proficient in both Arabic and English. The processes of reading, writing, and cognitively processing Arabic from right to left, and English from left to right, equipped my brain and hands to smoothly adapt to the bidirectional weaving motion. I saw a link between my identity and the nonverbal category of space as I gained awareness of how the passage of weft through space contributed to

bringing my whole *self* to my dissertation tapestry. Combined with the nonverbal category of time, my *self* continued to evolve towards the researcher-weaver I aspired to become when I started this project.

Over the span of four months, weaving became second nature for me. However, I had only completed one third of the tapestry. I frequently wrote in my journal, expressing regret at the sight of my slow progress. *Why did I make it so big?* I often asked myself. *Do I have to complete it?* This was a recurring question each time I adjusted my dissertation timeline. My peers in the doctoral program, expressing their concern, encouraged me to abandon weaving and concentrate on writing. I concurred, believing it to be the sensible course of action. Nevertheless, I found myself unable to relinquish the tapestry. Each attempt to abandon it was met with failure. For some reason, the tapestry's allure was irresistible, drawing me in until I finally surrendered and followed my heart once more. To my surprise, allowing myself to temporarily set aside writing and focus solely on story-hearing and story-weaving resulted in an outpouring of creativity.

Figure 31

Communicative Power of Silence

Considering the fun aspect of weaving, I started experimenting with several techniques, even inventing some just to see what would happen if I did things differently. Some attempts failed spectacularly, while others were quite successful, such as the first unwoven area I left to symbolize my understanding of the communicative power of silence (Figure 31)**.** Comparing the weft to the verbal aspect of communication and the warp to the nonverbal cues interwoven with the words, I noted how the weft completely covered the warp, conditioned by its tension and spacing. However, in the absence of weft, the warp became more visible, forming shapes on its own. This juxtaposition between woven and unwoven areas broadened my understanding of meaning-making through the interplay of verbal and nonverbal cues, contingent on contexts and relationships. In addition, this process nurtured the artistic side of me that yearns for creativity and forging new connections between existing concepts. At that point, I also found a deep sense of enjoyment in weaving, and I could hardly wait to return to my tapestry every day after fulfilling my work and family responsibilities. I often approached it with a sense of curiosity as I wondered: *What is it going to teach me today?* - and it never disappointed me.

I embraced the learning and joy of making the tapestry until July 2022. Then, a wave of unexplainable sadness washed over me at the thought of finishing it. Therefore, I wove the last shape into the design, added a few others, and left the tapestry (un)finished, finding solace in the thought of fully completing it once I passed my final defense. As mentioned in the (Un)finished Tapestry section of Chapter 4, I spent the following few weeks weaving smaller pieces that represent parts of the tapestry, as a token of gratitude for the people who supported me throughout this project. After that, I detached the tapestry from the loom, and shifted my focus towards the written aspect of my dissertation.

Figure 32

Removing Tapestry from the Loom

As I reach the end of this chapter, I turn around and smile at the sight of my (un)finished

dissertation tapestry, gracefully hanging on the wall of my home office. Reflecting on the

emotions and stories intricately woven within its threads, I compose a poem that encapsulates

my journey as a researcher-weaver and deeper learner. As seen on the following page, I have

structured it as a mirrored line-unit poem to represent the reflexive nature of my journey and

align with the *Peering through Warp Threads* action of the weaver, mentioned at the beginning

of this chapter. It is also worth noting that the pun with the word *yarn* in the middle line of the

poem is intentional.

Figure 33.

Complete Tapestry Before Cutting

Rima's Mirrored Poem

<u>**Story-Weaving**</u>

I guide a thread of colored weft

from left to right, from right to left.

A sense of *self,* at depth to see;

I wonder if there'll ever be

a tale to tell, a work of art

from my head, hand, and heart.

With every strand, a symphony

of stories sung in harmony.

A creation comes alive

when I struggle to survive,

I weave a *yarn* that never ends; but

when I struggle to survive,

a creation comes alive

of stories sung in harmony.

With every strand, a symphony

from my head, hand, and heart.

A tale to tell! A work of art!

I wonder if there'll ever be

a sense of *self,* at depth to see

from left to right, from right to left,

I guide a thread of colored weft.

(Feb. 1st, 2023)

Chapter 6 Summary

This chapter, titled *Peering through Warp Threads*, delves into my reflexive journey when I was navigating the complex world of weaving, paralleling it with the process of my research. It embodies my transformation as a *researcher-weaver* and my exploration of deeper learning through weaving. The narrative highlights my journey through educated risks and deeper learning, inviting moments of frustration, discovery, and growth that shape my understanding of weaving and, by extension, communication. The tapestry of my experiences weaves together the verbal and nonverbal cues into a comprehensive understanding of human communication. As I engage with my creative side, I discover the inherent joy in the art of weaving, illuminating its broader implications and how it reflects the intricate, nuanced process of my research. The journey that unfolds nurtures a profound sense of fulfillment, while simultaneously serving as a medium of learning and an embodiment of the complexities of my dissertation process. The conclusion of this chapter takes the form of a mirrored poem, a heartfelt encapsulation of my journey. Its structure serves to echo the reflexive nature of my study and brings to life the imaginary mirror discussed earlier in this chapter, thus reinforcing the metaphor of peering through the warp threads.

ENVC & DEEPER LEARNING

CHAPTER 7

IRREGULAR HATCHING

Instructors speak, their words are spun,
The weaver's work is far from done.
Learners voices soon take flight
In this tapestry of insight.

Chapter 7: Irregular Hatching

(Findings, Insights, and Newer Understandings)

In this chapter, I discuss the research findings, insights, and new understandings about eNVC and deeper learning that emerged through the analysis of the participants' interviews in light of my tapestry-making experiences. The title, *Irregular Hatching*, refers to a weaving technique that I employed to add depth and texture to shapes by altering hues of weft within the same row.

Figure 34

Irregular Hatching Weaving Technique – Tapestry Close-up

As shown in the picture above (Figure 34), the stripe-like effect of this unplanned, yet meticulously considered irregular hatching enabled me to create variations in shades and tones, resulting in color harmonies that are both visually pleasing and illustrative of the storied experiences that I was weaving. Since *Meet and Separate,* the focus of Chapter 5, is essential for achieving irregular hatching, I have aptly titled this chapter *Irregular Hatching* to reflect its

outcomes based on the participants' narratives. Therefore, in the following sections, I present findings that address the first two subquestions of the research puzzle. Specifically, I discuss aspects of eNVC that participants found to promote or hinder deeper learning through interaction and engagement in the online course discussion forums. In the first part, I examine insights from the instructors' interviews, while the second part focuses on the learners' perspectives in this regard. The combination of these findings contributes to addressing the main research questions and the emergence of the study themes and recommendations.

Part 1: Instructors Perceptions of eNVC

1a. What aspects of eNVC do instructors perceive as promoting or hindering interaction and engagement in asynchronous online course discussions?

To address this question, I examine narratives from Kacia, Patricia, and Caitlyn, who discuss their experiences with eNVC and the effects these cues have on deeper learning through interaction and engagement in the online courses they teach. Since interaction and engagement involve both students and faculty, the subsequent sections explore aspects of eNVC pertaining to both groups, as explained by the instructors in this study.

At this juncture, it is important to reiterate that nonverbal cues can overlap and intertwine with each other and with verbal cues, forming complex layers of meaning much like the strands of a tapestry. Nonetheless, for the sake of clarity and organization, I present these cues separately, while still acknowledging their interconnected nature. Consequently, I categorize these cues under four headings reflecting the instructors' perceptions of chronemics, eSET, 2D visuals, and pauses in communication or absences from the online course discussions.

Instructors' Perceptions of Chronemics

Starting with chronemics, instructors in this study express awareness of the meanings conveyed through their own and their students' use of time. Kacia, Patricia, and Caitlyn primarily focus on the effects that sequencing, workload, timing, and frequency can have on interaction and engagement, as described next.

Sequencing. Discussion-based online courses, unlike emails, mobile phone text messages, and social media chat features, usually adhere to a pre-planned chronological structure. Instructional designers or instructors organise course material and activities in a way that allows different concepts or ideas to build upon each other over time. As a result, certain tasks like readings, discussions, assignments, and projects need completion within specified time frames. Furthermore, many instructors designate specific timelines for initiating or concluding certain instructional activities, particularly discussion forums.

This scheduling of activities establishes expectations, and occasionally rules, that are associated with the chronemic code. Adhering to or deviating from these expectations can have a message value, depending on various factors, including context, roles, and relationships. The primary focus of the chronemic subcategory discussed in this section is the communicative aspect associated with sequencing the online course activities, as viewed by the instructors.

This concept is clearly evident at the onset of Caitlyn's narratives. She acknowledges that designing online courses provides her with the "time and opportunity to sequence questions and activities" and to "almost test" them for optimal learning outcomes. When queried about the reason for investing effort into sequencing the online course material and discussion questions, Caitlyn remarks:

So many courses I took were: "Okay, read this!". And I wondered: "Well, why the hell

am I reading it? What is it that *you,* as an instructor, want me to get out of this?" I was

like, "Well, why don't I make that explicit?" That's why I tried to communicate,

"When you read this, this is what I want you to look for", compared to other

experiences I've had of "read this, and you don't know why". So, I was working on my

questioning strategies, and also trying to ease people into the material, but being really

transparent in my pedagogy.

As shown in this quote, Caitlyn draws connections between her intentionality to ease

students into the material and sequencing questions and activities to facilitate students'

transition from concrete to abstract thinking. Caitlyn also explains that such strategies spark

interactions in the forums. She recalls that when this happened in her previous courses, she felt

"quite engaged in what the students had to say and respond."

Along the same lines, Kacia emphasizes the importance of sequencing tasks for the

growth of the students' learning. In this respect, she declares that in her courses, "tasks are

required for the next tasks. So, the learning from today, they'll need that for tomorrow. So,

they are all eager to learn today so that they can do better tomorrow." After establishing the

link between the sequencing of tasks, their timing, and the students' learning, Kacia adds

enthusiastically:

All my tasks are in the discussion forum. My students loved it. I loved it. They couldn't

get enough of it. The more they did, the more I provided, and if they lacked in an area, I

created resources. …And remember, I would take time to create a resource.

In addition to discussing the emotional dimension of engagement that both she and her

students experience upon completing the cumulative tasks, Kacia highlights the additional time

needed to prepare supplementary resources. This point segues into the next subcategory that

instructors in this study associate with chronemics - the increased workload and time commitment required for online teaching.

Commitment and Workload. Contrary to synchronous sessions that inherently have a fixed start and end time, the virtual doors of online courses remain open for the entirety of the duration of the course. From the commencement date to the end date, an online course is continuously accessible for interaction and engagement. This temporal freedom, associated with the aspects of asynchronicity discussed in Chapter 1, amplifies demands on an instructor's time. In addition to preparing digital course material, online instructors need to maintain ongoing communication with students, provide feedback, grade assignments, and participate in discussion forums. While the time devoted to instructional activities varies among instructors, it is virtually indisputable that these activities combined with temporal flexibility intensify the workload for instructors committed to delivering quality online education. Caitlyn articulates these thoughts eloquently as she explains:

> It's just inevitable. You cannot do a good job unless you put in the time, and you got to be there every day or two. It's just the way it is. And I've never totally overcome that. I also know that there are other people like me who will put that time in, and there are lots who won't.

Of the two groups of instructors that Caitlyn mentions in this last quote, Kacia is certainly among the instructors who invest the time, typically very early in the morning, because "the class is open 24/7," as Kacia remarks. In addition to perceiving this level of time commitment as part of her job, Kacia also comments that it is "a pleasure" for her to see the students' "learning growth" as they "engage with each other's opportunities to learn." About the time commitment this requires, she adds, "Yeah, it does take time, but I loved it. I loved it

immensely." With this comment, Kacia once more associates the amount of time she dedicates to the online course activities with her emotional engagement.

While the additional workload accompanying instructors' engagement in the asynchronous course discussions can be demanding on their time, it does not come without positive outcomes. One of these outcomes is setting expectations by actions rather than words, as Caitlyn notes:

> If you're in after the first couple of days, seeing things, then they know you're there and you're reading. So, to sort of set the expectation "Hey, look, guys, I'm here, and I'm reading your stuff. So, get in here." So, it helps with those expectations.

> On the flip side, Caitlyn comments that the impact of not investing the time is "cynicism". She also explains that while some online courses are designed to be "canned," which is acceptable, "the worst ones are when the course has been set up as this great learning experience, and then you don't deliver without engagement; that makes people cynical." However, it is important for instructors to ensure that they do not dominate the discussions, which can be one of the negative side effects of instructors excessively posting. Since this concerns the quantity of postings as well as time intervals between them, I refer to this subcategory of chronemics as frequency in the section that follows.

Timing, Frequency, and Leadership. Literature on the online instructor role is abundant, ranging from the value students put on their presence in the asynchronous discussions to the necessity of remaining invisible, and interfering only when issues arise (Andresen, 2009; Clarke & Bartholomew, 2014; Hew, 2015). While both positions, and everything in between, are grounded in educational theories and research, the truth remains that the optimal frequency of the instructor's observable and quantified participation in the

discussion forums depends largely on several factors. Some of these factors pertain to each instructor's preferences, experience, and confidence, while others are relevant to the students' needs, comfort, knowledge and so on. The timing of discussions, nature of the topic being discussed, prompt questions, and what the instructor expects the students to achieve through the discussion also influence the frequency of the instructor's participation.

Despite the multiplicity of these factors, and others that I have not listed, instructors participating in this study agree that the frequency of the instructor's participation needs to be higher during the first few days (or weeks) of the course. In other words, instructors need to post more often at the beginning of the course, strategically using the timing and frequency subcategories of chronemics to establish a presence, set expectations, model desired behavior, and create a welcoming environment. As the weeks go by, instructors tend to post less to avoid dominating the discussions and discouraging student engagement. Patricia comments on this point saying, "If students are engaging with each other in a discussion forum, and you, as the expert, jump in too early or too often, … their peer-to-peer engagement is almost being interrupted. …There has to be a balance."

The notion of balance also appears in Caitlyn's narratives about the same topic. "You're balancing a whole bunch of things, deciding when to weigh in", she says reflectively as she talks about the frequency of her postings. She then explains:

> Just different strategies, and what I'd be getting out, too, is not dominating. So being present, but not steering things so much that you're shutting other people down, or they're either intimidated or they don't feel that they have to do the work because you're doing it for them. There's a balance to strike there. Right?

Aware of the downside of dominating online discussions, Caitlyn also cautions against stepping too far back and letting go of the instructor's leadership role, as noted in her quote below:

It's a continuum. I would say that there's different ways to be engaged and present without oversteering, and I think that would be my *sweet spot*. I think we can steer so far in constructivism that we forget that we're not just hired there to pat people on the back and say, "Thanks for your observation", or "Yeah, you did that reading." I mean, I'd like to think I have something to contribute if put umpteen hours into building the course and choosing readings, and that I have ideas about what I'd like people to get out of the course; that I'm showing some leadership there, right? … I know I have things to contribute. I know that I can help people understand critical perspectives more. I know I can help people to think more carefully about policy, for example, and the influence of policy on sociological imagination. And if I'm not actively trying to facilitate that kind of learning, what am I doing there?

In this last quote, Caitlyn touches on several areas related to the instructor's role. Despite the importance of all of them, for the purposes of this section, I highlight the link she makes between the "umpteen hours" that she spends on preparation, her engagement as an instructor, and her desire to show educational leadership without oversteering. One of the strategies that Cailtyn and the other participants use to reach that "sweet spot" is refraining from assuming an expert position by frequently posting long, informative posts in the discussion forums. Instead, they try to intervene at strategic moments to connect ideas, attend to students' needs, point out gaps, and ignite a sense of curiosity that piques the students' interest and encourages them to explore newer understandings. Identifying these strategic

moments requires a high level of attunement to the learners' needs and the dynamics of their

interactions in the discussion. This awareness is more likely to happen when instructors

perceive messages exchanged through the intertwining of words and eNVC in the discussion

forums. While this notion may seem unfamiliar to faculty new to distance education,

instructors in this study show an understanding of students' eNVC, which they gained through

their educational studies, experiences with online teaching and learning, and dedication to

quality distance education. In the next section, I discuss the instructors' perceptions and

interpretations of their students' use of chronemics in the discussion forums.

Instructors' Perceptions of Students' Chronemics

Time Away from Interactions. In line with their intentional use of chronemics to

establish presence and lead online discussions without dominating or oversteering them,

instructors see the necessity of giving students time away for reflection and cognitive

engagement. In this respect, Kacia emphasizes the importance of asynchronocity compared to

virtual, live sessions (which had increased in popularity when conducting this study because of

the pivot to remote teaching):

> The brain needs time, and the brain needs space. If two a.m. after my child's feeding is
>
> when I'm ready, so be it. Don't make me do this at nine a.m. when we are in session via
>
> Zoom, WebEx, Teams, or whatever platform is being used. That's not the way the brain
>
> works.

However, this time (and space) away from the course interactions can be challenging to

manage, especially when students live and function in a dual time dimension, *real* and *virtual*.

While the *real* waits for no one, the *virtual* is elastic, lengthened, and stretched (Bender, 2012).

Due to its qualities, *virtual* time not only intersects with the students' real time obligations, but

it also potentially competes over their attention and focus. This is why time/self-management and planning are discussed by the study participants as necessary competencies for success. Caitlyn touches on this saying:

> I try to encourage people to make a plan, "I know, you're not going to be able to get to every forum post, and it's okay if you want to set goals for what you think you can achieve in this class. But plan that ahead of time and set the time aside."

Planning and setting the time aside are notions discussed more in-depth from the learners' perspectives in the Balancing Virtual and Real Time section of this chapter. Regarding the instructors' perspectives, it is important to note that that instructors participating in this study show an in-depth understanding of challenges that online students face while attending to the virtual and real time demands. Despite this understanding, the instructors also underscore the importance for students to remain *in sync*, as described next.

Synchronized Asynchronicity. The phrase used for the title seems paradoxical, yet I am devising this oxymoron to indicate that meaningful interactions in discussion forums need to be coordinated in time, despite their asynchronicity. In other words, the nature of asynchronous discussions allows students to post *when* it is convenient for them within a certain period of time (e.g., weekly, biweekly, monthly). Therefore, as members of the same class, cohort, or learning community, students still need to move along the course modules and activities at the same pace – starting and ending modules, topics, and discussions together as a group. While the sequencing of such activities prescribes the overall course pace, the group develops a tempo based on the discussion timelines. Consequently, students posting at the beginning of the discussion starting date can be considered *early*, and those who post close to or on the end date tend to be perceived as *late*.

Initially, whether students post *early* or *late* seems irrelevant for the instructor's perception of students' participation, as long as the postings satisfy the discussion requirements. However, the timing of posts can impact interaction and engagement. For instance, *late* posts can result in decreased interactions with peers, as Patricia explains: "When people are late, they're out of sync with everybody else. Well, there's a reason why there's nobody there, and that's because they're finished. They moved on."

Even though Patricia's comment concerns virtual sessions where students attend each other's presentations synchronously, it applies to peer-to-peer interactions in asynchronous discussions (as detailed later in this chapter under the second research question). For students to be in sync, they need to develop a sense of *when* their peers mostly interact and join the discussion within the same time frame. In an ideal world, instructors would love for all students to remain in sync for an optimal level of class interaction and engagement. But in this real world, Caitlyn points out that what happens can be entirely different:

> In my experience, basically, regardless of what you do, you're going to have 20-25% who are keeners. They're here and they're really interested, and they often check in because, generally speaking, I think they enjoy that kind of engagement. Then you've got the middling ones who will do their duty, and that's fine. And then you got the ones that no matter what you do, they're just not gonna jump in. So, I think you just can't win them all. You're always trying, but I think students have some responsibility and some preferences for how they prefer to engage.

In this quote, Caitlyn demonstrates respect for students' preferences for engagement, which, in turn, does not deter her from continuously trying to make the course discussions more interesting and beneficial. However, what I want to highlight in Caitlyn's aforementioned

quote is her perception of "keeners", whom she describes as being "here", coming across as "really interested", and "often" checking in. In the following paragraph, I discuss connections that other instructors also make between students' frequency of posting and keenness.

Frequency and Keenness. Depending on several factors, including context, instructors consider the frequency of students' interactions from multiple perspectives. The most positive perspective is depicted in Kacia's narrative about a keen student in one of her past classes, who interacted with peers more frequently than anyone else. Similar to Caitlyn's description of keeners in the previous paragraph, Kacia explains that this particular student was the first to present the assigned work, and she also requested access to a module ahead of time. As portrayed in Kacia's restory in Chapter 5, her keen student was someone whose interactions "with everyone caused the community to keep on going". Clarifying that notion, Kacia comments that this student's interaction "was at a more frequent level" than others. Linking frequency with deeper learning, Kacia also asserts that her keen student's "learning just went leaps and bounds because of that."

Other instructors in this study share Kacia's positive views of students' early and frequent participation in the online course discussions. But similar to their comments about the behavior of instructors perceived as dominating, they recognize that excessive student posting can have a negative effect. Patricia highlights this notion when she says that "students who are posting, posting, posting, they're making everybody else feel like they're inadequate." Patricia clarifies that excessive posting is not limited to frequency, but it also concerns the length of posts – a point that I elaborate on in the next section on eSET.

Instructors' Perceptions of eSET

As mentioned in Chapter 1, I use the acronym eSET in relation to an eNVC subcategory that resembles vocalics in spoken language. I call it *eSET* because it is perceived as a set of cues which combine the *style*, *effort*, and *tone*, expressed in written messages through *electronic* channels. Despite the combination of these cues, there is a slight difference between the style and tone of writing in the discussion forums. More specifically, style refers to the way the post is written, and it includes language elements such as word choice, sentence structure, and punctuation. Whereas tone concerns the writers' attitude towards the topic and/or the readers. Effort, on the other hand, refers to the amount of care, attention, and intentionality that the writer puts into their post. Effort is closely connected with chronemics, and it happens *behind the sc(re)enes* on the writer's emotional and cognitive levels of engagement. Despite that, it can have a great impact on the readers who might perceive effort through the clarity, organization, and conciseness of the post. The merging of the eSET components represent the writer's voice, which also contributes to the impression readers make about who the writer is as a person, as discussed in the next paragraph.

Instructor's (Human) Voice. In the era of conversational AI, like ChatGPT, establishing an instructor *human* voice in discussion forums becomes essential. This voice is embedded in each instructor's eSET, and it reflects their unique qualities and experiences as human beings writing to and communicating with other human beings. Instructors attentive to their students' needs and preferences therefore use their intuition and creativity to craft responses that are tailored to the situation at hand. Addressing this component of the communication process in the discussion forums, Patricia remarks: "Your tone, what you convey through words that give tone that imply empathy or not. I think it's really important

that students understand that you are a human like them." To elaborate on this notion, Patricia explains:

> You might write, "Well look, take all the time you need to do this assignment". Yeah, that's verbal. That's written. But depending on how you word it, you're conveying, "I understand. I've been in your situation". You might even say, "Look, I've had that experience. I understand." It's about how you react to people.

This example that Patricia gives about how she responds to students in ways that convey understanding and empathy beyond the denotation of words brings to mind Casti's experience with his first online instructor. In Cati's restory in Chapter 5, he describes his first online course instructor as "very understanding" because of what she did rather than what she said (or wrote, to be more exact). For instance, "she responded promptly" (reference to chronemics) and showed empathy for his difficult situation through expressions such as: "These things happen in life". Above all, she provided Casti with additional resources tailored to what he was struggling with. Recalling that event, Casti remarks: "…on top of that, she doubled down and, actually, brought me to the people that I needed to talk to. That was a culmination of everything that I thought about her." Casit said these words with deep appreciation for the effort that his instructor made on three levels:

1. Seeing beyond a request to recognize a silent cry for help

2. Searching for suitable resources available for students

3. Sharing these resources with the student (bringing help)

Before I continue discussing the effort component of eSET, I want highlight that the scenarios that Patricia and Casti discuss are quite common in the world of online learning, especially in the pre-COVID-19 era when distance education catered mainly to adult students.

In fact, it happened to me several times, and I was deeply touched by instructors who were sensitive to what I was going through, and distraught when there were others who did not seem to care. While no instructor ever rejected a request I made, some were empathetic and recognized my quiet struggles, and addressed them proactively. Even though addressing my struggles rarely involved providing extra help, I was content to see that the instructor understood my unique circumstances.

The first memory of such an occurrence also happened in my second online course, when I did not know that requesting an extension on an assignment was even possible. At that time, I had a solid writing plan for an assignment that was due at the end of the week. However, this plan was continuously interrupted by a series of unpleasant events that I had to deal with at my children's school. I made a cursory mention of what was happening in my life during that week in the discussion forum, connecting it to the discussion topic. I remember feeling extremely frustrated because I knew that I could not submit my assignment on the due date, but I did not explicitly express it. To my complete surprise, the course instructor sent me an email shortly after I published my post, saying that she understood how difficult the situation might have been for me and my family. She then added that it was fine if I wanted to take a few more days to complete the assignment. Of course, it goes without saying that I felt relieved and validated, then I worked to the best of my ability to submit my paper by the new deadline that my instructor and I agreed on.

This memory is the first of many heartwarming stories I had with remarkable online professors. However, I chose to recount this particular story because it aligns with the notions that Patricia and Casti make about aspects of eNVC, especially effort. Although this eSET

component can be manifested in various ways in the online course, it mainly happens *behind the sc(re)enes,* as I explain next.

Behind the Sc(re)enes. Regarding the instructor's use of eSET, one aspect that is discussed the least is the effort they put into creating positive learning experiences. The findings of this study suggest that this effort can vary among instructors. For example, Kacia mentions her effort in creating extra resources for students who lack knowledge in certain areas. Additionally, both Kacia and Patricia highlight the importance of providing prompt and detailed feedback tailored to each student's needs. However, consistently fulfilling this role throughout the course requires a significant amount of effort and time beyond observable interactions in discussion forums.

Tracking posts is another activity that occurs in the background of discussion forums, as Caitlyn alludes to when she states: "Also, I use this spreadsheet to make sure that I'm hitting everybody." Intrigued to learn more, I inquire about the purpose behind using such a tool, and Caitlyn responds:

> To counter your instincts. You tend to always catch people who are really keen. So, making sure that I was being equitable and really acknowledging everybody in the class, and it's hard when you're going over several weeks … Aside from just tracking who you're talking to when, what's the nature of the post? Like, are you acknowledging somebody's feelings or frustrations? Have they expressed something they're confused about where they could use some guidance? Do you want other people to weigh in more?

Caitlyn further explains that her use of the spreadsheet extends beyond tracking posts. She utilizes it as a convenient reference for students' profiles, based on the information they

share in their mini-biographies at the start of the course. Regarding this, she remarks:

> In my spreadsheet that I use for tracking my comments, I'll note something like if they have kids or not, what their profession or occupation is, and I'll reference that. Like I know that Joey's a dental hygienist, and I've made note of that, then I read his post later and go, "What did he do again?" I go back, and I look, then I find a way to make [my response] more personal and more engaging. You can't do it every time, but I do reference those biographies, and a lot of times, I'll go back and reference them when I'm working on assignments, too, because it helps me to understand where a person might be coming from. If they're struggling, you might know something about that. Like finding out that this one student I had last term had a 13-year-old and a five-year-old, she was working full time and taking two or three courses.

In the aforementioned quotes, Caitlyn frames her effort to create a detailed tracking and reference system within the multiple strategies that she uses to increase student engagement. Though I agree with her perspective, particularly in relation to "acknowledging everybody" and personalizing her responses, I also view the effort that she describes through the lens of instructor engagement. This can lead to a deeper level of understanding of who the students are and what their struggles might be, as shown in Caitlyn's last sentence. The most distinguishing qualities of this instructor engagement are internal, both cognitive and emotional, and they involve being interested, curious, caring, empathetic, focused, attentive, and (especially) creative. The creative part appears when the instructor takes extra steps to adopt a new approach or invent something beyond what is readily available. In Caitlyn's case, it is a tracking and memory system outside the LMS analytics, whereas for Kacia, it is the additional resources that she creates for her students. Regardless of the creative form and format, such

creativity remains driven by the emotional and cognitive dimensions of the instructor

engagement, which mainly happen in the *backstage* of the discussion forums, or *behind the*

sc(re)enes (as I like to call it, although, technically, all communication in online courses

happens among people physically located behind screens).

To conclude this section, I point out that the internal qualities of the unobservable

dimensions of engagement discussed in the previous paragraph are not exclusive to instructors.

They also concern learners driven by several motivators to reach higher levels of interaction

and engagement in their online courses, as shown in the learners' narratives in this study.

However, due to the unseen nature of such qualities, they can be veiled by visible nonverbal

cues that instructors perceive through interactions in discussion forums. While these cues can

overlap over more than one eNVC category, I present them below as eSET, with a focus on the

students' effort perceived through the posting tone and style of writing.

Back and Forth. One of the eSET components that instructors perceive is the effort

that students put into interacting with peers at a deeper level. Patricia illustrates this concept in

Chapter 5 through her narrative about three students who made the effort to form a smaller

group outside the course discussions. The relationships that developed within that group

reflected positively in the course asynchronous discussions and deepened the students'

learning. To describe her perception of this type of interaction, Patricia says:

> I think I saw that interaction and interpreted it as this group was getting quite
>
> comfortable with each other. The feedback was more authentic. It wasn't like, "Oh, you
>
> did such a wonderful job!" It was more like, "Maybe if you do this, or have you thought
>
> about that?" … What they wrote, and *how* they addressed each other. It was not just the
>
> words, but the back and forth.

Dialogue through Questions. The back and forth that Patricia also describes as a form

of asynchronous "dialogic conversation" aligns well with Caitlyn's notion of "dialoguing" that

she models and expects students to mirror through their interactions. This dialogue happens

through an interplay between thought-provoking questions and responses, which Caitlyn

perceives as an indication of students' "real interaction and engagement", as shown in this

quote:

> You want for real interaction and engagement. You want students to learn to critically
>
> question each other. So, I started being really explicit by giving a lot of sentence
>
> starters. And I just do lots of encouragement right at the beginning of the class, say,
>
> "You know, this is what engagement looks like, if you're stuck on how to respond to
>
> somebody, here's some prompts you can use." I had a list of about 10 prompts that you
>
> can use as sentence starters … to prompt them to ask the types of questions that I want
>
> to ask.

Along the same lines, Kacia emphasizes the importance of building up knowledge

within the learning community through questions and answers: "If you don't understand that,

you're going to ask meaningful questions based on what you read. Or you're going to provide

the answers that somebody else requires in order to move on with a level of understanding."

Less is More. When talking about deeper learning through interactions in the discussion

forums, Kacia also focuses on the necessity of synthesizing information because "length has

nothing to do with quality; it has nothing to do with the level of depth of learning". Therefore,

putting effort into keeping postings short adds clarity to the message. To expand on this notion,

Kacia confirms:

> That's what good writing is. It gives the very meat and potatoes to the reader, the very

essence. And once you read it, again, you're going to start eliminating words that are unnecessary. Unnecessary words just take away from the strength of the sentence and the paragraph and the message. Less is more. Write less, and then include more in the essence of your message, and then leave a little room for imagination. Leave them hungry for more, so that they can ask you questions.

In addition to the importance of eliminating unnecessary words for clearer writing, Kacia underscores the value of "less is more", especially in discussion forums where the aim is to *discuss* and not to showcase knowledge. Accordingly, Kacia proposes focusing on the essence of the message and leaving the readers "hungry for more" because "that's what interaction is. I want to learn more … what did you mean by? Why did you say this? What would you do if?".

The flip side of Kacia's remarks is that posts that are too long, particularly in forums where instructors set expectations and word limits, can be perceived negatively, as Patricia points out:

If you say keep your posts to 500 because people get overwhelmed … by posting 1200 words, you are sending a message that "I don't care what the limit was, and I'm going to do more than other people". … What are you doing? Are you showcasing your own knowledge? You can do that in a shorter post. So, people that go far beyond what's required, it sends a message, whether or not the person meant it, it's disrespectful.

Eventually, the actions and perceptions that Patricia discusses in the aforementioned quote have the potential to hinder interactions, as she later explains. This is due to peers feeling overwhelmed and/or intimidated - a perception further discussed from the learners' perspective in the second part of this chapter. In short, discussion-based online courses rely heavily on

textual material, which requires students to dedicate a considerable amount of time to reading

and writing. Mindful of the pressure that this can put on students, Caitlyn says:

> I actually put more limitations on that than I used to because you get ramblers. I just go
>
> like 150 words, that's great! Sometimes, I'll even structure the post, so they're really
>
> specific. And just reminding people to be cognizant of overload and their colleagues'
>
> time. … I'm extremely mindful of what I ask students to read. So, if I'm going to give
>
> them 1000 words, I'm going to make sure it's relevant as best as I can.

This last quote sums up most of the concepts embedded in eSET for both instructors

and students, whose messages in the discussion forums are not limited to the connotations of

words. Instead, they are exchanged through the interweaving of verbal and nonverbal cues that

can be perceived and interpreted as facets of eSET. Examples of such facets include a tone that

reflects interest, conveyed through a style that includes thoughtful questions, resulting from an

effort made *behind the sc(re)enes* to gain a deeper understanding of the people and their

situations. According to the instructors in this study, positive messages exchanged through

eSET can increase interaction and engagement in online course discussion forums, and the

inverse is typically observed. Another eNVC category that intersects with eSET is 2D visuals,

which I discuss separately in the following section from the instructors' perspective.

Instructors Perceptions of 2D Visuals

Although I refer to this category as 2D visuals, I acknowledge that individuals perceive

most aspects of eNVC mainly through vision, except for individuals who rely on the

accessibility features of computers, a topic that merits future research. In the context of this

study, I employ 2D visuals as a comprehensive term for any type of image or static visual

representation, excluding words, which exists within the two-dimensional space of a computer

screen. Examples encompass diagrams, illustrations, infographics, emojis, pictures, photos, and digital art. This definition excludes visuals with animation, motion, or sound due to the complexity of distinguishing eNVC from other forms of nonverbal cues conveyed through such media. Meanwhile, GIFs, which stands for Graphics Interchange Format, are somewhat ambiguous as they can be regarded as either still or moving pictures. Upon examining their formation, they are essentially a short sequence of static images played in a loop to create an illusion of motion, whereas videos are longer and sequential. Therefore, I deem it appropriate to include GIFs within the 2D visuals category of eNVC.

Since this category is closely linked to eSET, it also encompasses its visual manifestations, such as unique formatting or spacing within the posts. For instance, altering the default font features, using colors, italics, paragraph spacing, numbering, and so forth can be perceived as the result of a thoughtful effort to enhance the readability and comprehension of the content. Among all the items categorized under 2D visuals, emoticons, emojis, and Gifs garner the most attention in the text-based digital world. This also reflects in the textual communication within online course discussion forums.

Emojis and Gifs. Instructors in this study provide a range of perspectives on the usage of emojis and Gifs, viewing them as 1) necessary to soften critique and convey positive emotions, and 2) contributing to students' cognitive overload.

As a supporter of the first view, Patricia makes an explicit connection between expressing enthusiasm through the tone of writing and the use of emojis, stating:

> The "tone" and words carefully chosen and put together can convey enthusiasm in asynchronous communication. Some people don't like this, but it's a must for me. Using something like emojis. Saying, "Wow! … Oh, my! That's *really* interesting!".

And then, showing the face or a little Wow symbol of some sort. I think it really does convey enthusiasm. It's easy to misinterpret words, especially if you're saying something and it's probably critical. I might use an emoji if I wanted to make sure the person knows that I am not mad.

Besides employing emojis as substitutes for facial expressions to demonstrate enthusiasm in asynchronous discussions, Patricia also uses emojis to prevent the misinterpretation of critical messages. This notion is echoed in Caitlyn's comments below:

I'm like the only one who uses emojis. It's so weird. Oh, God! I even use them when I'm marking. I use emojis in my comments on my word documents, too. Take a comment where it can sound like a harsh criticism, and then you put a little smile at the end of it, and it says "Hey, it's okay", or put a thumbs up; it's just a nice little way to humanize it, right?

Caitlyn's last statement about humanizing comments can be viewed in relation to the instructor (human) voice discussed in the previous section. Additionally, using emojis in this context can be seen as an expression of the instructor's empathy and care, especially when it originates from a genuine desire to comfort students and reassure them that "it's okay". Through these and other strategies, instructors aim to create and maintain a welcoming learning environment where learners are encouraged to engage conversationally in the discussion forums.

Despite such efforts, it is common for students to think that they need to keep a serious and academic tone while interacting in their online courses. About this point, Caitlyn notes in the aforementioned quote that she is the only one who uses emojis in the course discussions. Linking this perception to student engagement, she explains:

I want people to have some *fun* there. Like, what if you read somebody's post and you

got nothing? … Maybe you don't have anything amazing to say about it, but part of

engagement is people being acknowledged. I remember writing this when I'm trying to

set up the expectations: "Look guys, I want you to write one substantive post here, and I

want you to have a couple of substantive responses to your peers; here's what that looks

like. But you're not going to be penalized if you have some more posts where you

shared a GIF and you say, 'Hey, thanks for sharing that', or crack a joke." … I felt a lot

of them have been conditioned that if they didn't have the game face on all the time,

that it would actually be something that worked against them.

As demonstrated in the above quote, Caitlyn encourages her students to engage with

one another, even when they do not have a thought-provoking response to someone's post. It is

equally important for her to witness students having "some fun" in the discussion forums,

should they wish to. Therefore, she reassures them that they will not be penalized for injecting

humor by posting a GIF or making a joke, as long as they meet the academic expectations set

for the discussions. In the conclusion of her quote, Caitlyn points out that she feels that

students have been conditioned to maintain a serious tone in course discussions. This could be

the result of faculty within the same program "rarely operating from the same sort of

philosophies and understandings with online education", as Caitlyn elaborates later in the

interview.

An example of such dissimilarities is apparent in the perspective that Kacia expresses

towards emojis and GIFs, which she regards as an addition to cognitive overload. About this

topic, Kacia clarifies:

I don't particularly care for those GIFs and emojis and icons and flashing lights because

I think they take away from the cognitive energy that we have. … You know, those

team sites where people post everything, like "Good Morning" with a flashing coffee

mug, another replies, "I'm having tea". The tea is dancing. It's cognitive overload. It

just drains your brain, and you have nothing left to give, or space to receive when the

learning time finally comes.

In this quote, Kacia highlights that the overuse of GIFs, particularly given their

repetitive motion, can detract from the cognitive energy students require for learning. While

this concept seems to be in opposition to Caitlyn's viewpoint on the same topic, it

fundamentally stems from similar foundational principles relating to the intent of using such

nonverbal cues. For instance, Caitlyn encourages students to use GIFs in the context of having

"some fun", thus alluding to the enjoyment aspect of engagement. On the other hand, Kacia

asserts that extensive usage of GIFs can drain the brain, especially when students need to

process learning at the cognitive level of engagement. Consequently, both perspectives suggest

that the purpose of interacting with others in online course discussions can guide the usage and

influence perceptions of eNVC, particularly eSET and 2D visuals.

Refocusing on the discussion purpose along with the need to refrain from over-

utilizing emojis and GIFs resonates with Mehall's (2020) ideas about purposeful online

interactions. As discussed in the Interaction and Learning section of Chapter 2, Mehall

suggests that meaningful interactions directly contribute to building social relationships or

achieving learning outcomes. Regardless, they need to be purposeful, organic, guided, and

focused. In the subsequent paragraph, I delve into how instructors purposefully utilize different

aspects of visualization to enhance the quality of interactions in asynchronous discussions.

Illustrations, Diagrams, and Pictures. As mentioned in the previous paragraph, instructors guide students to use aspects of 2D visuals to improve interactions, especially since discussion-based online courses are largely text-based. The three instructors participating in this study are cognizant of this reality, which can present challenges for both them and the students. To address these challenges, the instructors sometimes experiment with creative visual expressions, encouraging students to utilize forms of 2D visuals such as illustrations, diagrams, and pictures. Regarding this topic, Patricia shares the following narrative:

I used a diagram once in a course when students were having a difficult time writing reflectively. The students loved it. The light bulb went on. So, if you don't try new things, and if you always try to write, write, write, write, and if you don't try to, "Okay, I don't like this that much, but it might help." And in this case, I couldn't believe it. I could not believe it!

At the end of this short narrative, Patricia expresses her surprise at how the diagram she used not only facilitated the students' understanding of reflective writing but also contributed to their emotional engagement. This is evident in her statement about her students loving it, which she also connects to her own growth as an instructor willing to experiment with something other than writing.

Concepts related to the instructor's learning and growth resulting from their adoption of new approaches are also present in Kacia's narratives, particularly the ones shared in her found poem in Chapter 5. Throughout the interview, she talks about additional creative approaches that she transfers from her in-person courses to the online education landscape. Some of these involve asking students to use visual representations, as she describes below:

I'll provide the model so they wouldn't waste the time thinking of all the words to put

in when English is their second, third, fourth or fifth language, and I ask them to visualize the words because it's easier to visualize, for some, than to write … That's how they would represent, or visualize, the concepts they were learning in the class. Why wouldn't they interact? The more they interact, the more they learned; there was no reason not to interact.

In her last remark, Kacia draws connections between visualization, interaction, and learning. To clarify, she explains that the visualization is a one-slide picture or conceptual framework representing the students' understanding of a certain topic. As she states in the aforementioned quote, her rationale for using visualization is not random, but rather based on her students' particular needs and abilities. Bearing in mind their diverse backgrounds and abilities, she realizes that relying on writing alone may hinder the full participation of some students. Thus, she incorporates 2D visuals into course activities to encourage interactions while promoting inclusivity.

Another way to honor students' diversity in a learning environment that primarily relies on text is to acknowledge their preferences when it comes to interactions. Caitlyn makes a point about this topic when she talks about strategies that she uses to build social connections in her online courses. Many of these strategies incorporate the use of 2D visuals, such as asking students to post fun pictures:

Like your favorite shoes and why? Or where are you sitting right now? Take a picture and tell us about it. Actually, I tried to use more and more pictures because it's so text-based. The default is text, text, text, text, text. So over time, I try to find other ways to share, and some of them were more or less successful.

Caitlyn continues to describe various visual tools she has experimented with in her online classes, and the learning that she has taken away from them. When asked about the rationale for using such fun activities, and whether students perceive them as a waste of time, Caitlyn further explains:

> People really want and need different kinds of interaction. Some are quite content to just come in and do their thing and go, and others are really hungry for that social connection. So, it's just trying to make space for it. And even, why not at the beginning of the class? I mean, people generally enjoy it … It's not time consuming. It fosters creativity. It builds a sense of connection. I do think that part of setting up the course right is encouraging an engagement set of some sort.

By "engagement set", Caitlyn means creating the space for students to interact at both the social and subject levels. Having both aspects of purposeful interactions built into the course structure results in a more inclusive online learning environment because it recognizes individual preferences and needs. It also allows students to engage through creative expressions that are associated with deeper learning. Conversely, creating such course structures and not facilitating interaction within them diminishes engagement due to the nonverbal cues associated with silence or absence from the course discussions.

Pause, Absence, and Lack of Response

In face-to-face interactions, silence and pauses in communication are viewed as powerful vocalic cues that perform serve functions, such as regulating turn-taking, indicating a need for additional time to think, or expressing negation without explicitly saying "no" (Burgoon et al., 2022). Regardless of their function, pauses and silence are closely associated with chronemics, as they refer to the duration of a period with *no verbal communication* within

a segment of speech. Since speech is missing from text-based online communication, studies

on online pauses and silence examine them through the lens of chronemics. These studies

typically focus on the length of time between emails, otherwise known as *email response

latency* (Kalman et al., 2013; Kalman & Rafaeli, 2011). But what about the complete absence

from the online course discussions, which is specifically structured for learning through

interactions?

While silence is rarely examined from a "no response" perspective, the nature of

asynchronous discussions and the expectations of online courses suggest that silence in this

particular format can be notably communicative. Therefore, I examine it in this study as a

separate eNVC category, one that includes both absence from the course discussion and pauses

in communication.

Uncomfortable Silence. One of the advantages of asynchronous discussions is the

temporal freedom they provide, allowing students to engage in silent reflection before posting

or responding to others' posts. As presented earlier in this chapter, this temporal freedom is

often accompanied by instructions that set expectations for learning individually and

collectively. While a pause within the period allocated for a specific discussion topic can be

perceived as thinking time, a complete absence from communication or a lack of response

"kills engagement," as Caitlyn declares:

> You go like, "Ask your colleagues good questions", and then they ask a really great
>
> question, and the person never shows up again. Agh! That kills engagement, right?" …
>
> One student I had who did quite poorly in the class, and I did try to engage him quite a
>
> bit early on. … I'd ask him a question, go back at the end of the week, he hadn't been
>
> in the forums for three weeks, he'd never gone back and answered my question. … I'll

still go in and engage, but it has to be a two-way street, but I will definitely try not to

leave anybody unanswered.

In the previous quote, Caitlyn distinguishes between student engagement that's quashed by the lack of peer response, and her own engagement that persists despite the student's lack of communication. However, this kind of instructor engagement won't be productive from a learning perspective unless it is reciprocated. Caitlyn alludes to this idea by emphasizing the necessity of reciprocal involvement in the asynchronous discussions. Regardless of the reason and outcome of student silence, Caitlyn, as the course instructor, strives not to leave anyone unanswered, lest they feel undervalued and ignored — a notion that Patricia elaborates on:

I find that sometimes students get really upset if they're posting something, and nobody is commenting. Nobody is going back in there and saying, "Well, that's a great point!" I think that makes them feel very left out. … So, the absence of response, or the absence of feedback too, sends a message, and it could be one of, "I'm not even gonna bother to reply to you; not even worth my time". … I think we need to be aware that if somebody is off the wall, it feels like they're being ignored. They don't feel valued. So, we have to be conscious of those kinds of emotions, or feelings.

In the above quote, Patricia draws attention to the students' perceptions of silence in the form of a lack of response to their posts in the discussion forums. Beyond the negative feelings this can cause, it sends a message that can be interpreted as "you're not worth my time." Therefore, she advises instructors to be mindful of the adverse effect that a lack of response can have, particularly when it comes from the instructors. Patricia also cautions instructors that if they do not respond to students, "even if the intentions were good on the instructors' part, but they just forgot, the message that [the students] receive is that [the instructors] don't care."

Caitlyn's views about the instructor's silence in the form of a lack of response or extended absence from the course discussions mirror Patricia's comments on the same topic. For instance, learning that an online instructor has not logged into the course site for 20 days alarms Caitlyn, leading her to remark, "What?! Like, what do you get paid for? People are going to feel deserted, and that's not cool."

Understanding how students feel when the instructor is not involved in the online course discussions shows an appreciation of what students value during such interactions. Even if the instructor aims to encourage dialogue among peers and avoid dominating the discussions, students perceive their active presence as motivational, as detailed in the sections that follow in response to the second research question.

Part 2: Learners' Perceptions of eNVC

1b. What aspects of eNVC do learners perceive as promoting or hindering interaction and engagement in asynchronous online course discussions?

To address the second research subquestion mentioned above, I examine narratives of the learner participants in this study, namely Casti, Subee, and Jasmine. In the following sections, I discuss the eNVC that these learners perceive as influencing deeper learning through interaction and engagement in asynchronous discussions. Similar to the findings of the first research subquestion, many notions that the participants share about eNVC pertain to more than one category. However, discussing them under one or the other aims to optimize the flow of the research findings.

Learners' Perceptions of Chronemics

I start with the area of nonverbal communication that Bruneau (2012) describes as binding together all other systems of verbal and nonverbal communication: chronemics. As

discussed earlier in this chapter the Instructors' Perceptions of Chronemics, asynchronous

discussions follow a chronological sequence. This, in turn, impacts perceptions of postings as

being early, timely, or late depending on the expectations set for the course discussions.

Perceptions of *when* a person posts in relation to the discussion timeline influences perceptions

of the person's level of interaction of engagement in the course, as discussed through the lens

of instructors. The same is true for learners, particularly when they observe the most visible

actions of their instructors in relation to the timing of their interactions.

Learners' Perceptions of Instructors' Chronemics. Chapter 5 presents narratives of

learners who discuss the positive impact some of their instructors had on their online

experiences. At times, this impact was powerful to the point that it transformed the learners'

understanding of what good online learning is, and how they can apply it in their own practice

as educators. When describing the actions that shaped their experiences, the learners tend to

focus on their instructors' use of chronemics. For instance, Casti who perceives his first online

instructor as caring and empathetic, also focuses on how organized, helpful, and prompt she

was when responding to messages:

> Before our class even starts, she'd send us an email about what we're talking about this
>
> week, kind of a newsletter. In your head, it's an asynchronous class, but at the same
>
> time, you expect her behavior, like a weekly thing that she does. … So, she's kind of
>
> always there, if that makes sense. And then, on top of that, she's very fast in responding
>
> to messages. …She was always there, like, not as fast as the others, but she was just
>
> there.

In this quote, Casti highlights his instructor's awareness of the challenges students face

with online education, particularly in terms of managing time and planning properly. Based on

this awareness, she used to send them reminders to prepare them for the upcoming activities. The consistency and timing of her reminders contributed to synchronizing the asynchronous activities of the online course. Due to these actions and her level of engagement in the discussions, Casti perceives her as being *always* there, but not as much as the others, therefore indicating that she did not dominate the discussions. To describe her instructor's similar behavior, Jasmine uses the adjective "timely". By posting in a *timely* manner, the instructor conveys an attitude of "mutual respect", as Jasmine also points out.

Along the same lines, Subee shares her thoughts about her second online course instructor:

> Without even knowing her, it just seemed like she had a very easy-going demeanor, and she was very active online. She responded several times in every single thread. And I was really impressed. … [She] was very hands on, not overly, but her voice was in every single thread. And I thought, "Wow! This is great!" It just inspired me to write more, and to respond to more people, because I knew she would be in there reading them. You *knew* she read everything.

In this quote, Subee's perception of her instructor reading everything parallels Casti's perception of his instructor being always there. Time spent in the threads, reading and responding when needed, can be seen as a manifestation of the instructor's high levels of engagement. As Subee mentions at the end of the aforementioned quote, this instructor engagement is impressive, inspirational, and motivational. From a practical perspective, the result is higher levels of peer-to-peer interactions, revealed by Subee's comment on how knowing that the instructor was reading everything inspired her to respond to more people.

On the flip side, Jasmine shares perceptions of another instructor that taught her online, saying: "I didn't find the instructor that taught us to be very engaging. I didn't find her to say anything super insightful. I found that she would post very late anyway. There wasn't consistent feedback." In this quote, Jasmine describes her instructor as being not engaging, in the sense that the instructor's actions did not inspire relationship building amongst peers. Jasmine also remarks that the instructor's feedback was not consistent, her posts were late, once again drawing connections between perceptions related to the chronemic code and engagement. However, since this course was towards the end of her online program, the instructor's behavior had no impact on Jasmine's involvement with the course discussions or on building connections with peers in the same course. This stands in stark contrast with her first online experiences where discussions and other course requirements put enormous pressure on her time, as presented in the following paragraphs.

Balancing Virtual and Real Time. Unlike online learning during COVID-19, which was compulsory, pre-pandemic distance education appealed mostly to adult learners, mainly because of its convenience in relation to time. These notions are apparent in the learners' narratives and found poems (see Chapter 5). In this regard, Casti justifies his choice for enrolling in an online program saying: "Frankly, the main reason why I took online was for convenience because it'll save me some time, like, just the commute itself takes a long time." Similarly, Jasmine describes the factors that influenced her decision to study online saying, "I like the flexibility; I know when the deadlines are, I can map them into my day planner". While these remarks resonate with many adult learners who enrolled in a fully online program prior to COVID-19, the frustrations of online learning also echo true, surprisingly for the same reason that made them choose online to start with: Time.

Learners who manage their time well for in-person and virtual synchronous courses may face the challenge of keeping up with the asynchronous discussions as well as the self-directed readings and written assignments associated with fully online courses. About these challenges, Jasmine narrates:

> I actually loved the discussion part, but I also found it to be very time-consuming because I didn't want to just give a response for the sake of giving a response, I wanted to really engage with what was being discussed. …This is the first time where all this was required….and a lot of my weekends would be taken up by me catching up.

In the aforementioned quote, Jasmine sums up the challenges that first-time online learners face, particularly when they intend to make meaningful contributions to the asynchronous discussions. Her mention of spending the weekends catching up with the coursework illustrates the difficulties learners face when they live and function in a dual time dimension, *real* and *virtual*. As discussed in the Time Away from Interactions section of this chapter, while the *virtual* dimension liberates discussions from their temporal constraints, it intersects with the *real* dimension and competes over the learners' focus. This type of time pressure can also impact perceptions of the online learning experiences, as Jasmine points out when she says:

> During my first courses, there were outside stressors impacting my experience as well, and I think I was imprinting those on to the online experience. I was like, "Oh, this is not enjoyable. What am I doing? Why am I doing this? Why am I paying for this? This is so much more work than I thought it would be."… In addition to the stuff that I had to do for my job, I had a lot to do for my courses. So, I was very stressed. Plus, I was dealing with a medical condition that was being exacerbated by the extra burdens and

pressures.

Jasmine draws attention to the issues learners with a full-time job face when pursuing online education, particularly when they sacrifice their time away from work to catch up on their coursework. For Jasmine, this was on the weekends. Posting on these days also meant participating towards the end of the discussion timeline. This, eventually, lessened her chances of receiving peer feedback as she describes below:

> There were some people who were so on top of it; they would do it right at the beginning of the week when the post was released. By the time I got to it, everybody had kind of responded to everybody else. So, I found it challenging that when I put my response in, I wouldn't get much feedback on my own responses.

As shown in the quote above, Jasmine's real time obligations and desire to make quality contributions influenced her actions in relation to the chronemic code (posting late). Consequently, these actions limited her interactions with peers and engagement with others in the course discussions. Facing similar situations, some learners juggling multiple responsibilities pause their learning, while others cope by finding a way to work effectively with both time dimensions. Oftentimes, this requires sacrificing some real-time activities. In the case of parents caring for young children or individuals looking after aging parents, even sleeping time can be sacrificed for the same purpose. This eventually impacts the person's overall well-being, which, potentially, influences perceptions of the online learning experience.

On the other hand, once the weight of some real time obligations is reduced, the online experience can be perceived as enjoyable and productive. This is evident in the narratives of Jasmine and Subee who talk about their exposure to difficult online courses in the summer (see Chapter 5). Since both Subee and Jasmine are schoolteachers, they do not work in the summer,

so they have more time to engage in the activities of their online courses on the emotional and cognitive levels. It is worth noting at this point that Subee and Jasmine live in Canada, where summertime is characterized by warm, pleasant weather and bright, long days that create a positive and energized atmosphere. In the metaphorical sense, this season also represents a time of growth, progress, and flourishing, which I find comparable to the transformation that Subee and Jasmine went through following their experiences with the online courses that they took in the summertime.

Time and Growth. One representation of the growth mentioned in the previous paragraph is manifested in Jasmine's realization that the lack of response to her posts was related to timing rather than her ideas or ethnic sounding name. Therefore, adjusting the timing of her posts improved interactions, as she explains: "Because of my prior experiences with discussions, I'm like let me try posting earlier. So, I did see that people would respond."

Another sign of that growth is depicted in Subee's narratives, when she talks about her preference regarding the timing of posting in the discussion forums:

> I'm one of these people that need time to reflect on things. I really do. I need to mull it over and over in my head, over one or two days, and then I can start talking about it. … So, asynchronistic works really well for me. Maybe I'm just more reflective, and maybe I'm slow in the head. I don't know. I just needed time to think about it. …the keeners already said what they needed to say, and they already done their three posts by Wednesday/Thursday, and we were just starting to post on Thursday. We were the Thursday/Friday club.

Aware of her reflective nature that prompts her to take time and space away from the course discussions to mull things over before contributing, Subee follows a pattern for posting

on certain days of the week. Since I did the same when we studied together, she jokingly calls our behavior the "Thursday/Friday Club" in the aforementioned quote. Interacting with the same group of people regularly due to the timing of their posts can evolve to building peer-to-peer connections that motivate individuals to engage at a deeper and/or more frequent level in the course discussions. Subee expresses this notion when she says: "Actually, as soon as I started on the fourth course, then I just went crazy with 10 replies, I think. I thought, 'Oh, why not? Let's just keep going.'" By specifying the number of replies as being 10, Subee indicates exceeding the discussion requirements extensively, mainly as a result of her deliberate effort not to leave anyone's original post unanswered. This relates to the next section about silence in the form of no communication or lack of response.

Learners' Perceptions of No Response

As presented in the discussion of silence in Part 1, and reiterated in the previous section, a short period of time away from the course discussions can be viewed as silence needed for reflection. However, absence of communication reflected through the lack of response is often viewed in relation to respect, as shown in the narratives of the participants. About this matter, Subee comments:

> A lack of response shows disrespect to me. You are respecting the people enough even to say, "Wow, I really enjoyed that post", or "Wow! I have nothing to reply to that, you said it all", or something like that.

These words echo the instructors' viewpoints on the same topic, particularly Caitlyn's remarks about the significance of acknowledging someone's posts as a part of engagement. The opposite can also result in disengagement, as Casti alludes to when responding to the question about his reaction to not having any feedback to his posts:

> Oooh it will be like, "All right! See you guys later." I mean, honestly, it would be like, "What the hell?" It's like my opinion is not heard. My feeling for that one is like my contribution is not enough. What I'm saying doesn't make sense, and that's why they're not responding. …So, if that happens, I will respond to other people's messages still, but me starting a conversation? I probably won't, and that's because it's like embarrassment; just like crickets.

Casti clarifies that he "was fortunate enough to not have that experience", unlike Jasmine whose experience with "no response" impacted her first online learning experiences. About this matter, Jasmine explains:

> I know how it feels when someone doesn't respond back to me, it creates anxiety, it creates anger, it creates frustration, or it creates a kind of desperation, and your mind starts to spiral. I know that from my own experience.

While the feelings that Jasmine lists seem exaggerated in the context of "no response" from peers, they seem believable in the context of "no response" from instructors to the students' direct queries. This is why, in her teaching practice, Jasmine puts time and effort to make sure to address her online students' queries promptly. These are some of the good practices that Jasmine and the other learners acquired by firstly observing the actions of their online instructors, and secondly, emulating the ones they perceived as contributing to their positive learning experiences. These actions are mostly related to the eSET category of eNVC, as presented in the following section.

Learners' Perceptions of eSET

Linking back to the Behind the Sc(re)enes section of this chapter, the quiet effort that instructors put into their online courses does not go unnoticed. Instead, learners perceive it

along with the tone and style of the instructor's writing as a full set that portrays the human

nature of the instructor. Using eSET cues and others related to chronemics, learners draw a

mental picture and/or voice of their instructor's personal characteristics - even if the learners

have neither seen nor heard this instructor. These concepts are apparent in the words and

expressions that the learners participating in this study use to describe their online instructors

who had a positive impact on their online learning experiences.

For instance, some of the expressions that Casti uses when talking about his first online

course instructor are: God bless her; curious; she actually listens; very kind; very, very nice;

very, very, very understanding; prompt with the messages; fast in responding, but not as fast as

the others; just there.

Similarly, Subee describes her second online course instructor as someone with a very

easy-going demeanor; involved; committed; inspiring; very active online; very hands on, not

overly; her voice was in every single thread; very soft, caring voice.

Along the same lines, Jasmine describes her methodology instructor using these words:

phenomenal; really engaged; helped people feel included; responded to everyone; made people

feel seen and heard; timely; respectful; concise; genuinely present in the moment."

It is noticeable that despite their variation, the expressions that Casti, Subee, and Jasmine

use to describe their instructors refer to similar personal characteristics. While many of these

characteristics relate to the chronemic code (e.g., prompt, responsive), others concern the style

and tone of writing that reflect the Instructor's (Human) Voice (as discussed in Part 1 of this

chapter). Mastering the art of using eNVC related to eSET and chronemics elevates the

instructors' ability to strike the "balance" that Caitlyn and Patricia describe when they talk

about participating in the course discussions without oversteering them. Along the same lines,

the narratives of Subee, Casti, and Jasmine demonstrate their appreciation for their instructors'

ability to establish and maintain such an equilibrium. This is shown in their lexical choices,

particularly when they use phrases such as:

- fast in responding, *but not as fast as other*s;

- very hands-on, *not overly*; and

- *concise*.

The last point is one that the three learners emphasize when they discuss the postings of

their instructors. In this regard, the learners show admiration for their instructors' ability to be

simultaneously deep and concise. An example of this admiration is found is Jasmine's restory,

particularly when she talks about the learning that she took away from her methodology

course, saying:

> Another lesson I took away from that specific course is that it is not about the quantity;
>
> it is about the quality. [The instructor's] responses were so concise, and that was the
>
> first time I saw in higher learning you can make an impact with just few words. It
>
> doesn't have to be this long-winded speech.

Jasmine's last comment about making "an impact with just few words" underscores the

importance of quality over quantity when posting in the discussion forums. This key principle

is not exclusive to the instructor's contributions, as the learners in this study point out when

they tell stories about their peers' lengthy posts. As seen in the Less Is More section of this

chapter, writing concisely can be considered as the result of the writer's intentional effort to

improve the readability of their posts and encourage interaction. Conversely, lengthy posts

overwhelm students and discourage interaction, as discussed in the next paragraph.

Noisy Length. "Keep our writing concise, to the point, and understandable." In this quote, Subee expresses similar viewpoints to those of the instructors about the importance of avoiding lengthy posts. She attributes the reason to the text-heavy nature of online discussion-based courses, as she explains later on:

When you're going through a program, there's so much reading, so much writing, and so much of everything else going on that you really don't want to focus on one post and have to read, and reread it, and reread it to understand it. It has to be well-written, good flow and within the limits of the words. I think the last course that we did, I just skipped over the ones that were too long.

Subee's strategy of skipping over long posts is not unusual for online learners, but it is unusual for her because she typically reads every single post. Adjusting her approach based on the length of posts reflects a coping mechanism that online students develop to avoid being overwhelmed. While this can negatively impact interactions, students sometimes select what posts to read/reply to based on length when they realize that maintaining pace with essay-like postings can intensify the pressure of online learning. About this point, Casti remarks based on his experience in his second online course:

On my second class, our professor told us not to put essays, but that was later on. Some of the students were too enthusiastic in terms of their responses – theirs were too long and then some people would add on to that. I think it created too much noise to the point that it got kind of hard for some students to follow that conversation. So, my professor – I remember this very vividly – emailed us saying, "When you're responding, try to keep it maybe one paragraph". What also happens is that, as people are responding that long, other students are responding that long as well, which is not

good for the other students who maybe don't really have much to say.

What resonates with me in this aforementioned quote is Casti's use of the word "noise" to describe lengthy posts. Casti perceives this type of *visual* and *cognitive noise* as interfering with the students' ability to follow discussions. According to Casti, when students read long posts, they either feel obligated to match the length when posting themselves, or intimated if they do not have "much to say". Either way, excessive length can be stressful, and it sometimes is necessary for instructors to interfere, in the same manner that Casti's instructor did, and emphasize the importance of keeping posts succinct and meaningful. Eventually, this requires a considerable amount of effort, as an aspect of eSET geared towards improving interactions with peers in the discussion forums.

Curiosity, Enthusiasm, and Questions. Tone and style are other aspects of eSET that the narratives of learners focus on. For instance, as seen in Casti's restory, he describes the experienced students in his first online class as "curious" and "enthusiastic". When prompted to justify his choice of such adjectives to describe people he only interacted with through writing in the discussion forums, Casti explains:

> The primary factor for determining enthusiasm are the questions…. You say something, but they pick up small details on what you said and build on that by asking questions. The curiosity from them, and wanting to have that engagement was quite interesting, and then quite good. … So, they're really trying to engage with you. You feel they want to talk more because they're asking questions. …They have depth when they ask questions. So, when I see that they're enthusiastic, it's like, "Oh, this is how I should conduct myself", and I become kind of like them.

In this quote, Casti emphasizes the importance of using questions to create a tone of curiosity and enthusiasm. His stories about engaging with peers by building on their ideas and asking questions that show "depth" align with the notions discussed in the Dialogue through Questions section of this chapter, where instructors talk about modeling the interplay between questions and responses for students to follow. While Casti recognizes the role instructors play in this regard, he also highlights the value of observing and replicating peers' eSET. This type of learning not only applies to the writing style and tone but also extends to the effort the person makes to the length and format of posts. It is important to note that these aspects of eSET overlap with the category of 2D visuals, which is why I discuss it in the next section below.

Learners' Perceptions of 2D Visuals

In this study, learners consider the visual aspect of a posting to be of considerable importance, which can be attributed to the intentional efforts made by writers to enhance clarity and readability of their ideas. Linking back to the last quote in the previous section, Casti further elaborates on his peers' approach to formatting posts for optimal engagement, emphasizing the significance of spaces between paragraphs. He even gestures with his hands to illustrate how points are arranged into separate paragraphs, saying, "When they're responding to you, it's like point, and there is another point here."

Casti also explains that the first point in crafting an effective response to someone's posting is to build upon what the other person has already written. This can be followed by another paragraph with thought-provoking questions that indicate interest, enthusiasm, and curiosity. As a new online learner, Casti was so impressed by this particular way of responding to his more experienced peers used that he began to emulate it himself. "In my first course,"

Casti comments, "I literally just copied their format: the way they wrote, the way they replied, their enthusiasm, and sometimes even the time they responded."

Images and Pictures. In the last quote of the previous paragraph, Casti highlights various forms of eNVC that he learned from his peers in his first online course, including chronemics and eSET. He also recognizes the significance of the post format as an aspect of 2D visuals that can affect interaction and engagement. Additionally, images and pictures are also essential 2D visuals that can influence engagement and interaction. This is a point emphasized in Casti's restory, where he describes how the photos that his peers posted helped interaction because "Putting a face behind that name definitely spurred conversation again." Casti's comments underscore the importance of using images to create a sense of social connection and encourage interaction in an online setting.

Subee's experience further supports this idea. In her narrative, she recalls a moment from one of her courses where she shared pictures that led to increased interaction and engagement. According to Subee, "People were interacting with that." This quote highlights how images can elicit a response and promote conversation among peers in the course discussion forums. Subee also emphasizes the value of posting profile pictures along with personal information, stating that she "enjoyed reading all those" and during the course, she often "went back to look at the pictures." For Subee, having a visual representation of her peers helped her to form a better understanding of who they are. As she notes, "when I'm talking to them, it's not just a blank slate, it gives more meaning when I know what a person looks like, and I can put that picture in my head."

Casti and Subee's experiences demonstrate how the use of images and pictures can foster a more engaging and interactive online learning environment. By humanizing

participants and promoting social connections, 2D visuals can play a significant role in online discussions. Jasmine takes this idea further by suggesting that intentional use of 2D visuals can enhance interactions, especially at the beginning of a course. As she puts it:

> Maybe introduce yourself through an emoji; maybe introduce yourself through an animal that best represents you. Put an image of an animal and then have us guess why you've picked that animal, so we can learn more about you. For example, I will be a tiger because I like to be isolated at times, but then I'll come together with the people I care about…This allows for a fun activity that can help us get to know each other in a more creative way.

In the aforementioned quote, Jasmine draws a connection between 2D visuals, creativity, and fun. This is reminiscent of Caitlyn's suggestion to inject humor to discussion forums through the use of GIFs (see Emojis and GIFs section). The experiences of Casti, Subee, and Jasmine, along with their views on the use of eNVC, align with the concept of humanizing the online experience discussed earlier in this chapter. They highlight the importance of various forms of eNVC, such as images and pictures, in creating a sense of social connection and promoting engagement and interaction in discussion-based online courses. Therefore, it is essential to acknowledge the potential impact of such eNVC categories and deliberately use them, as suggested by Jasmine, to create an enjoyable and engaging online learning environment.

Chapter 7 Summary

Chapter 7, titled *Irregular Hatching*, offers a detailed exploration of findings, insights, and new understandings related to eNVC and their influence on deeper learning through interaction and engagement in asynchronous online course discussions. These insights aim to

address the two research subquestions and emerge from the analysis of the participants'

interviews, coupled with my tapestry-making experiences.

The chapter is organized into two parts. The first part focuses on insights derived from

instructors, while the second part delves into the learners' perspectives. Examination of

narratives from both groups aims to broaden understanding of how they perceive eNVC

influencing their interaction, engagement, and consequently, deeper learning in asynchronous

discussions. Findings from this chapter contribute towards addressing the main research

questions and provide a basis for discussing the study themes and recommendations, which I

present in the upcoming chapter.

CHAPTER 8

ENVC & DEEPER LEARNING

WEFT BUNDLING

Threads of stories, beams of light,
Craft a spectrum, vibrant, bright.
Bundles capture research themes,
Of a journey full of dreams.

Chapter 8: Weft Bundling

(Themes and Recommendations)

In this chapter, I present the themes and recommendations of my study, which draw on the interview analysis presented in Chapter 7 and my own reflexivity through weaving as discussed in Chapter 6. As a researcher-weaver and a deeper learner, I integrate my own tapestry-making experiences with the narratives of the research participants to present perspectives that address the two main research questions.

The chapter consists of two parts. In the first, I delve into the identified themes, and thereby answer the first research question about aspects of eNVC that contribute to deeper learning through interaction and engagement in online course discussion forums. In the second, I present recommendations that emerged from the inter-storied responses of instructors and learners. These recommendations address the second research question by providing insights for improving the asynchronous online learning experience. Some of these recommendations can also be valuable for the professional development of instructors transitioning to the online teaching landscape.

Taking its cue from a tapestry-making technique, the title of this chapter, *Weft Bundling*, embodies the process of merging multiple strands before weaving them through the warp threads. This technique allows for the fusion of different colors to generate a gradient effect, ultimately producing a tapestry that is not only aesthetically pleasing but also more robust. *Weft Bundling* aptly reflects my approach in this chapter, where I weave together my experiences with those of the participants to create a richer understanding of the research puzzle. It also echoes the practice of conducting an artographic study like this one. As Irwin et al. (2018) outline, artography involves interweaving diverse materials, perspectives, and ways

of knowing to generate nuanced insights. With its inherent reflexivity, artography values integrating multiple viewpoints through artistic and textual expressions to construct multilayered meanings (Irwin, 2013; LeBlanc & Irwin, 2019). The interweaving nature of artography, along with its reflexivity and collaborative meaning-making, led to the rich thematic findings, recommendations, and discussion I uncover in this chapter.

Part 1: Themes

1. What aspects of eNVC contribute towards interaction and engagement that lead to deeper learning in the asynchronous, discussion-based online learning environment?

To answer the main research question above, I identified four themes by blending my own experiences with the ones of the participants. The four themes are: To and Fro Again, Negative Space, Reflexive Apprenticeship, and Layered Growth (see Figure 35).

Rather than being arranged in a specific sequence, the themes are intertwined, like the threads of my dissertation tapestry. The integration of these four themes results in a deeper level of learning for both educators and learners in discussion-based online courses. The continuous, spiral-like movement of deeper learning is represented by the concentric circles surrounding the themes, where it emerges at the intersection of mastery, identity, and creativity (Mehta & Fine, 2019). At the core of these themes lies the importance of questioning, which is represented by a mirrored question mark in the middle of the illustration.

Figure 35

Themes Illustration
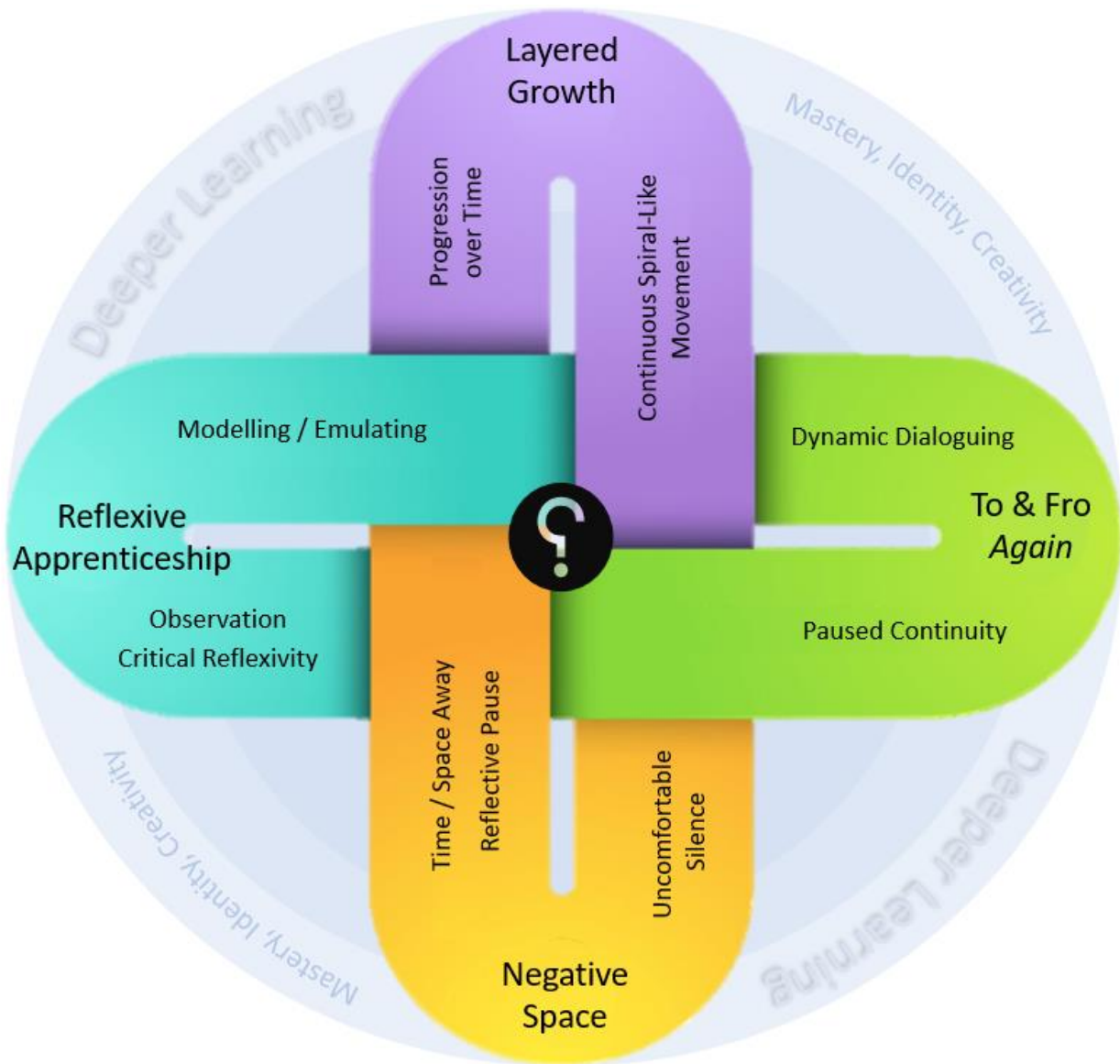
Mirrored Question Mark

As shown in the Themes Illustration (Figure 35), a mirrored question mark is at the center of the interwoven themes emerging from this study. My decision to represent question mark in this way is driven by two main reasons. Linking back to Arabic writing in the Research Rationale section of Chapter 1, the first reason serves to acknowledge my Lebanese heritage

and Arabic-speaking background. Therefore, this design choice is a reflection of my intention to integrate my whole *self* into my research. As discussed in Chapter 6, Arabic is written from right to left, a convention that also applies to the Arabic question mark. In this context, the mirrored question mark symbolizes my ongoing exploratory journey of weaving the weft yarn from left to right and vice versa. This motion resonates with my experience as a bilingual researcher, as it replicates the rhythm of weaving from right to left and left to right that I embraced while crafting my dissertation tapestry. Moreover, the Arabic question mark carries the literal connotation of a "mark that seeks understanding and clarification" – a concept that I wish to spotlight in this illustration. This is especially significant as the queries at the heart of the study themes extend beyond basic information gathering. Instead, they encapsulate elements of curiosity, interest, enthusiasm, wonder, and, at times, disruption of thinking through reflexivity - which brings me to the second reason of my design choice.

So, the second reason is that the mirrored question mark stands as a metaphor for the methodological approach that underpins this study, particularly the reflexive aspect of artography. Throughout the research process, I made a conscious effort to pause and critically examine my assumptions and practices. This introspection was a crucial part of my methodology to ensure the authenticity of the participants' and my own narratives. This approach parallels the weaver's repetitive action of peering through warp threads into a mirror, discussed in Chapters 3 and 6 and illustrated in Figure 27. Engaging in this repetitive act of examining my actions and assumptions through an imaginary mirror while weaving allowed me to broaden my understanding of my *self* and the topic under study. In this context, the mirrored question mark evokes the moments of enlightenment I encountered during the course of this study, symbolizing insights gleaned while weaving the participants' and my own

narrative threads into the dissertation tapestry. The incorporation of this symbol serves as a constant reminder of the reflexive process that I adopted, and it encourages others to engage in reflexive thinking while participating in online course discussions.

Therefore, the illustration in Figure 35 aims to convey that by weaving the study themes through ongoing questioning to seek understanding, a bundle weft of perspectives is formed, ultimately raising awareness of how eNVC can promote deeper learning. In the following sections, I discuss each of these themes, focusing on how they contribute to addressing the first main research question.

To & Fro Again

The theme To and Fro Again emphasizes the continuous nature of interactions and dialogues that take place within online course discussion forums. Inspired by the repetitive back-and-forth motion that I experienced while weaving my tapestry, I explore how the exchange of ideas, experiences, and feedback through interaction and engagement in asynchronous discussions can enhance the depth and breadth of learning. The word *Again* in the title of this theme relates to the eNVC category of chronemics, which emphasizes that these interactions take place over time, much like the back-and-forth motion of weaving a tapestry. The frequency and timeliness of responses and feedback are essential elements in this learning process, as underscored by the participants' narratives.

Paused Continuity. Online course discussion forums provide a platform for learners to continuously share ideas, experiences, and feedback throughout the duration of the course. However, the asynchronous yet relationally continuous nature of these interactions allows learners to engage in reflexive thinking due to pauses in the discussions. Jasmine, a learner participant in this study, emphasizes the importance of such pauses when reflecting on her

methodology instructor's teaching approach. In her narratives, Jasmine describes this instructor as someone who provided timely feedback while also giving sufficient time to process and incorporate it. This approach influenced Jasmine's online teaching practices during the COVID pandemic. Reflecting on her own online learning experiences, Jasmine understands the significance of providing students with frequent and timely responses to help them identify the points they need to develop their learning.

Jasmine's experience provides an excellent example of how the loop of meaningful interactions and reflections, facilitated by the eNVC category of chronemics, contributes to the mastery virtue of deeper learning. Experiencing this as a learner has transformed Jasmine's identity and practice as a teacher, shaping her approach to online teaching and deeper learning.

Linking back to the discussion of deeper learning in Section 4 of Chapter 2, I highlight here that at the heart of deeper learning is identity, as learners develop a sense of who they are and who they can become through their learning experiences. The connection between the To and Fro Again theme and the eNVC category of chronemics underscores the importance of timely interactions. This is especially relevant for deeper learning, particularly at the identity level. Taking enough time to process and incorporate learning received through these interactions is equally crucial. This approach not only improves learning but also fosters a stronger sense of *self* as learners evolve and grow.

Dynamic Dialoguing. In addition to timely feedback, engaging in dialogue is an essential component of discussion-based online courses, enabling dynamic exchanges of ideas between students and instructors and among students themselves. The theme To and Fro Again emphasizes the importance of these ongoing interactions in fostering deeper learning through dialoguing, with several eNVC playing a significant role in facilitating these exchanges,

including 2D Visuals as discussed in Chapter 7. Participants in this study highlight the level of depth that such dialogues can achieve. For instance, Caitlyn, an instructor participant, shares her perspective on the value of dialogue in online discussion threads: "There's just a level of substance in that dialogue in the discussion threads that I've generally found harder to simulate or create in face-to-face classrooms." This quote underscores the unique advantages of online learning environments, primarily due to the time that learners can take to reflect deeply and prepare a visual representation of their ideas before posting or replying. In these settings, thoughtful dialogues can thrive and foster a more engaging learning experience. Along the same lines, Patricia, another instructor participant, comments on the dialogic interactions among her students, connecting them to deeper learning through meaning-making.

However, to encourage the back-and-forth nature inherent in the To and Fro Again theme, it is essential for individuals to keep their posts concise and focused, which relates to the eSET category of eNVC. Casti, a learner participant, highlights the importance of being mindful of post length in online discussion forums as a means of encouraging engagement and response from other participants: "I mean, when a student posts, another student responds with one or two points, then someone else has one or two points instead of five." This approach not only streamlines the dialogue but also encourages learners to engage with each other without feeling overwhelmed.

Feeling Heard. Another vital aspect of eNVC, specifically eSET, is the writing style and tone that conveys positive attitudes or emotions concerning the topics discussed as well as the online course participants. As discussed in Chapter 7, enthusiasm, curiosity, and empathy, demonstrated by both learners and instructors, significantly contribute to creating an engaging and supportive learning environment that fosters deeper learning within the To and Fro Again

theme. According to the study participants, these emotions and attitudes are visible through eSET, especially in the choice of words and the effort put forth to maintain a human voice that fosters a sense of connection and engagement among participants. About this matter, Patricia, an instructor participant, emphasizes the impact of an empathetic tone and caring attitude on deeper learning: "I want students to know that I do care. I think learning is better in environments where people feel that they are heard." This approach underscores the importance of using eSET to nurture an atmosphere where students feel respected, valued, and supported, which in turn can enhance learning through meaningful interactions where every person feels heard and valued.

Connections and Comfort. Likemindedness and social connections are also key factors in creating an engaging online learning experience that fosters deeper learning through the To and Fro Again theme. When learners feel connected to their peers and instructor and share a sense of understanding, they are more likely to actively participate in the online course discussions. Jasmine, a learner participant, confirms this notion as she describes the connections she made with likeminded peers. These connections encouraged her to share experiences at a deeper level:

> There was something deeper and more personal…. So, it made me more comfortable to want to share even more of my own experiences. I feel like that built that tapestry; that led to us just continuously connecting on a deeper, deeper, deeper, and more personal level.

This quote demonstrates the power of shared perspectives and experiences in fostering a sense of belonging and trust among learners. As discussed in Chapter 7, achieving this requires effort *behind the sc(re)enes*, such as reading, understanding, and remembering specifics about

the course participants. This relates to the effort component of eSET, as noted by Jasmine and the other study participants. Ultimately, this effort leads to more open and meaningful discussions, thus enhancing the depth of learning.

Furthermore, asking questions and expressing genuine interest in peers' perspectives are instrumental within the To and Fro Again theme. These practices encourage dialogue, create a sense of engagement, and stimulate further discussions. The importance of social connections in discussion-based online courses cannot be overstated. When learners experience a sense of community and rapport with their peers, they are more likely to actively engage in the course discussions, resulting in an enriching and rewarding learning experience. Casti comments on this, linking it to the sense of community he experienced in his first online course:

> I really found the utility of the social aspect and how, if you can facilitate that social engagement with the students, other things will follow. Engagement for students is a problem, but I find those opportunities for them to have those conversations, getting to know each other, and creating rapport with each other. …It's, in some ways, my A priority…It's very powerful.

Even though Casti took part in this study as a learner, his experiences in his first online course led to a transformative realization. Recognizing the power of social interactions in fostering engagement, he began to prioritize these connections in his own approach to online teaching. This shift in perspective speaks to the identity aspect of Casti's deeper learning journey, influencing not only his understanding of the subject matter but also shaping his sense of *self* as an educator.

To sum up, the To and Fro Again theme highlights the significance of dynamic dialoguing, feeling heard, and forming connections in fostering deeper learning within the

online course asynchronous discussions. The continuous and punctuated exchange of ideas and ongoing efforts of learners and instructors, evident through their use of eNVC, are vital in shaping an engaging, supportive online learning environment that nurtures belonging and identity.

Negative Space

The theme of Negative Space in online course discussion forums draws inspiration from its application in the world of art, where it refers to the area around and between objects, shapes, and forms. This notion aligns with the emphasis of artography on liminality what resides in the margins of dominant discourse (Sinner et al., 2018). Accordingly, this theme can be described as the void, emptiness, or absence of content in a composition and is often used to create balance, contrast, and emphasis in a piece of art. Similarly, in online course discussion forums, Negative Space refers to the *time* and *space* that students take away from the stimulation of the course discussions with the instructor and peers.

In my dissertation tapestry, I utilized the technique of negative weaving to visually and tangibly convey notions embedded in the Negative Space theme. By intentionally leaving certain parts of the tapestry unwoven, the shapes were defined by the absence of weft yarn, rather than its presence. This unique approach allowed me to express specific ideas about my study topic, which were inspired by insights from the participants' interviews. The shapes emerging from this process mainly emphasize the interplay between the woven and non-woven areas, effectively embodying the complex intertwining of verbal and nonverbal explored in my research.

Figure 36

Negative Space Weaving – Communicative Aspect of Nonverbal Cues

As shown in the picture above (Figure 36), I used the concept of negative space to illustrate a key idea: the lack of verbal communication in online course discussion forums does not equate to a complete absence of communication. To represent this, I deliberately left a portion of the tapestry unwoven, revealing the warp – the vertical threads usually hidden by the horizontal weft.

In the context of my tapestry, the warp symbolizes eNVC, while the weft represents written words. Therefore, negative space weaving effectively demonstrates how meaning is constructed even in the absence of verbal cues. As visible in the Figure 36, the unwoven section creates a distinct shape, defined by the boundaries of the surrounding woven areas. This process mirrors how meaning-making can occur through the interplay of verbal and nonverbal cues within asynchronous discussions.

In addition to clarifying the intertwining of verbal and nonverbal cues, the theme of Negative Space in this study refers to the time and space away from active participation in

online course discussions. This type of Negative Space has the potential to establish a balance between observable and non-observable engagement dimensions. It can also serve as a buffer, providing learners with the temporal freedom to assimilate feedback from instructors or peers, enabling them to refine their work and improve their performance in their pursuit of mastery (as discussed in the Paused Continuity section of this chapter). It is worth noting, however, that Negative Space can have both positive and negative implications, which I explore in the following sections in light of its potential impact on deeper learning.

Catalyst for Deeper Learning. Despite the *negative* connotation embedded in the theme title, Negative Space can be a powerful catalyst for deeper learning in online discussion-based courses, particularly through the chronemics category of eNVC. A primary positive implication of Negative Space is that it provides learners with the opportunity to *temporarily* withdraw from active course discussions. These pauses allow learners to process information and connect ideas, promoting reflection and a deeper understanding of the course material and topics discussed. This notion is perfectly encapsulated in the words of Kacia, an instructor participant, who asserts that the brain needs time and space. As mentioned in Chapter 7, to elaborate on this quote, Kacia gives the example of a student who completes her online course work after feeding her baby at two am; Kacia continues: "Don't make me do this at nine am when we are in session via Zoom, WebEx, Teams, or whatever platform is being used. That's not the way the brain works."

Kacia's aforementioned quote not only highlights the brain's need for time and space to cultivate deeper learning - a challenge during live virtual sessions - but also underscores how Negative Space equips learners with the flexibility to balance their diverse responsibilities. This segues into another advantageous attribute of Negative Space, intrinsically linked to the

concepts of flexibility and choice. These were prominent concepts brought up by the participants in this study when discussing temporal freedom associated with the asynchronous nature of discussion-based online courses. Subee, a learner participant, affirms this, underlining how Negative Space substantially enhances her learning experience:

> I'm one of these people that need time to reflect on things. I really do. I need to mull it over and over in my head, over one or two days, and then I can start talking about it. That's why asynchronistic learning *really* was good for me.

In addition to linking the chronemics category of eNVC with enhanced learning through Negative Space, Subee's quote underscores the inclusive nature of online learning. This is because it acknowledges the need for some learners to have additional time to process information or course material. In this context, Negative Space emerges as a critical mechanism for learners, who might otherwise struggle to achieve deeper levels of understanding, to identify knowledge gaps and intensify their learning over time.

Guided by an artography lens, I reflected on the connections among deeper learning, time, and Negative Space while intuitively weaving threads. This contemplative process revealed insights into how they mirror organic growth, which I see as the fruit borne of time. To capture this in the tapestry, I wove negative spaces to symbolize liminal spaces along with temporal withdrawal from course discussions and the significance of quiet reflection in fostering growth in relation to the evolving spiral of deeper learning (see Figure 37). While this growth is associated with the theme of Layered Growth, it is also relevant to the Negative Space theme, as it occurs in the emotional and cognitive dimensions of engagement. The subtlety and near-invisibility of this growth underscore the crucial role of time spent away from

active course participation "to think, rethink, redo, view, learn, check, interact, answer

questions, do the resources, learn some more, and then resubmit," as Kacia notes.

Figure 37

Time and Space Away - Quiet Reflection Fostering Growth

While Negative Space can have multiple positive implications, such as temporal

freedom for reflection and the cultivation of deeper learning, instructors and students need to

be aware of the potential drawbacks of prolonged and unproductive time away from course

interactions in the online course discussions. In the next section, I examine these drawbacks in

more detail.

Negative Implications. As emphasized by the study participants, Negative Space, when

viewed in a *negative* sense, can take on various forms, including the Uncomfortable Silence

discussed in Chapter 7. This silence arises from a lack of response or delayed feedback and has

a significant impact on students' learning experiences, hindering their ability to engage in

deeper learning.

In the online learning environment, Negative Space, specifically in the form of the eNVC category of Lack of Communication, has the potential to foster feelings of disconnection and disengagement among students. The intensity of these emotions can vary depending on individual motivations and specific circumstances. While both students and instructors can contribute to this type of Negative Space, the study participants emphasized the critical role of instructors in demonstrating leadership and responsiveness to students' needs. By actively monitoring and participating in discussion forums without oversteering them, instructors can model positive interactions and inspire students to engage in meaningful ways. On the other hand, a lack of instructor engagement and leadership in navigating the realm of Negative Space can lead students to feel skeptical about the course and question its value, as shared by Caitlyn, an instructor participant in the study.

Another manifestation of the negative aspect of Negative Space occurs when students choose or encounter circumstances that lead them to take extended breaks from online course interactions. These prolonged instances of Negative Space can disrupt the rhythm of learning, causing students to fall out of sync with the pace of course material and discussions. Consequently, feelings of isolation, disconnection, and disengagement may emerge. Extended periods of inactivity or silence, including a lack of participation in course discussions, can create unease and impede the cultivation of a sense of community and belonging among students.

By actively addressing and mitigating the negative implications of Negative Space, instructors and students can foster a more inclusive and engaging online learning environment that promotes deeper learning through meaningful interactions. This entails being attentive to meanings that emerge in the absence of words, akin to the art concept of Negative Space, to

evaluate the productivity of the Negative Space within online course discussions. In my dissertation tapestry, I visually capture this concept through negative weaving surrounding the eye (depicted in Figure 38). The eye symbolizes an unwavering focus on the human element that lies beneath the observable dimensions of engagement in online course discussions. Through this visual representation, I emphasize the importance of instructors and peers responding to each other's expectations and needs by approaching interactions with genuine, empathy, and care, recognizing the person behind the words posted in discussion forums. By intentionally integrating an awareness of Negative Space and aligning it with the eSET category of eNVC, participants in online discussion-based courses can harness its positive potential while mitigating any negative impact. One way to accomplish this is by fostering an environment that embraces failures and iterations as integral components of the learning process. This element of deeper learning aligns with the theme of Reflexive Apprenticeship, further explored in the following section.

Figure 38.

Negative Space Weaving - Focus on the Human Element

Reflexive Apprenticeship

The genesis of the Reflexive Apprenticeship theme lies in an amalgamation of reflections that sparked when I was broadening my understanding of deeper learning. During this period, my evenings were filled with weaving my dissertation tapestry, while my days were dedicated to my professional responsibilities, which involved providing on-the-job training for employees. This blend of experiences influenced the development of this theme, aiming to capture the key concepts shared by participants regarding modeling, mirroring, and the acquisition of skills through observing the actions of more experienced individuals in online course discussions. This recurring thread is evident in the narratives shared by the learner participants in this study (see Chapter 5). For instance, Casti expresses admiration for his empathetic instructor in his first online course, expressing a desire to emulate her teaching approach: "I want to emulate. I want to become that kind of teacher who can make a change." Jasmine echoes a similar sentiment, noting that her instructor's willingness to share personal experiences in one of her online courses resulted in sense of comfort for her to do the same: "It made me comfortable to share personal things about myself because of his willingness to do that. Because he modeled it, I was willing to do it, and I felt more comfortable to do so."

Yet, Reflexive Apprenticeship extends beyond mere learner observation and replication. It encompasses the ongoing reflective and reflexive thinking that instructors engage in while evaluating their own practices. The narratives of the instructor participants in this study serve as a fitting illustration of this aspect. For instance, Caitlyn extensively discusses her iterative process of experimenting with different approaches and technologies with her online students, assessing their responses, and extracting insights to refine her instructional practice - which also speaks to the creative virtue of deeper learning. Caitlyn's narratives align with

261

Cunliffe's (2016) discussion of critical reflexivity, which emphasizes critical self-exploration through questioning to improve praxis.

In addition to critical reflexivity, the theme of Reflexive Apprenticeship intertwines principles of both traditional and cognitive apprenticeship. Traditional Apprenticeship, as discussed by Lave and Wenger (1991), concerns learning manual skills through participation within a community of practice. Cognitive apprenticeship, on the other hand, applies apprenticeship principles to complex cognitive skills by making thinking processes explicit, guiding the learner to internalize the tacit strategies used by experts (Collins et al., 1988; Collins & Kapur, 2014). Recent studies support the effectiveness of the cognitive apprenticeship model, focusing on the role of the more experienced individual in modeling expert thinking or behaviors, whereas the apprentice role is to actively engage in the learning process, taking responsibility for their own learning (Eltayar et al., 2020; Klucevsek, 2016; Minshew et al., 2022). This includes observing and learning from experienced individuals, practicing skills, receiving feedback, and reflecting on their own learning progress. From these elements, the theme of Reflexive Apprenticeship emerges, encompassing concepts such as observing, imitating, and practicing skills, along with ongoing explorations of the self and self in relation to others with a focus on developing praxis. This self-referential loop of observing, reflecting, and practicing within a socio-cultural context is fundamental to Reflexive Apprenticeship. In Table 3, I synthesize the key elements of the three types of apprenticeship discussed in this section, highlighting the shift from learning through observation and participation to explicit thinking processes and critical reflexivity in the journey of deeper learning.

Table 3

Synthesis of Traditional, Cognitive, and Reflexive Apprenticeship

	Traditional Apprenticeship	**Cognitive Apprenticeship**	**Reflexive Apprenticeship**
Focus	Manual or craft-based skills	Cognitive and academic skills	Any skill, with emphasis on self-reflection and critical thinking
Learning Method	Direct participation, learning from a master within a community of practice	Modeling, coaching, scaffolding, articulation, reflection, exploration	Observing, practicing, and reflecting on one's learning process and role in the broader sociocultural context
Context	Real-world, practical	Both academic and real-world settings	Any learning context, with attention to broader sociocultural influences
Goal	Develop proficiency in a specific trade or craft	Develop cognitive skills and meta-cognitive awareness	Develop proficiency in a skill and cultivate critical self-awareness
Role of Apprentice	Learns by observing and gradually participating in the practice	Learns by observing, practicing under guidance, articulating their thought processes, reflecting, and exploring	Learns by observing, practicing, critically reflecting on their learning process, and evaluating their role in the broader context

Layered Growth

The theme of Layered Growth embodies the gradual development of skills and

knowledge through active (observable and unobservable) engagement in online course

discussions. Its essence can be paralleled to the growth pattern of shellfish, whose spiraling

shells serve as a visual metaphor for layered growth. This metaphor resonates with my understanding of the spiral-like nature of deeper learning, as discussed in Chapter 3 and depicted in specific sections of my dissertation tapestry.

Tapestry Spiraling Shell. Though initially daunting, the weaving process gradually became a symbol of my ongoing journey towards understanding the topic of my study through Layered Growth. As months passed, I began to realize how weaving provided me with a firsthand, tactile experience of my accumulating learning, particularly as each layer woven into my tapestry left a tangible trace of the insights I was gaining through story-hearing and story-weaving. Just as each thread held a role in the tapestry's overall structure and design, every nugget of insight contributed to the intricate fabric of my learning experience.

Figure 39

Deeper Learning Spiral and Layered Growth

To visually interpret this transformative process of Layered Growth, I included the shape of a shellfish's spiraling shell in my dissertation tapestry. This visual symbol serves to demonstrate the layered growth that parallels the spiraling nature of deeper learning. This

pattern also mirrors the progression of learning in discussion-based online courses, where learners cyclically dialogue and revisit topics, enriching their understanding and broadening their knowledge horizons over time (Figure 39). This embodiment of Layered Growth constitutes an integral part of my dissertation tapestry, reflecting the dynamic, iterative, and ever-growing process of deeper learning.

Separate and Interconnected. In addition to the notions discussed in the previous paragraphs, Layered Growth, as portrayed in the tapestry, mirrors the harmonious integration of various knowledge domains, contributing to the learner's holistic development. Similarly, the interwoven tapestry threads, though separate and discontinuous, blend together seamlessly to form a cohesive design, symbolizing the interconnectedness of different areas of growth. This integration fosters the comprehensive aspect of deeper learning and promotes the overall enrichment of the individual in any educational setting, including online discussion forums.

To visually capture this concept, I refer to the image of spiral weaving (Figure 39), where I employed various techniques, including the meet and separate method discussed in Chapter 5, to intricately interconnect an assortment of vibrant weft yarns. This artistic process serves as a potent metaphor, symbolizing the interconnected nature of knowledge and the dynamic exchange of ideas that underpin the journey towards deeper learning.

Just as the interwoven weft yarn unites various strands to form a complete tapestry, interactions in discussion-based online courses also interconnect. These interactions, combining both verbal and nonverbal facets of communication, can serve to expand the learning of both learners and instructors beyond the boundaries of the course material. The participants in this study echo these ideas, which I further elaborate on in the next section.

Gradual over Time. As mentioned in the previous paragraph, the study participants underscore how growth in one domain enhances understanding in others, contributing to their continuous academic, personal, and professional development. For example, Casti, a learner participant, encapsulates this notion as he reflects on his learning from his first two online courses:

It was a good experience for me because it made me think of different ways for online instruction... Those courses gave me a better understanding of what online learning is... So that, in some ways, is probably the biggest takeaway for me.

In similar fashion, Jasmine, another learner participant, emphasizes the progressive nature of deeper learning, which is embodied in this theme of Layered Growth. For instance, reflecting on her transformative journey through her online studies, Jasmine remarks:

When I think about my journey at the beginning where I was so cautious, so tepid, and so mindful of what I'm going to say...And then you go through the courses, and you gain more knowledge, you gain more experience, you gain more confidence.

This process of gradual growth over time is further underlined by Kacia, an instructor participant, who astutely remarks: "We can't learn everything in one day. So, I give you one paragraph; you give me another; Mary gives me another; Paul gives me another…And that's how we move on." Alongside focusing on the chronemic code in online course discussions, Kacia's words in this quote underscore the collaborative nature of learning, where knowledge is collectively constructed over time. This emphasizes the crucial role of active participation and dialogic learning in online courses, a point discussed under the theme of To and Fro Again earlier in this chapter.

The other themes of this study, namely Negative Space and Reflexive Apprenticeship, also intersect with Layered Growth. This is due to their emphasis on the significance of reflective thinking and learning from mistakes, which are essential components of the iterative growth process inherent to Layered Growth. Caitlyn, an instructor participant, exemplifies this intersection in her reflections about the lessons she has gathered throughout her career as an online instructor:

> I would say paying attention to details and being willing to make mistakes are the biggest ones. …I'm constantly surprised by little things that I hadn't even thought of … or things that I thought would go well that didn't; things that I didn't think that would go well and did. Then being willing to adjust and try new things. And honestly, I think I'm fortunate because, as a teacher and as a person that's not a chore for me, it's a joy.

In this quote, Caitlyn underscores the importance of embracing mistakes as learning opportunities. She finds joy and fulfillment in the process of Layered Growth, both as an educator and an individual. Her journey of self-improvement, underpinned by an open and joyful mindset, is instrumental in fostering a positive learning environment. It encourages not only a sense of enthusiasm and curiosity but also the resilience to embrace various outcomes, whether they reflect success or learning opportunities.

Caitlyn's insights resonate with the themes discussed in Chapter 6, specifically within the sections of Educated Risk and Mastery, Identity, and Creativity. This continual striving for growth and self-improvement is intricately connected with accepting risks and learning from mistakes, key aspects of deeper learning. As articulated by Costa & Kallick (2015), "Deeper learners learn from all their experiences, not only from their successes. They view failures as learning opportunities and apply prior knowledge beyond the context in which it was initially

learned" (p.72). This concept not only underscores the importance of mastery in deeper

learning but also highlights the role of creativity, fostered through the application of new

approaches, and identity, shaped by self-exploration.

Part 2: Recommendations

Drawing from the inter-storied responses of participants, as well as my own experiences

and reflexivity, a set of recommendations emerged regarding the effective use of eNVC to

promote deeper learning in discussion-based online courses. These recommendations aim to

address the second main research question below:

2. From the inter-storied responses of the instructors and learners, what

recommendations emerge for the use of eNVC and how they may lead to deeper learning?

I present these recommendations arranged into four levels:

1. The Institutional and Program Level, targeting educational leaders, policy makers,

    and department heads;

2. The Course Design Level, concerning both instructors and instructional designers

    responsible for course creation and development;

3. The Instruction and Facilitation Level, focusing on the role of course instructors and

    facilitators in setting the tone, expectations, and managing arising issues; and

4. The Learner Level, pertaining to the students enrolled in the online course.

Detailed descriptions for each level follow.

Institutional and Program Level

The idea for this set of recommendations, targeted at the institutional or program level,

is inspired by my discussions with Caitlyn, an instructor participant with a unique perspective

stemming from her involvement in policy-making. In her narratives, Caitlyn underscores the importance of establishing a unified approach to online education at the program level, stating:

> Based on my experience, this comes to what's happening at the program level. For the most part, I think faculty, whether adjunct or permanent, are rarely operating from the same sort of philosophies and understandings with online education. If you want to do a good job with students, and ... if you don't have faculty on the same page setting those norms and modeling those expectations and good skills online, you've got *zero assurance* that students are going to be developing that over time. And that's problematic because there's only so much you can do in class.

Caitlyn's quote emphasizes a challenge that is not exclusive to online courses in the field of education. However, within the context of this study, this challenge holds particular significance due to the substantial rise in online courses during and after the COVID-19 pandemic. I wish to highlight Caitlyn's final sentence in the aforementioned quote, which emphasizes the role of time, repetition, and consistency in online programs. These elements are closely linked to aspects of eNVC discussed in the Themes section of this chapter, although not specifically in relation to online programs or across the entire educational institution. Nevertheless, it is necessary to explore how these components and others extend beyond individual online courses and apply them to the broader educational environment. This exploration is based on the valuable insights provided by the participants.

According to the study participants, instructors like Caitlyn, Kacia, and Patricia are naturally attuned to the nonverbal aspects of online communication. Therefore, they adopt strategies, including using eNVC, to ensure their students derive the most from their courses. However, unless their practices are consistent across the institution or program in which they

teach, there is "zero assurance", as noted by Caitlyn, that students will be able to achieve the depth of learning that discussion-based online courses can offer. Therefore, the recommendations that follow aim to address this challenge under five categories:

- Faculty Development and Consistency

- Creativity and Reflexivity through eNVC

- Community Building and Support

- Course Design and Evaluation

- Policy Development

In the following paragraphs, I present details for each of the aforementioned categories.

Faculty Development and Consistency

Faculty Consistency. Ensure that faculty members, whether adjunct or permanent, operate from a shared understanding regarding online education, particularly in relation to the chronemics and eSET categories of eNVC. This involves formulating clear expectations about the quality and timeliness of faculty interactions within online course discussions, the nature and frequency of feedback provided to students, and the tone of communication in the course discussion forums. This will help faculty align their teaching approaches with the vision of the institution and the guidelines of the programs they are part of. This alignment can be further strengthened through meetings and workshops organized to foster collaboration and the sharing of good practices among faculty members. This consistency can significantly enhance the learners' experiences, due to the uniform instructional approach and set of expectations across different courses in their online program.

Professional Development. As much as possible, prioritize professional development programs that increase understanding of eNVC in discussion-based online courses. These

programs can emphasize how eNVC influence students' perceptions of learning experiences and highlight the importance of timely and balanced faculty engagement in online course discussions. By organizing training sessions, seminars, or workshops centered on effective strategies for the use of eNVC, institutions can foster an inclusive and inviting online environment conducive to learning.

Common Practices. Endeavor to establish common practices around verbal and nonverbal communication in online course discussion forums, with a particular focus on fostering dialogue and ongoing interactions. To achieve this, institutions can formulate consistent guidelines that enable instructors to recognize students' strengths and areas for development and provide faculty with rubrics for evaluating student participation. This repository could be established as an Open Educational Resource (OER), with materials licensed under Creative Commons.

Creativity and Reflexivity through eNVC

Cultivating Creativity. Encourage faculty to utilize innovative technological tools creatively to explain course material beyond excessive reliance on web conferencing platforms – which became prevalent during and after COVID-19. In this context, faculty could utilize AI-based applications, leveraging them to meet specific course objectives and desired learning outcomes. The implementation of such strategies can enhance interaction and engagement in discussion forums and promote deeper learning through the 2D visuals category of eNVC.

Subee, a student participant, illustrates this point as she recalls an online course where the instructor encouraged the use of technology to foster engagement. In that course, the instructor and some students used comic strips to introduce themselves instead of text-based bios at the beginning of the course. In the subsequent weeks, students continued to explore and

utilize various technologies, which was both fun and educational. This example highlights the

potential of such tools to invigorate discussion-based online learning environments.

To optimize these approaches, institutions should curate a list of recommended online

platforms and, if required, negotiate discounted subscriptions. Access to such tools assists

faculty in creating visual aids such as illustrations, diagrams, and infographics to effectively

communicate complex ideas. In addition to access, institutions may consider providing faculty

with relevant training and technical support, to ensure the smooth adoption of these innovative

teaching strategies.

Encouraging Reflective and Reflexive Thinking. A crucial aspect of promoting

reflective and reflexive thinking lies in the skillful use of eNVC, particularly chronemics, as

discussed in Chapter 7. That is why institutions and programs need to ensure that their faculty

members and course designers are equipped with guidelines for sequencing course material and

activities in ways that promote reflective and reflexive thinking. The adoption of these

strategies can foster an inclusive learning environment that caters to diverse learning

preferences and paces.

Community Building and Support

Creating a Supportive Community. Establish mentorship programs or communities

where novice online educators are paired with more experienced ones to share experiences and

good practices, particularly regarding engagement and interaction in discussion-based online

courses. This could be cultivated through regular meetings, workshops, or online forums that

encourage collaboration and mutual support among faculty members. This approach not only

facilitates the transition for new educators into the online environment but also promotes a

continuous learning culture within the educational institution.

*Providing Resources***.** Equip faculty members with a comprehensive set of tools and resources aimed at enhancing their online teaching and facilitation skills, particularly in the context of eNVC within asynchronous discussions. This might include suggestions for icebreakers, games, activities, and proven practices for promoting student interaction and engagement in asynchronous discussions.

An online repository can serve as a valuable resource, allowing faculty members to easily search for and access materials while also sharing their own successful strategies with their peers. Inspired by Kacia's and Caitlyn's good practices of sharing discussion prompts with their students, I suggest that such repositories feature a collection of resources, such as: prompts, structures, or sentence starters that faculty can share with their students to use in online discussions. This will help students move beyond generic responses and foster more engaging interactions.

Course Design and Evaluation

*Course Sequencing and Organization***.** Consider the sequence and design of courses, striving for consistency in organization and expectations around asynchronous discussions. Regular reviews and refinements of the program structure can ensure that each course contributes effectively to the learning objectives, but also builds logically on the previous one to foster deeper learning through continuity.

Regular Feedback Mechanisms. Establish regular feedback mechanisms that focus on assessing the quality and effectiveness of eNVC in discussion-based online courses. These mechanisms can take various forms, such as user experience surveys that evaluate leaners' interpretations and reactions to eNVC embedded within the online course design and sequencing of material, or focus groups where both leaners and instructors share insights on the

effectiveness of eNVC from their vantage points. Such mechanisms provide opportunities for users in any capacity to express their thoughts on how eNVC have contributed to their overall online learning experiences.

Student Partnership in Program Design. Actively involve students as partners in the design and development of online programs. This involvement can include discussions and collaborative decision-making processes to determine effective strategies and practices on the use of eNVC in the course discussions. Such involvement contributes to creating an inclusive and student-centered learning environment that fosters meaningful interactions, engagement, and deeper learning among students.

Policy Development

Policy for Consistent Online Education Practices. Institutions might establish a policy that ensures consistent online education practices across all programs. This policy could include the use of eNVC, expectations for faculty and student engagement in online discussion forums, and the integration of diverse communication methods, with examples for each provided in model courses. Clear guidelines and standards of this kind can promote a more cohesive and effective online learning experience, with a particular emphasis on fostering interactions and engagement through eNVC.

Policy for Professional Development. It is recommended that institutions put in place a policy that promotes regular professional development for faculty members. This policy could emphasize the importance of ongoing training in effective online teaching practices, including strategies to enhance eNVC in asynchronous discussions. Faculty should have opportunities to expand their knowledge, acquire new skills, and stay abreast of emerging trends and research in online education. By prioritizing professional development, institutions can support faculty

in gaining awareness about eNVC and how they can be used to facilitate deeper learning in asynchronous discussions.

Policy for Student Feedback Utilization. It is recommended for institutions to establish a policy that outlines how student feedback is collected, analyzed, and utilized to improve discussion-based online courses and programs. This policy could emphasize the value of student voices and their contribution to the continuous improvement of the online learning environment. By actively incorporating student feedback, institutions can identify areas for enhancement and address concerns as soon as they arise.

Course Design / Creation Level

Course creators and instructional designers play a crucial role in facilitating deeper learning through the effective integration of eNVC in discussion-based online courses. By thoughtfully incorporating eNVC into course design, course creators and designers have the power to create a dynamic and engaging learning environment. To achieve this, they need to pay careful attention to various aspects of eNVC, including the strategic use of chronemics to sequence course material and the utilization of 2D visuals to enhance course navigation and ensure a seamless learning experience for students.

Based on the recommendations that emerged from this study, I have organized the recommendations for course creators and instructional designers responsible for developing discussion-based online courses into four key categories, listed here and discussed in detail below:

- Bridging eNVC Understanding and Practice
- Creating an Inclusive and Comfortable Learning Environment
- Designing for Engagement and Interaction

- Fostering Collaborative Course Design

Bridging eNVC Understanding and Practice

Grasping eNVC. Acquire an understanding of eNVC and its potential to enhance deeper learning, and seek opportunities to incorporate these elements into course design, working in collaboration with subject matter experts and/or instructors. This process will assist in rethinking education based on the communication medium used to facilitate the learning experience, all in line with the guidelines of their respective educational institutions.

Course Layout and Design. Careful attention should be given to visual aspects such as labeling, sequencing, layouts, and images. These are critical to enhancing the visual appeal of the online course, making it more engaging and easier to navigate. These design components speak to the 2D visuals category of eNVC.

eNVC Tools. Provide a range of eNVC tools within the learning platform, such as a library of images, digital drawing tools, and annotation features. These tools encourage students to use eNVC in discussions and assignments, enhancing their ability to convey messages beyond mere words.

Guidelines and Tutorials. Deliver clear guidelines and tutorials on how to use specific tools through the learning management system to encourage the use of eNVC in online discussions. These resources need to be easily accessible within the course materials.

Creating an Inclusive and Comfortable Learning Environment

Course Orientation. Set clear expectations for students at the outset of the course, detailing where to find essential elements, reminders of upcoming activities, and due dates for assignments. This information could be integrated into the course orientation, and included in the course online calendar. This will foster a comfortable learning environment from the

beginning, allowing students to plan their time accordingly.

Design for Diversity. Recognize the diversity of digital learning tools and the varied backgrounds of online course participants. Consequently, design the course to cater to different learning preferences and accommodate both written and nonverbal aspects of communication in discussion forums.

Accessibility. All elements of the course design need to be accessible to students with varying abilities. Activate course features that facilitate accessibility, giving students more options and authority over their learning environment. For example, enable the arrangement of discussion forums by topic or date, the ability to search for specific terms within the discussions, and the capacity to personalize certain features of the online course.

Student Autonomy. Empower students by granting them some degree of control over their learning journey. This sense of autonomy can stimulate intrinsic motivation, encourage responsibility, and promote a deeper understanding of the subject matter. In the context of eNVC, student autonomy can be enhanced through a variety of ways. Below are two examples;

- **Choice**: Provide students with options in their activities and assignments. For instance, they could be given a list of topics to choose from for a project, or different formats (essay, presentation, flyer, etc.) to present their work. This not only caters to their individual interests and strengths but also encourages them to use eNVC in ways they are most comfortable with, fostering creativity.

- **Flexibility in Participation**: Flexibility in participation can mean allowing students to choose which discussions they want to contribute to. This flexibility can also extend to the modes of communication they use in these discussions, such as text or images, enabling them to leverage eNVC to its full potential.

Designing for Engagement and Interaction

Leverage Interactions. Create activities that encourage students to utilize eNVC in their interactions. For example, peer review tasks could be designed to not just focus on the content of a submission but also the effectiveness of eNVC in conveying ideas. These tasks could also be structured to allow students to provide feedback using a variety of modes, such as text comments, annotated diagrams, or mind maps.

Promote Rich Discussions. Craft discussion prompts that stimulate the use of eNVC. Instead of simply asking students to respond to a prompt with text, encourage them to express their ideas using other forms of eNVC, such as images, diagrams, or even emojis. One example of this type of activity comes from a student participant, Jasmine, who suggests an engaging exercise where students present themselves through an emoji or a picture of an animal that best represents them. Jasmine explains:

> Put an image of an animal and then have us guess why you've picked that animal, so we can learn more about you. For example, I will be a tiger because I like to be isolated at times, but then I'll come together with the people I care about. I like to roam different places by myself, I mark my territory by writing T on the tree.

According to Jasmine, such use of eNVC in the discussion forums allows for a fun and unique way of connecting with others in the online classroom. Another idea is to include activities that require regular, meaningful interactions among students and between students and instructors, such as debates. In these situations, eNVC can play a crucial role in facilitating understanding and collaboration, enabling participants to better convey their ideas and perspectives.

Use of Interactive Tools. Capitalize on the features of the LMS or other digital tools to promote interaction and the use of eNVC. For instance, you could use polls not just for getting a quick check on understanding, but also for sparking discussion around why students voted a certain way, inviting them to share their thoughts using a mix of text and visual aids. Shared documents for collaborative work can be designed to encourage students to use eNVC to annotate, highlight, and visually represent their ideas, fostering a more interactive and engaging learning environment.

Fostering Collaborative Course Design

Instructor Collaboration. Foster a collaborative relationship with instructors and content experts during the course creation process. Instructors usually possess firsthand experience and insights into student behaviors and preferences in relation to the use of eNVC, which can be invaluable for effective course design.

Student Involvement. Incorporate student feedback into the course design process. Students can provide unique insights into what works and what does not in terms of promoting deeper learning through eNVC.

Regular Review and Adjustment. Regularly monitor the course and make adjustments based on the instructor's suggestions as well as the students' needs and feedback. This could include adjusting the pace of the course, the depth of discussion topics, or the balance between negative space and active interaction.

Instruction and Facilitation Level

The following is a list of recommendations for instructors and facilitators of discussion-based online courses, arranged by eNVC categories. These recommendations aim to promote interaction and engagement in course discussion forums. By embracing a new mindset,

preparing thoroughly, recognizing students' needs, and adopting an effective communication approach, instructors can create a supportive and engaging learning environment that fosters meaningful interactions.

Chronemics.

Awareness and Understanding of Chronemics.

- *Understand the Role of Chronemics:* Recognize how the timing, sequencing, and pacing of interactions can impact the learning process and the sense of community within the course.

- *Guide Students in Chronemics:* Help students develop an understanding of the importance of chronemics in online discussions. Explain how timely responses, pacing of posts, and appropriate use of time contribute to meaningful discussions and foster deeper learning.

Time Management and Scheduling.

- *Set Clear Expectations:* Establish clear expectations about response times and deadlines. This clarity reduces anxiety and confusion, allowing students to focus their mental energy on deeper learning. This includes sending reminders or newsletters about upcoming tasks, as well as providing information on your response times and when students should participate in discussions or complete assignments.

- *Be Mindful of Your Online Presence:* Consider your online presence and its influence on students. If you are constantly available or responding to posts very quickly at all hours, students may feel pressured to do the same. Model healthy and effective time management practices to encourage students to schedule their

participation in the course discussions, allowing for productive negative space that promotes reflection and preparation.

Discussion Facilitation and Pacing.

- *Facilitate Asynchronous Discussion with Chronemics in Mind:* Ensure the course discussions are well-paced to prevent cognitive overload. This allows students to spend more time engaging with the material and each other, promoting deeper learning. Along with the asynchronous discussions, consider the pacing and timing of assignments and other course activities, to establish a rhythm that does not overload students.

- *Strike a Balance Between Interaction and Observation:* Be mindful of your own and the students' level of interactions. Strive for a balance that suits the students' needs and the learning objectives. Avoid dominating discussions through frequent and lengthy postings, as this discourages student contributions and prevents the natural evolution of the discussion.

- *Provide Timely Feedback:* Maintain a steady pace of active engagement, and provide feedback needed for improvement promptly. This helps students learn from their mistakes and successes and shows your engagement and commitment to their learning.

Flexibility and Adaptability.

- *Be Flexible with Deadlines:* Understand that online learning can come with unique challenges and disruptions. Be willing to offer flexibility with deadlines when appropriate. This flexibility can reduce stress and enable students to engage deeply with the material rather than rushing to meet a deadline.

- *Consider Students' Chronemics:* Pay attention to the chronemic signals your students are sending. If they consistently post at certain times or if there are lulls in the discussion, be mindful of their posting rhythms, and offer assistance when needed. This fosters an environment that respects their unique situations and promotes deeper engagement.

eSET.

The evolving eSET sub-category within eNVC has received notable focus in participants' narratives and recommendations for instructors. Concerning the style component, it is essential to model the language structure you expect from your students. Kacia provides a compelling example, explaining how her students emulate her nuanced writing style. They use phrases like "I share your sentiments in passage A of text B," rather than settling for simple expressions like "I agree" or "I don't agree," which she explicitly discourages. She also suggests alternative phrases such as "I share your sentiments here; however, I disagree with you in..." or "Allow me to post this suggestion for this."

In addition to modeling stylistic elements, encourage deeper engagement by offering sentence starters and thought-provoking prompts, an approach that Caitlyn successfully employs. Regarding the effort required, it is important to understand that online education is more than just transferring traditional content to a digital platform – a point that Kacia strongly emphasizes. Be meticulous in preparing for your classes, especially in understanding your students and building rapport, a concept reinforced by Casti.

When responding to students, focus on creating thematic connections rather than individual replies. Instead of answering every post, aim to link various discussion threads and

supplement them with summary comments or probing questions, a strategy Caitlyn adopts to encourage deeper learning through interaction. As for tone, Patricia stresses the importance of maintaining a respectful and constructive environment. Be mindful of your choice of words, their arrangement, and how the tone they convey can influence the learning experience. Patricia underscores this by pointing out that feedback involves not just what you say, but also how you say it.

2D Visuals

To enhance online engagement, encourage students to add profile pictures, boosting a sense of connection. As Casti notes, "some actually post their photos. I would say that definitely helped a lot." Promote personal sharing of images related to course topics, fostering community. Caitlyn suggests prompts such as, "Like your favorite shoes and why?" Humanize feedback using emojis to soften criticisms; Caitlyn mentions a simple smiley can say, "Hey, it's okay." Encourage students to visualize concepts to diversify expression. Prioritize effective post formatting, using colors to clarify ideas. Kacia does this by saying, "I use orange for the first round of corrections, then blue, then green... the students know it was done in stages."

For managing absence or pauses in discussions, maintain a consistent presence as an instructor to prevent disengagement. Monitor and address long pauses or signs of struggle. Communicate your availability to manage expectations. Keep discussions lively with regular updates and by incorporating external resources. Recognize the value of Negative Space; not all silences indicate disengagement and can serve as reflective pauses. Encourage thoughtful pauses for deep reflection and reach out to inactive students to keep the environment supportive and engaging.

Learner Level

Chronemics

Online learning necessitates a significant degree of self-discipline, especially in regard to managing time. Participants in this study stress the importance of time management in ensuring successful engagement and deeper learning in online discussions.

- *Plan Ahead*: Construct a well-structured schedule to assist in managing online activities efficiently, including when to post and when to take time for quiet engagement in the course material.

- *Post Strategically*: Aim to coordinate the timing of your postings with that of your peers (after taking the necessary time to complete readings and reflect on them), rather than posting too early or too late during the discussion period. This habit enhances the chances of receiving timely responses and fostering ongoing dialogue.

- *Maintain Timely Engagement*: Regularly post and respond within the discussion forum. This practice not only stimulates deeper learning but also allows other learners to provide you with valuable feedback.

Style, Effort, and Tone Matter

Effective communication in online discussion forums is about more than just typing out responses. It requires a conscious effort to be concise, active, and open to seeking clarifications.

- *Be Concise:* As Subee explains, conciseness in online postings indicates a higher level of understanding. It makes points clearer and encourages meaningful engagement.

- *Engage Actively:* Jasmine advises learners to be self-directed and active participants in their learning journey in discussion-based online courses. This involves engaging

in critical thinking, truly immersing oneself in the material, and making substantial contributions to discussions. Also actively seek clarifications for what seems unclear, instead of making assumptions, as Caitlyn suggests.

- *Inject Personality and Creativity:* Maintaining engagement in online course discussions often necessitates a touch of creativity and a good dose of personality, as Jasmine suggests. This could involve sharing a joke, a riddle, or posting a link to an interesting external resource. It can also be as simple as posing a thought-provoking question.

Enhancing Understanding with 2D Visuals

Visuals play a significant role in enhancing understanding and engagement in online discussions. They can clarify points, illustrate concepts, or simply add visual interest to posts.

- *Use 2D Visuals Creatively:* Diagrams, infographics, or other visual elements can help to illustrate complex ideas or reinforce key points. They can also make your posts more engaging and memorable.

- *Consider Post Layout:* Be cognizant of the effect the appearance of a post has, format and add special features to convey certain thoughts and enhance readability. Avoid unnecessary visual cues that distract readers from your post's main points.

Navigating Silence and Non-Response: Learning to Cope and Engage

In online discussions, acknowledgement and responsiveness are key to fostering a supportive and engaging experience. As Jasmine notes, receiving no response can feel disheartening, and the lack of response or silence can often lead to feelings of alienation and disengagement. However, it is crucial to understand how to navigate these situations and continue to contribute meaningfully.

- *Silence as an Opportunity for Growth:* Understand that a lack of response does not necessarily reflect the value of your contributions. It could be due to many reasons, including timing, content saturation, or simply a mismatch between your peers' online schedules and yours.

- *Seek Feedback*: If you are consistently not receiving responses, consider asking your peers or instructor for feedback on how you can better engage in discussions.

- *Be Mindful of Peers' Contributions*: Acknowledge others' posts, even with a simple "Great point!" This encourages active participation and fosters a more supportive learning environment.

Discussion

The four intertwined themes and recommendations emerging from this study underscore aspects of eNVC that impact deeper learning through interaction and engagement in asynchronous online course discussions. As highlighted in the To and Fro Again theme, Paused Continuity supports a continuous, yet punctuated exchange of ideas, experiences, and perspectives foundational for learning that goes beyond mere knowledge acquisition. The opportunity to reflect before responding, which the participants of this study value, aligns with the temporal freedom and flexibility provided by the chronemic attributes of asynchronous course discussions.

While human interactions are highly valued in educational settings, including online (Jo et al., 2017; Williams & Humphrey, 2019), pauses for reflection and cognitive engagement are essential for deeper learning. Notions that the participants in this study articulate regarding the brain needing space and time to process, have historical precedents in literature. For instance, Martin and Bolliger (2018) quote a student participant saying that they find little value in

synchronous meetings for online learning because they prefer "to mull over deeper ideas and concepts before responding" (p. 214). Associating deeper understanding and reflection with temporal freedom has long been recognized as an advantage of asynchronicity in online learning (Brookfield & Preskill, 2012; Garrison et al., 2000; Hiltz & Goldman, 2005; Varkey et al., 2022). This freedom grants learners a break from the temporal linearity and, occasionally, the urgency inherent in synchronous interactions, whether they occur face-to-face or online.

Early in the evolution of online education, this temporal quality of the asynchronous course was recognized by T. Anderson (2008) as "the major motivation for enrollment in distance education," which he asserts to be "not physical access per se, but the temporal freedom that allows students to move through a course of studies at a time and pace of their choice" (p.52). While temporal flexibility has been a primary driver for enrollment in online courses before COVID-19, the pandemic-induced need for physical distancing shifted many towards synchronous online learning, primarily facilitated by advancements in video conferencing technology (Majewska & Zvobgo, 2023; Means et al., 2020). This synchronous online modality, while advantageous, can also introduce challenges related to real-time and physical space constraints for both learners and educators, leading to distractions in their focus and educational environments (Donham et al., 2022; Norton, 2019). Such challenges can be alleviated by the temporal flexibility embedded in the asynchronicity of discussion-based courses. Because discussion threads can be thematically organized, they also offer individuals chances to move across time, "dipping in and out of topics" (Bender, 2012, p. 35), without waiting for their speaking turn. In addition, this method allows many individuals to express their thoughts concurrently, away from interruptions. This chronemic feature related to the asynchronous nature of online course discussions makes virtual class time "much more elastic,

much more pulled, lengthened, stretched, and maybe even coiled in on itself" (Bender, 2012, p. 149).

In my dissertation, temporal flexibility and elasticity are embedded in the Time Away element of the Negative Space theme. Without strategically planned time away, learners risk viewing interactions in discussion forums as the least valuable part of the online course. This sentiment is evident in Martin and Bolliger (2018) when a student mentions, "Even when discussions are set up following best practices, they simply feel like busy work consuming time." (p. 214). The phrase "consuming time" relates to the effort aspect of eSET, as highlighted by some participants in my study. This notion is also discussed by Faulconer et al. (2022), who establish connections between the highest cognitive loads with reply post tasks, with contributing factors including mental effort. This underscores the value of pauses in the continuous asynchronous discussions, which interlaces with discussions about spacing and interleaving, also known as sequence learning (Varkey et al., 2022). However, it is crucial to strike a balance to avoid the potential awkwardness and Uncomfortable Silence of Negative Space resulting from a lack of response.

Sentiments expressed by the participants in my study about Uncomfortable Silence resonate with those shared by students in Forbes (2022). In that research, learners express frustration when their peers overlook their posts in online discussions. They liken such behaviors to impoliteness and rudeness in face-to-face interactions, emphasizing the expectation for peers to acknowledge and not repeat or ignore prior posts. Participants in Forbes' study, like those in my research, show awareness of the message value embedded in the absence of interaction in discussion forums, which they sometimes interpret as an expression of disagreement or avoidance of debate with those holding differing opinions. This

perception of being ignored or overlooked results in a feeling of not being heard, aligning with the Feeling Heard notion discussed in the To and Fro Again theme of my study. Related to this, the Dynamic Dialoguing aspect of the To and Fro Again theme relies on brevity of posts and questions that encourage back-and-forth exchanges.

The discomfort and feelings of being unheard caused by lack of response highlight the vital need for instructor involvement and strategic use of eNVC in asynchronous discussions. As findings from my study indicate, effective facilitation plays a key role through modeling desired behaviors like timely, individualized feedback; succinct, respectful posting tone modeling enthusiasm and curiosity; varied presentation formats; and questions that spark engagement. Skillful eNVC use transforms forums from isolated posts into dynamic dialogues fostering deeper learning.

Relatedly, the literature highlights several effective eNVC-related strategies for promoting meaningful engagement and learning in asynchronous discussions. A primary theme is the importance of structure, including clear expectations and discussion prompts tightly aligned to learning objectives (Ergulec, 2019; Martin & Bolliger, 2018). Providing explicit guidelines and examples reduces ambiguity about requirements while modeling high-quality contributions, facilitating greater participation and critical thinking. Thoughtful discussion design is also critical for sparking dynamic dialogue and eliciting students' unique perspectives, rather than repetitive or shallow responses. Using open-ended questions, having students generate queries, and linking prompts to real-world applications encourage deeper analysis and knowledge construction instead of just summary regurgitation (Fehrman & Watson, 2021).

Instructor involvement and facilitation choices greatly influence the efficacy of online

discussions as well (Larson et al., 2019). Timely feedback, regularly summarizing key points, and posing follow-up questions to spark deeper reflection demonstrate instructor presence while also allowing student voices to naturally emerge. This requires balancing active facilitation with adequate space for organic conversation (Fehrman & Watson, 2021). However, simply providing an array of web tools does not automatically guarantee meaningful engagement. Intentional pedagogical design while integrating structure, objectives, and facilitation strategies remains essential in online learning, no matter the technologies used.

Chapter 8 Summary

The title of this chapter, *Weft Bundling*, reflects the process of blending diverse experiences and insights to create a more vibrant and sturdy understanding of the role of eNVC in online courses. To do so, it delves into two main parts. The first part identifies themes relevant to eNVC that facilitate deeper learning and engagement in online course discussion forums. This exploration answers the first research question, drawing knowledge from both my experiences and those of the study participants. The themes identified are: To and Fro Again, Negative Space, Reflexive Apprenticeship, and Layered Growth.

The second part of the chapter proposes recommendations arising from the participants' comments and suggestions, and aiming to promote deeper learning through interaction and engagement in discussion-based online courses. This section responds to the second research question and offers valuable guidelines for enhancing the learning experience within synchronous discussions. These recommendations are categorized into four distinct levels: The Institutional and Program Level, the Course Design Level, the Instruction and Facilitation Level, and the Learner Level. Each level targets different stakeholders in the education sector, ranging from leaders and policymakers, through instructional designers and instructors, to the

students themselves. The chapter concludes with a synthesis of the study themes and

recommendations in relation to existing and relevant literature.

The following chapter brings the dissertation to a close with a summary of findings and

final reflections.

CHAPTER 9

SELVEDGE TO SELVEDGE

From selvedge to selvedge, threads interlace,
Paving a passage through the scholarly space.
From this academic endeavor, I take my leave,
A tapestry of learning, I continue to weave.

Not the end, but a threshold crossed,
In pursuit of insight, no effort is lost.
The journey persists, the loom still sings,
With every story, knowledge it brings.

Chapter 9: Selvedge to Selvedge

(Final Chapter)

As I draw my dissertation to a close, I introduce this final chapter, aptly entitled Selvedge to Selvedge. This title finds its roots in the intricate world of tapestry-making, a craft I immersed myself in during this research journey. In weaving, the term selvedge stems from "self-edge," referring to the carefully constructed border that completes a tapestry. This edge safeguards the structural integrity of the fabric. Thus, Selvedge to Selvedge serves as an apt metaphor for this concluding chapter, interweaving threads from across my study into a coherent tapestry.

Yet while three selvedges are in sight, one remains beyond the horizon. My inquiry flows on, symbolized by the (un)finished top of my finished tapestry. This open edge represents the ongoing nature of my research, which does not conclude with this doctoral program. The insights so far pave the path for continued discovery.

Therefore, Selvedge to Selvedge marks not a definitive end but a threshold – a passageway from this academic endeavor into future landscapes of learning. My exploration will carry on, delving deeper into eNVC and their role promoting deeper learning through interaction and engagement in discussion-based online courses.

Summary of Findings

This research journey emerged from a thread of curiosity about the resemblance between the interplay of verbal and nonverbal cues in the communication process and the intricate, intertwined strands in a tapestry (Burgoon et al., 2010). To seek a deeper understanding of this metaphor, I undertook weaving a tangible dissertation tapestry that represents the topic and findings of my study. The raw materials for this study consisted of the

initial stories and experiences of the research participants, coupled with my own. As the study unfolded, I meticulously wove these experiences and stories, thread by thread, utilizing artography as a reflexive methodology. This process encompassed data collection, analysis through story-hearing/story-weaving, and interpretation from both artistic and analytical perspectives. This exhaustive approach culminated in the findings and fresh insights that effectively address the research questions. These are succinctly summarized in the subsequent sections.

Before summarizing the research findings, I reiterate that this study aimed to address the scarcity of literature on the topic of nonverbal communication within discussion-based online courses. Furthermore, the study sought to explore the potential influence eNVC may have, specifically in terms of fostering deeper learning through interaction and engagement in asynchronous discussions. To achieve this, I formulated my research puzzle into two main research questions and two subquestions, as follows:

1. What aspects of eNVC contribute towards interaction and engagement that lead to deeper learning in the asynchronous, discussion-based online learning environment?

    1a. What aspects of eNVC do instructors perceive as promoting or hindering interaction and engagement in asynchronous online course discussions?

    1b. What aspects of eNVC do learners perceive as promoting or hindering interaction and engagement in asynchronous online course discussions?

2. From the inter-storied responses of the instructors and learners, what recommendations emerge for the use of eNVC and how they may lead to deeper learning?

To address the main research questions and explore the two research subquestions, I invited six participants to take part in this study. Three participants provided insights from the

perspective of learners, while the other three offered perspectives as instructors. All participants had prior experience with asynchronous discussions before the COVID-19 pandemic.

Data gathering involved semi-structured interviews with the participants, allowing for a free-flowing conversation to capture their narratives. I recorded the interviews and later engaged in reflective and reflexive listening, immersing myself in learning how to weave a tangible tapestry. Weaving the dissertation tapestry helped me gain deeper insights and provided me with an opportunity to revisit and reflect upon the participants' and my own experiences in discussion-based online courses.

Over the span of six months, I meticulously crafted my dissertation tapestry. This tapestry metaphorically represented the transformative journey from ignorance to proficiency. Drawing upon the notions of deeper learning and its emergence at the intersection of mastery, identity, and creativity, I reflexively restored, analyzed, and interpreted the participants' narratives. After several rounds of rigorous data analysis and interpretation, two sets of findings emerged. The first set addresses the two subquestions, while the second comprises the study themes and recommendations, relating to the two main research questions. Next, I summarize findings pertaining to the research subquestions.

Subquestions Findings

Instructors' Perspectives. As concerns the instructors' perceptions of eNVC, Kacia, Patricia, and Caitlyn provide valuable insights into the perceptions of eNVC and its role in promoting or hindering deeper learning through interaction and engagement in online course asynchronous discussions. They shed light on the significance of various eNVC categories, including chronemics, eSET, 2D visuals, and the absence of or pauses in communication,

295

which are also perceived as silence. These categories of nonverbal cues intertwine with one another and with words, similar to the strands of a tapestry, to create meaning and enhance communication. However, the instructors recognize that the relative importance of each category may vary depending on the specific communicative situation, and understanding this relationship is essential for fostering interaction, engagement, and deeper learning in the online learning environment.

Starting with chronemics, the instructors emphasize the importance of time-related cues. They recognize that timing, sequencing, workload, and frequency play crucial roles in facilitating effective interaction and engagement in discussion-based online courses. The instructors highlight the significance of the instructor's initial participation, which sets expectations and creates a welcoming environment for students. As the course progresses, the instructors strategically adjust their frequency of participation to avoid dominating discussions and allow students sufficient time for reflection. Managing virtual time, where students operate at their own pace, poses challenges, and instructors need to navigate this dynamic to ensure optimal engagement and interaction.

Moving on to eSET, the instructors underscore the value of establishing a human voice in online discussions. They perceive style, effort, and tone in written messages as reflections of their unique qualities and experiences. With deliberate intent, the instructors strive to create positive learning experiences by providing additional resources, personalizing responses, and encouraging students to engage in meaningful dialogues and synthesize information. Quality interactions that encourage critical thinking and deeper understanding take precedence over mere quantity of participation. By infusing their eSET into online discussions, the instructors

aim to foster rapport, trust, and a sense of community among students, ultimately enhancing their learning experience.

Within the category of 2D visuals, the instructors recognize the impact of visual cues on communication and engagement. They emphasize the role that the post layout and appearance can play in enhancing interactions and improve the readability of online discussions. Visual elements such as images, illustrations, emojis, pictures, and GIFs can effectively convey emotions, soften critique, and add humor to discussions. However, the instructors caution against overusing visuals, as this can lead to cognitive overload and distract from the main focus of the discussions. They advocate for a purposeful and balanced integration of 2D visuals to enhance understanding, maintain student engagement, and create a visually appealing learning environment.

In the context of the absence of interaction and/or pauses in communication, the instructors acknowledge the communicative nature of silence in online discussions. They understand that silence can convey meaning and intentions such as taking time for quiet cognitive engagement before active engagement in the course discussions. The absence of interactions or response, and the duration of pauses are considered significant aspects of eNVC. However, the instructors also recognize the complexities of interpreting silence in the text-based online environment. Uncomfortable silence, in particular, can pose challenges in asynchronous discussions as it may indicate a lack of participation, disengagement, or a need for further assistance. Instructors are attentive to these moments of uncomfortable silence and actively work towards creating a safe and supportive environment where students feel encouraged to contribute and ask for clarification.

In short, the instructors' insights regarding eNVC categories highlight their significance and impact on interaction, engagement, and deeper learning in online course asynchronous discussions. By skillfully employing instructional strategies centered around chronemics, eSET, 2D visuals, and the absence of/pauses in communication, instructors can create an engaging learning environment.

Learners' Perspectives. To address the second research subquestion, I thoroughly examined the narratives of Casti, Subee, and Jasmine to explore their perceptions of eNVC categories and their influence on deeper learning through interaction and engagement in online asynchronous discussions. These learners provide valuable insights into the significance of chronemics, eSET, 2D visuals, and the absence of or pauses in communication as summarized next.

When it comes to chronemics, the learners' narratives shed light on the positive impact that well-managed timing and consistent engagement from instructors can have on their learning experiences. For instance, Casti emphasizes how his first online instructor's organization, helpfulness, and prompt responses contributed to a synchronized learning environment. He perceives her as being present but not dominating the discussions, creating an atmosphere where learners felt valued and supported. Similarly, Jasmine appreciates instructors who post in a timely manner, as it conveys a sense of mutual respect and fosters a positive learning environment.

In terms of eSET, the learners highlight the importance of instructors' caring, empathetic, and responsive behaviors. Subee particularly praises an instructor who showed impressive engagement by reading everything and inspiring increased peer-to-peer interactions. This active involvement from instructors motivates learners to participate more actively and

engage in meaningful discussions. Jasmine also emphasizes the impact that prompt responses from instructors has on her own teaching practice, as she recognizes the value of addressing students' queries promptly to create a supportive and responsive learning environment.

The learners' narratives also underscore the significance of 2D visuals in facilitating interaction and engagement. Casti highlights the use of profile pictures and images shared by peers, as they help create a sense of social connection and spark conversations. Having a visual representation of their peers allows learners to form a more personal and meaningful connection, enhancing their overall engagement in online discussions. Additionally, learners recognize the importance of effective formatting techniques, such as using paragraphs and spacing, to improve the readability of posts and encourage interaction.

Another important aspect of eNVC is the absence of or pauses in communication. The learners express their views on the significance of response or lack thereof in online discussions. Subee emphasizes the importance of acknowledging others' posts, as it reflects respect and fosters engagement. On the other hand, the absence of response can lead to feelings of frustration, anxiety, and disengagement, as mentioned by Casti and Jasmine. Their experiences highlight the need for instructors to actively engage with students' contributions and provide consistent feedback to maintain a sense of connection and motivation.

Main Questions Findings

As emphasized in the summary of findings from the research subquestions, the shared experiences of the six study participants echo prevalent notions in distance education literature. Some of these notions pertain to the challenge of fostering high levels of interaction and engagement in asynchronous discussions, a well-recognized concern in the field of distance education. Among the various factors contributing to this concern, the role of instructors and

effective facilitation is consistently highlighted as being critical in enhancing interaction and engagement in these forums (Andresen, 2009; Guldberg & Pilkington, 2007).

Research suggests that simply providing technological tools and posing discussion questions does not guarantee successful asynchronous discussions, particularly those that foster deeper learning. Without a thoughtfully designed and effectively facilitated environment, students might struggle to engage in meaningful dialogues, which could adversely impact their overall learning experience and satisfaction (Dennen, 2005; Oh & Kim, 2016).

Motivated to delve deeper into this area, I combined the findings from data analysis and interpretation with insights derived from my tapestry-making experience. This integrative approach led to the emergence of four key themes addressing the first main research question and practical recommendations pertaining to the second main research question.

In the following sections, I outline these findings, summarizing the themes and recommendations that have emerged from this study. Each theme and recommendation directly relates to the concept of deeper learning, underscoring the potential of eNVC in enriching online asynchronous discussions.

Overview of Research Themes. As detailed in the second part of Chapter 8, in response to the first main research question, four themes that emerged from my own experiences as well as those shared by the participants during the interviews. These four themes are: To and Fro Again, Negative Space, Reflexive Apprenticeship, and Layered Growth. These themes are visually represented in the Themes Illustration **(**Figure 35**),** with a mirrored question mark at the center symbolizing my Lebanese-Canadian identity and the reflexive nature of my research methodology. The themes do not follow a specific sequence

but interweave, much like the threads of my dissertation tapestry, contributing collectively to a deeper understanding of the research puzzle as I summarize next.

Overview: To and Fro Again. The theme To and Fro Again emphasizes the continuous nature of interactions and dialogues within online course discussion forums. Inspired by the repetitive back-and-forth motion of weaving my dissertation tapestry, this theme explores how the exchange of ideas, experiences, and feedback in asynchronous online discussions can enhance the depth and breadth of learning. The chronemics aspect of eNVC is embodied in the word "Again", indicating that interactions unfold over time, much like the weaving of a tapestry.

Online course discussion forums enable learners to continually share ideas, experiences, and feedback. However, the asynchronous nature of these interactions, also an aspect of chronemics, provides pauses that allow for reflective thinking. As highlighted by the study participants, the frequency and timeliness of these interactions are of considerable importance.

Dialogue, an essential component of discussion-based online courses, facilitates dynamic exchanges of ideas between students and instructors and among students themselves. This theme underscores the importance of fostering deeper learning through dialogue. Study participants highlight the depth such dialogues can achieve, stressing the unique advantages of online learning environments, primarily the reflective time learners can take before posting or replying, another feature of chronemics.

Encouraging the back-and-forth nature inherent in the To and Fro Again theme, participants noted the importance of keeping posts concise and focused. This approach not only streamlines dialogue but also encourages learners to engage without feeling overwhelmed. Participants also emphasized the significance of writing style and tone, which, as components

of eNVC, convey positive attitudes or emotions, thereby creating an engaging and supportive learning environment that fosters deeper learning. This speaks to the eSET category of eNVC.

Social connections and shared understanding are also key factors in creating an engaging online learning experience. When learners feel connected to their peers and instructors, they are more likely to actively participate in online course discussions. Questions and genuine interest in peers' perspectives stimulate further discussions and engagement, which, in turn, contribute to a more comprehensive and enriching learning experience.

Overview: Negative Space. The theme "Negative Space" in online course discussions draws its concept from art, where it refers to the void or absence around and between objects or forms, often used for balance, contrast, and emphasis. In online discussions, it pertains to the time and space students take away from active engagement. I demonstrate this concept in my dissertation tapestry through negative weaving, where the absence of woven sections signifies the concept of negative space.

Negative Space in online discussions is particularly linked with the eNVC category of absence of or pauses in communication, and it can potentially create a balance between observable and non-observable engagement dimensions. It also provides a temporal buffer for learners to assimilate feedback, refine their work, and improve their performance, which speaks to chronemics. However, Negative Space can have both positive and negative implications.

On the positive side, Negative Space provides the opportunity for learners to pause, process information, connect ideas, and deepen their understanding of the course material. This is particularly beneficial in asynchronous discussions, where learners have the flexibility to balance their diverse responsibilities and process information at their own pace. The

chronemics category of eNVC, which relates to how people use, perceive, and structure time, is particularly relevant in this context.

On the negative side, excessive or unproductive Negative Space can foster feelings of disconnection and disengagement among students. The eNVC category of absence from interactions comes into play here, contributing to an uncomfortable silence that can hinder deeper learning. Prolonged breaks from course interactions – on the part of instructors or learners – can disrupt the rhythm of learning and may result in feelings of isolation for learners.

To maximize the benefits and minimize the drawbacks of Negative Space, the study participants suggest that instructors should actively monitor and participate in discussion forums, demonstrating leadership and responsiveness to students' needs. They also emphasize the importance of being attentive to meanings that emerge in the absence of words, much like the concept of Negative Space in art. This approach, when combined with genuine empathy and care, can help create a more inclusive and engaging online learning environment.

Overview: Reflexive Apprenticeship. Reflexive Apprenticeship has its roots in the experiences and reflections of participants on their learning journey. It signifies learners' process of observing and imitating more experienced individuals, coupled with the instructors' reflective practices to improve their teaching methods. This theme intertwines the principles of traditional and cognitive apprenticeship, highlighting the importance of practicing skills, observing experienced individuals, and continuous self-exploration in refining one's praxis.

The Reflexive Apprenticeship theme originated from my reflexivity while deepening my understanding of learning, and aims to reflect the participants' insights on modeling, mirroring, and skill acquisition through observing experienced individuals in online course

discussions. Learner narratives, such as Casti's admiration for an empathetic instructor and Jasmine's comfort in sharing personal experiences, exemplify this recurring theme.

However, Reflexive Apprenticeship goes beyond observation and replication. It involves instructors' ongoing learning through reflection and evaluation of their own practices. For example, Caitlyn's iterative process of experimenting with different approaches and technologies to refine her instructional practice aligns with the concept of critical reflexivity, emphasizing self-exploration to enhance teaching.

Additionally, Reflexive Apprenticeship combines principles from traditional and cognitive apprenticeship. Traditional apprenticeship focuses on learning manual skills within a community of practice, while cognitive apprenticeship applies principles to complex cognitive skills by making thinking processes explicit (Alwafi, 2023; Collins et al., 1988). Therefore, the Reflexive Apprenticeship theme encompasses observing, imitating, and practicing skills, along with ongoing self-exploration through reflexivity to improve praxis. This self-referential loop of observation, reflection, and practice within a socio-cultural context forms the foundation of Reflexive Apprenticeship.

Overview: Layered Growth. The Layered Growth theme in this study symbolizes the gradual development of knowledge and skills over time. This process is facilitated through active engagement in online course activities and discussions. It uses the metaphor of the spiraling shells of shellfish to represent the iterative nature of deeper learning. This metaphor aligns with my understanding of deeper learning as a continuous, spiral-like process, which I visually depict in my dissertation tapestry.

In addition to illustrating the progressive nature of learning, the Layered Growth theme also embodies the harmonious integration of various knowledge domains. This aspect mirrors

the interconnectedness of individual tapestry threads, each contributing to the formation of a comprehensive whole. Similarly, in the learning process, diverse knowledge areas contribute to a learner's holistic development. This theme highlights that learning is not a static process; instead, it is dynamic, where knowledge and understanding deepen and expand over time, each layer building upon the previous one. This particularly speaks to the close connection between layered growth and time, which concerns the chronemics category of eNVC.

Collectively, these four themes underscore how eNVC can promote deeper learning through interactions and engagement in online course discussions. As articulated in Chapter 8, these themes are not separate from each other, but rather they overlap and interweave. The concept of deeper learning, encapsulated in these themes, is characterized by continual striving for self-improvement, embracing risks, and perceiving failures as learning opportunities. The themes underscore the importance of not just mastering knowledge but also nurturing creativity and cultivating personal identity through the learning process. Therefore, they present a holistic view of learning in discussion-based online courses, where knowledge is not merely acquired but is actively constructed through engagement, dialogic interactions, and reflexive thinking and practice.

Overview of Recommendations

To address the second main research question, I compiled a comprehensive list of recommendations that emerged from the inter-storied responses of the research participants. Below is a brief summary of the recommendations which focus on the integration of eNVC across four levels: Institutions and Program Heads, Course Creators and Instructional Designers, Instructors and Facilitators, and Learners.

1. Institutions and Program Heads: Focus on faculty development and consistency,

creativity and reflexivity through eNVC, community building and support, course design and evaluation, and policy development. This involves professional development programs; promoting innovative technological tools; mentorship programs for novice online instructors; and ensuring consistent online education practices across programs and/or courses within the same program of study.

2. Course creators and instructional designers: Bridge eNVC understanding and practice, create an inclusive and comfortable learning environment, design for engagement and interaction, and foster collaborative course design. This includes incorporating eNVC into course design; designing for diversity; considering learning preferences; and fostering collaboration with instructors and content experts.

3. Instructors and facilitators: Be mindful of online interactions in terms of chronemics, style, effort, tone, 2D visuals, absences from the course discussions or pauses in communication, and leverage technology for facilitating discussions. Instructors should set clear expectations; maintain a consistent online presence; encourage the strategic use of visuals; and adapt to students' needs.

4. Learners: Develop time management skills and become mindful of style, effort, and tone conveyed through communication in discussion forums. Enhance understanding with 2D visuals and navigate silence and non-response in online discussions. This involves enriching discussions with relevant resources; engaging actively; and acknowledging others' contributions to foster a supportive learning environment.

These recommendations aim to enhance interaction and engagement in discussion-based online learning environments, emphasizing the importance of effective communication, collaboration, and adaptability to enhance the overall online learning experience.

Significance and Praxis

This study adds to the existing body of literature in distance and online education by delving into a relatively under-explored area: the role of nonverbal communication in asynchronous discussion forums. By shedding light on the influence and potential of eNVC on learning experiences, this study also encourages scholars and practitioners to perceive online courses from a communication perspective. This perspective is key to any relational situation, asynchronous discussion forums included. Weaving threads from the communication discipline into online education can therefore inform online learning practices.

Points highlighted in the previous paragraph align well with the artographic and reflexive methodological approach of this study, which concerns explorations for the purpose of developing praxis (Cunliffe, 2016; Irwin et al., 2018; Lyle, 2023). Accordingly, a significant implication of this dissertation tapestry lies in its potential to inform the professional development of faculty. This is particularly pertinent for educators who are new to online instruction or have predominantly used video conferencing tools for online teaching, a trend amplified by the COVID-19 pandemic. As Kacia, an instructor participant, aptly puts it:

> Well, the world went online without knowing how to maneuver themselves. They were asked to drive a truck when they only had the license for a car. So now they think they are truck drivers, but they aren't … there are other ways to do that driving. [Instructors] need to invest in themselves, first and foremost, before they can even assume to be able to help the students online.

Kacia's quote highlights a post-pandemic need for a paradigm shift, requiring substantial professional development of those pivotal in distance education, especially instructors. This involves amplifying their skills to effectively project their *human voice* and

guide students towards deeper learning within asynchronous discussion forums. As the study suggests, this transformation can significantly enrich learning experiences, leading to a more engaging and meaningful online education.

Moving beyond mere theoretical contributions, the significance of this study lies in its provision of practical recommendations to develop praxis and enhance the quality of learning experiences in discussion-based online courses. These recommendations include:

- *Elevating Online Teaching and Facilitation:* The study underscores the crucial role of instructors in driving engagement in discussion forums. It provides insights on effectively managing eNVC related to the pace and rhythm of online interactions, defining expectations, and promptly responding to students' needs.

- *Informing Course Design:* The findings can guide course designers in creating more effective and engaging online courses, considering eNVC factors such 2D visuals and sequencing and timing of course activities.

- *Enhancing Learner-Learner Interactions:* The research suggests that increased instructor attentiveness and engagement through eSET can inspire learners to participate more actively, leading to deeper learning and improved outcomes.

- *Adapting to the Online Learning Shift:* The study findings can equip instructors and students with strategies to navigate the online learning landscape more effectively, offering practical suggestions for enriching online discussions and promoting deeper learning.

In light of its wide-ranging applications and implications, I see this study as a valuable resource in shaping the professional development of faculty, especially those transitioning to or refining their online instruction skills. The insights and recommendations drawn from this

research can guide educators to navigate the complex landscape of online education effectively and to incorporate eNVC in their teaching seamlessly. My ultimate aim is to provide a solid foundation for creating a more robust, engaging, and inclusive online learning environment, thereby fostering enhanced teaching practices and deeper learning experiences for all parties involved in it.

Limitations and Future Research

While this dissertation meticulously constructs an intricate tapestry of narratives and experiences to delve into the multifaceted nature of eNVC and their potential influence on deeper learning, I acknowledge the limitations that shaped its design and subsequent findings.

One significant constraint is tied to the chronemics of this scholarly work itself, being a doctoral pursuit inherently bound by timelines. To complete the data gathering within a reasonable period of time, I selected participants from my own network who met the selection criteria listed in Chapter 4. This decision was guided by the tenets of narrative research, which emphasizes the necessity of establishing relational engagement and trust with participants prior to data collection (Caine et al., 2013; Clandinin et al., 2018). Consequently, my participant selection did not include pairs of instructors and learners from the same program of study or course.

This configuration influenced the depth to which I could explore participants' experiences within the technological mediums used for communication. Therefore, I excluded from this study the potential impact of certain eNVC elements such as log in time stamps, post annotations, course aesthetics, and navigation tools. I consider such elements and their potential impact on learning experiences as an area of significant interest for future research, particularly in light of rapidly evolving educational technologies.

Furthermore, due to the diverse backgrounds of the participants involved in this research, the study was limited in its ability to explore the influence of eNVC on interactions related to institutional common practices ingrained in their respective cultures. Additionally, it was unable to examine the dynamics between participants and their instructors within the same course.

In light of these limitations, several fascinating avenues for future research have been identified:

- *Annotation in Discussions:* The use of annotation in discussion posts emerged as an intriguing feature for further exploration. The capacity to weave comments into the fabric of discussion threads can keep discourse alive and foster curiosity. A deeper understanding of how annotations influence engagement, learning perception, and eNVC could offer valuable insights for enhancing asynchronous online discussions.

- *Comparative Research:* Research in the field of communication and distance education could benefit from probing the perceptions and experiences of both instructors and students from the same course. This approach could provide a more nuanced understanding of the dynamics of eNVC within a specific course context and open avenues for a comparative analysis of eNVC strategies.

- *Modeling/Mirroring:* The notion of modeling desired online behaviors or mirroring actions that are well-received by others surfaced as a recurring theme in this study. Given its prominence in narratives, it presents a compelling area for future research. Typically associated with behaviors and actions, this concept could be expanded to include visual aspects of online discussions, such as font style or color. Exploring how these visual elements contribute to eNVC and influence communication in

asynchronous online discussions could offer intriguing insights.

As I reflect on these limitations and potential research directions, I remain committed to continually refining my understanding of eNVC in asynchronous online courses. This commitment mirrors the ongoing process of weaving and refining a tapestry, where every strand contributes to the overall pattern, and the weaving process is as important as the final product.

Final Reflections: What Makes it a Tapestry?

Drawing inspiration from Burgoon et al. (2010), who liken the intertwining of verbal and nonverbal cues to threads in a tapestry, this dissertation interweaves insights from the experiences of the research participants and my own within the fabric of eNVC in discussion-based online courses. To unravel the intricate interplay of verbal and nonverbal cues that contribute to holistic communication, I crafted a tangible tapestry, which depicts the role of eNVC in promoting deeper learning through interaction and engagement in asynchronous online course discussions.

Displaying this tapestry at a conference (Figure 40), an observer remarked:

"This is not a tapestry!"

This unexpected comment prompted further discussions, leading me to contemplate the essence of my creation.

Upon delving into the nuances of this textile art, I discovered that there are, indeed, diverse forms of tapestry-making. One such form involves needlework techniques, where colored threads are inserted via a needle into a canvas base (Elder, 2020). This understanding clarified the observer's perspective, leading me to question:

But is my tapestry *truly* a *tapestry*?

Figure 40

Tapestry Display in a Conference

Upon further inquiry, I realized that the essence of a tapestry lies not in the weaving

technique but in the image it creates. A tapestry, as an art form, heavily relies on image-

creation, composed of various discontinuous threads (Mezoff, 2020). This labor-intensive

process requires the weaver to meticulously place each thread, carefully considering its color,

texture, and relationship to others, to form a cohesive whole. This parallels the creation of this

dissertation, where diverse pieces of information, experiences, and insights, akin to the threads

of a tapestry, are interwoven to broaden understanding of nonverbal communication in the

online learning landscape.

The journey of tapestry-making and its ultimate completion serves as an allegory for my process of exploration, reflection, and synthesis in this research. Each thread, carefully chosen and thoughtfully woven, symbolizes a narrative, an insight, and a unique contribution from the research participants. As the researcher-weaver, my task transcended pattern creation; it involved curating these diverse experiences into a unified, multi-layered narrative, mirroring the nuances of eNVC in online learning environments.

Throughout the process, I pondered the interaction of each piece with the others and evaluated their collective contribution to the whole. From time to time, my reflection mirrored back at me through the warp threads, serving as a symbolic reminder of my obligations as the tapestry-maker. This in-depth process underscored the importance of reflexivity in my journey, stimulating introspection about my position as an artographer, and the evolution of my identity into a reflexive scholar experiencing deeper learning through the act of weaving.

So, *why* is my dissertation a tapestry?

My response is because, like a meticulously woven tapestry designed to represent one whole image from different narratives, this dissertation presents a unified story derived from disparate insights and information. Just as the dedicated weaver in The Art of Making a Tapestry video (Getty Museum, 2015) is described as investing "a part of herself in the work," I, too, poured a part of my entire *self* into this dissertation. Embracing the spirit of traditional tapestry-making, which sees a finished tapestry as a celebration honoring the artistry of its creators, I look forward to celebrating this humble work of my head, hand, and heart alongside all the wonderful individuals who have contributed to its creation and other scholars in the field. My sincere hope is that this research serves as a valuable resource for educators, course

designers, researchers, and institutions engaged in online education, sparking reflection and driving improvements.

As I glance one more time at my (un)finished tapestry on the wall of my home office, I recall moments of crafting this dissertation over the years. Throughout this process, I embodied the characteristics of a deeper learner – I persevered, dedicated myself to the process, and embraced risks. The act of weaving evolved from a yearning for understanding into a transformative journey, shaping my identity as a researcher-weaver. I discovered joy, growth, and profound learning within the threads, finding value in the lessons learned from mistakes. The most gratifying part of this process is that my (un)finished tapestry now stands as a tangible representation of my research and deeper learning experiences. It acts as a reminder that fulfillment lies not only in the end result but also in the ongoing journey that I have undertaken...

...and the journey continues…

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Appendix A: Ethical Approval

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: 24544

Principal Investigator:
Mrs. Rima Al-Tawil, Graduate Student
Faculty of Humanities & Social Sciences\Doctor of Education (EdD) in Distance Education

Supervisor:
Dr. Debra Hoven (Supervisor)

Project Title:
Electronic Nonverbal Cues and Deeper Learning: Tapestry of Interwoven Asynchronous Discussion Threads

Effective Date: November 08, 2021   **Expiry Date:** November 07, 2022

Restrictions:

Any modification or amendment to the approved research must be submitted to the AUREB for approval.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

A Project Completion (Final) Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date: November 08, 2021**

Michael Lithgow, Chair
Faculty of Humanities & Social Sciences, Departmental Ethics Review Committee

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL - RENEWAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: 24544

Principal Investigator:
Mrs. Rima Al-Tawil, Graduate Student
Faculty of Humanities & Social Sciences\Doctor of Education (EdD) in Distance Education

Supervisor/Project Team:
Dr. Debra Hoven (Supervisor)

Project Title:
Electronic Nonverbal Cues and Deeper Learning: Tapestry of Interwoven Asynchronous Discussion Threads

Effective Date: November 08, 2022   **Expiry Date:** November 07, 2023

Restrictions:

Any modification/amendment to the approved research must be submitted to the AUREB for approval prior to proceeding.

Any adverse event or incidental findings must be reported to the AUREB as soon as possible, for review.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

An Ethics Final Report must be submitted when the research is complete (*i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable)*) or the research is terminated.

Approved by: Date: October 17, 2022

Paul Jerry, Chair
Athabasca University Research Ethics Board

Athabasca University Research Ethics Board
University Research Services Office
1 University Drive, Athabasca AB Canada T9S 3A3
E-mail rebsec@athabascau.ca
Telephone: 780.213.2033

Appendix B: Invitation to Participate

eNVC and Deeper Learning:
Weaving Discussion Threads of Narratives into the Dissertation Tapestry

November 9, 2021

Principal Investigator (Researcher): | **Supervisor:**
Rima Al-Tawil | Dr. Debra Hoven
Email: raltawil1@athabasca.edu | Email. debra@athabasca.edu

You are invited to participate in a research study about nonverbal communication in higher education discussion-based online courses. I am conducting this study as a requirement to complete my Doctor of Education in Distance Education. The aim of this research is to gain insights into the nonverbal cues that instructors and learners perceive as promoting deeper learning through interaction and engagement in discussion forums.

I am inviting you because you have a minimum one-year experience in online higher education in a Canada-based university prior to COVID-19. The online courses you have taken part in (as an instructor or learner) were fully online, with required participation in discussion forums.

Participation in this project involves taking part in a semi-structured interview via Zoom for 45-90 minutes, during which we will discuss your experiences with interaction and engagement in the online course discussion forums. You can use images, screenshots, or any other examples that help you tell stories about your experiences. Once your stories are written, you will need to spend some time (30-90 minutes, depending on the length of the stories) to review, update, and confirm the written versions. We will discuss this process either by email or at the beginning of the interview and adapt it to what suits you best. Participation will take approximately 2 to 3 hours of your time, but additional follow-up conversations may be scheduled at your convenience if needed. Your stories, along with other participants' and mine, will inspire the design of an actual tapestry that I will weave while conducting this research.

This research is beneficial because it will raise awareness around nonverbal communication in discussion-based online courses, and the way this may impact learning experiences. The anticipated outcome is a list of recommendations that will inform best practices of instructors new to online education. There are no anticipated risks that will result from your participation in this research.

Thank you for considering this invitation. If you have any questions or would like more information, please contact me, (the principal investigator) by e-mail at raltawil1@atahbasca.edu or my supervisor by email debrah@athabascau.ca.

This study has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns regarding your treatment as a participant in this study, please contact the Research Ethics Officer at 780.213.2033 or by e-mail to rebsec@athabascau.ca.

Thank you for your assistance in this project.

Rima Al-Tawil

Appendix C: Letter of Information

eNVC and Deeper Learning:
Weaving Discussion Threads of Narratives into the Dissertation Tapestry

November 9, 2021

Principal Investigator (Researcher):   **Supervisor:**
Rima Al-Tawil   Dr. Debra Hoven
Email: raltawil1@athabasca.edu   Email. debra@athabasca.edu

You are invited to take part in a research project entitled eNVC and Deeper Learning: Weaving Discussion Threads of Narratives into the Dissertation Tapestry.

This form is part of the process of informed consent. The information presented should give you the basic idea of what this research is about and what your participation will involve, should you choose to participate. It also describes your right to withdraw from the project. In order to decide whether you wish to participate in this research project, you should understand enough about its risks, benefits and what it requires of you to be able to make an informed decision. This is the informed consent process. Take time to read this carefully as it is important that you understand the information given to you. Please contact the principal investigator, Rima Al-Tawil if you have any questions about the project or would like more information before you consent to participate.

It is entirely up to you whether you take part in this research. If you choose not to take part, or if you decide to withdraw from the research once it has started, there will be no negative consequences for you now, or in the future.

Introduction
My name is Rima Al-Tawil, and I am a Doctor of Education in Distance Education student at Athabasca University. As a requirement to complete my degree, I am conducting a research project about nonverbal communication in higher education discussion-based online courses. The aim of this research is to explore the nonverbal cues that instructors and learners perceive as promoting deeper learning through interaction and engagement in discussion forums. I am conducting this project under the supervision of Dr. Debra Hoven.

Why are you being asked to take part in this research project?
I am inviting you to participate in this project because you have a minimum one-year experience in online higher education in a Canada-based university prior to COVID-19. The online courses you have taken part in (as an instructor or learner) were fully online, with required participation in discussion forums.

What is the purpose of this research project?

The purpose of this project to explore the stories that you, as well as other instructors and learners, may tell about your experiences regarding interaction and engagement in the discussion forums, and the way this may influence learning experiences. Your stories, alongside the other participants' and my own, will be interwoven into a tangible tapestry, which I will learn how to weave throughout the duration of the research. I anticipate the research outcomes to include a list of recommendations that will inform good practices of instructors new to the online education landscape.

What will you be asked to do?

To tell your stories, I will ask you to participate in a virtual semi-structured interview via Zoom for 45-90 minutes. During the interview, you can talk about your experiences in online courses, and tell stories about actions or behaviors that you perceive as encouraging or impeding interaction and engagement in the discussion forums. You can use pictures, images, graphics, screenshots, or any other examples that you think provide insights into your stories. Once I transcribe and rewrite your stories, you will need to aside some time (30-90 minutes, depending on the length of the stories), to review the rewritten versions of your stories, and update them as you see fit. We will discuss the process of rewriting, reviewing, checking, and approving your stories either over emails, or at the beginning of the interview. Note that the meetings will be audio and video recorded, and communication via emails will be documented. The interview and subsequent activities will be arranged and scheduled at a time that is convenient to your schedule.

Additional follow-up conversations may be scheduled to give you an opportunity to review the final stories and provide you with an opportunity to further alter or clarify your stories.

What are the risks and benefits?

This research will increase awareness about the role of nonverbal communication in discussion-based online courses, and the way this type of communication may impact interaction and engagement in discussion forums. Insights from the stories will inform the best practices of instructors transitioning to online learning, as well as improve learning experiences and elevate the opportunities for reaching deeper levels of learning in online courses. There are no anticipated risks that will result from your participation in this research.

Do you have to take part in this project?

As stated earlier in this letter, involvement in this project is entirely voluntary, and there are no negative consequences if you choose not to participate. You may refuse to talk about any specific topic raised during the interview, as well as change or delete any part of your story at anytime while writing this research. You may also refuse to share any information that you are not comfortable sharing. You may withdraw from the study at any time during the data collection and analysis phases by contacting me at raltawil1@athabasca.edu. I will then remove all your data and themes associated with it from my records. Data after writing the research findings, by February 2022 will no longer be removed.

How will your privacy and confidentiality be protected?

The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use or disclosure.

I will observe confidentiality by keep your information, as well as the information of your educational institution, throughout this study. All information will be kept confidential, unless legislation or a professional code of conduct requires that be reported.

How will my anonymity be protected?
Anonymity refers to protecting participants' identifying characteristics, such as name or description of physical appearance. Throughout this study, your anonymity will be maintained by replacing your name with a pseudonym that **you choose** and removing any information that reveals aspects of your identity, unless you prefer to keep that information.

Every reasonable effort will be made to ensure your anonymity; you will not be identified in publications without your explicit permission.

How will the data collected be stored?

- All information and data pertaining to this study will be collected and storied electronically, that is, I will not keep hard copies of your signed consent form, stories, or any other information you share.
- All electronic files, including the audio and video recordings of the meetings, signed informed consent, interview transcripts, and all the versions of the stories will be stored in my personal password-protected computer in my home office.
- Backup digital copies of your information will be saved in a secure, password-protected external hard drive (Padlock), and kept in a locked cabinet in my home office.
- The data will be stored in for up to five years, at which point it will be thoroughly and completely deleted.
- Result of this research will be disseminated in various formats, including a final report to Athabasca University.
- There is no anticipated future secondary use of the data. If a later project is designated, further REB will be required.

Who will receive the results of the research project?
- The existence of the research will be listed in an abstract posted online at the Athabasca University Library's Digital Thesis and Project Room and the final research paper will be publicly available.
- The stories, themes, and findings of this research may be in future academic journals and on academic websites that are open to the public (e.g., Google Scholar).
- You will receive final versions of your stories, and a copy of the research findings along with pictures of woven tapestry.

Who can you contact for more information or to indicate your interest in participating in the research project?
Thank you for considering this invitation. If you have any questions or would like more information, please contact me, (the principal investigator) by e-mail raltawil1@athabasca.edu or tawilrim@hotmail.com or my supervisor by Dr. Debra Hoven by email debrah@athabascau.ca. If you

are ready to participate in this project, please complete and sign the attached Consent Form and return it by email by *November 20, 2021*

Thank you.

Rima Al-Tawil

This project has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns regarding your treatment as a participant in this project, please contact the Research Ethics Officer by e-mail at rebsec@athabascau.ca or by telephone at 780.213.2033

Appendix D: Informed Consent

Your signature on this form means that:
- You have read the information about the research project.
- You have been able to ask questions about this project.
- You are satisfied with the answers to any questions you may have had.
- You understand what the research project is about and what you will be asked to do.
- You understand that you are free to withdraw your participation in the research project without having to give a reason, and that doing so will not affect you now, or in the future.
- You understand that if you choose to withdraw after data collection has ended, your data can be removed from the project at your request, up to July 30th, 2022

<u>Please indicate if you agree to the following.</u>

	YES	NO
I agree to be audio-recorded*.	◯	◯
I agree to be video-recorded*.	◯	◯
I agree to the use of direct quotations.	◯	◯
I am willing to be contacted following the interview to verify that my stories are accurately reflected.	◯	◯

Your signature confirms:
- You have read what this research project is about and understood the risks and benefits. You have had time to think about participating in the project and had the opportunity to ask questions and have those questions answered to your satisfaction.
- You understand that participating in the project is entirely voluntary and that you may end your participation at any time without any penalty or negative consequences.
- You have been given a copy of this Informed Consent form for your records; and
- You agree to participate in this research project.

_____   _____

Signature of Participant   Date

Principal Investigator's Signature:

 I have explained this project to the best of my ability. I invited questions and responded to any that were asked. I believe that the participant fully understands what is involved in participating in the research project, any potential risks and that he or she has freely chosen to participate.

_____   _____

Signature of Principal Investigator   Date

Appendix E: Interview Discussion Points

When you think about your **experience** in the course discussion forums, what are the first thoughts that come to your mind?
- What do you think makes those experiences memorable?
- How did these experiences impact you and/or others your participants in the course online discussions?
- How did these experiences (or others) influence your or others' engagement and interaction in the discussion forums?
- How do you think these experiences may have influenced your or others' learning experiences?
- Can you think of any metaphors or images that help describe these experiences?

Describe (tell stories about) the times when you felt that **interaction** was *high*, *low*, or just *right* in the discussion forums.
- What contributed to this level of interaction?
- What do think this level of interaction led to?
- What lessons (if any) did this experience teach you?
- What do you perceive as the ideal level of interaction?
    - o What does this look like?
    - o What are the benefits of such an ideal interaction?

Describe (tell stories about) times when you felt engaged or disengaged in the online course discussions.
- What contributed to your engagement or disengagement?
- How was your engagement or disengagement manifested in the discussion forum?
- What do you think was the result of this engagement or disengagement?
- Which actions/behaviors/activities do you perceive as helpful in increasing the levels of engagement in the discussion forums?
- What do you think the outcome of engagement and disengagement in the online course discussions could be?

Tell about a time when you felt that the online discussions contributed to **deeper** levels of **learning**. What do you think contributed to that level of learning?

Based on your experiences with online asynchronous discussions, what suggestions or **recommendations** would you give to both learners and facilitators new to online education? Give examples that illustrate your point.

Appendix F: Loom in Interviews

Loom – Silent Witness during Data Gathering

Kacia's Interview

Casti's Interview

Patricia's Interview

Subee's Interview

Caitlyn's Interview

Jasmine's Interview

Note: The pictures are screenshots from my interviews with the study participants.
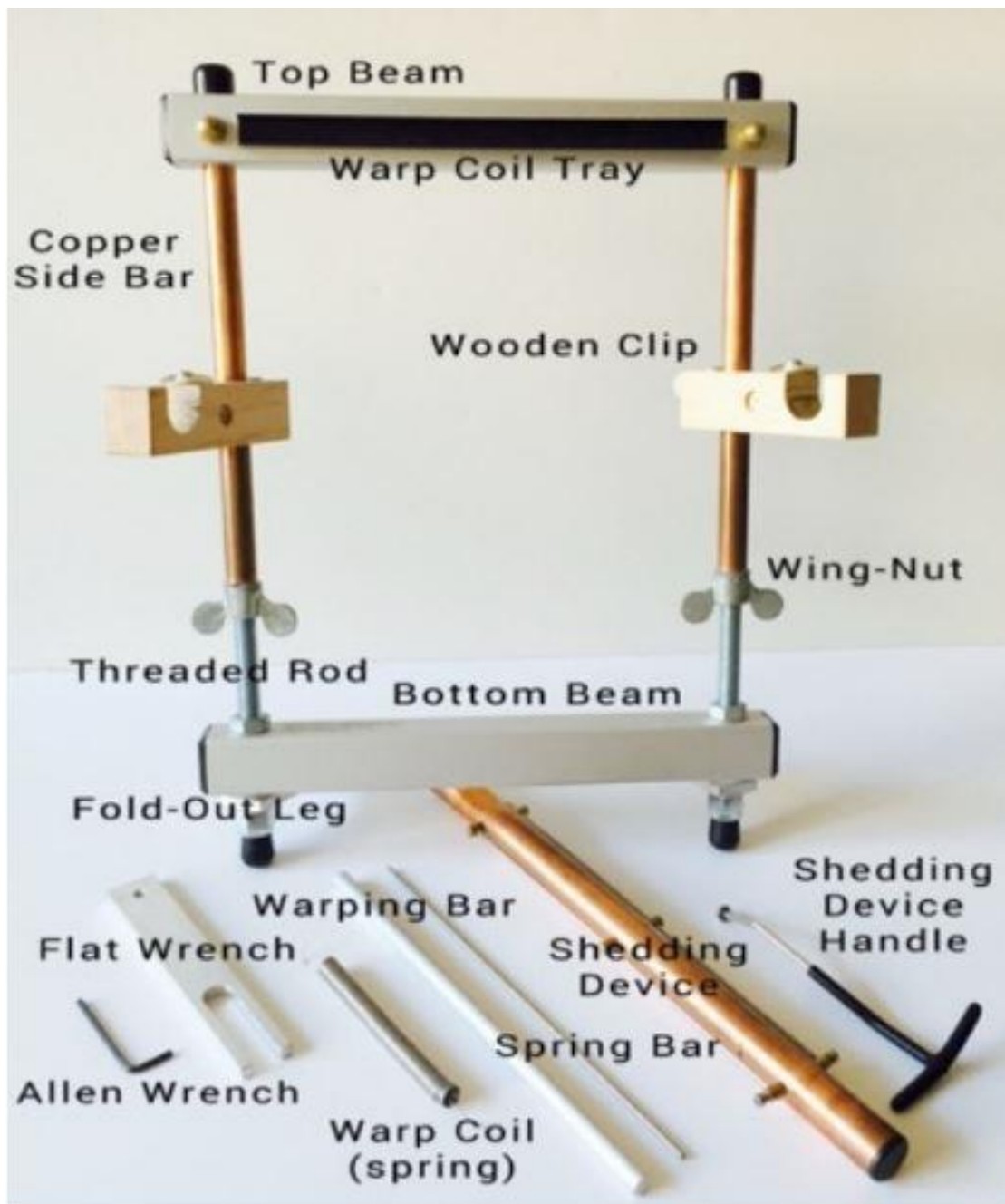
Appendix G: Tapestry Digital Design

Note: This is the sketch I made using Adobe Fresco on my Surface Pro 8, and which I

considered to be my visual dissertation journal.

Appendix H: Mirrix Loom

Names of Loom Parts

Note: Picture retrieved from Mirrix.com website

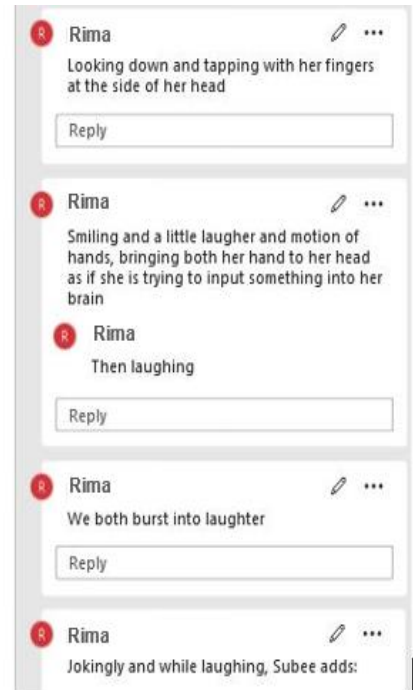**Appendix I: Sample of Transcribed Interviews with Comments**

Subee 09:38
I taught for colleges. That's when I was an online instructor.

Rima Al Tawil 09:45
Awesome. So if we take that experience, for example, in the online courses it didn't bother me not to see the people. But we were having those discussion forums with them. And I felt pretty close.

Subee 10:11
It didn't bother me either. But it wasn't a Zoom meeting, it was a different platform, it was asynchronistic learning, which means you don't really have the picture. I enjoyed seeing the pictures at the beginning of each course, where we had our pictures, and then a description of why we were there and who we were and stuff like that. I really enjoy reading all those, and I read all of them. And I went back to look at pictures just because I'm a visual learner. So I need to know what a person looks like in my head. So when I'm talking to them, it's not just a blank slate, it gives more meaning when I know what their face looks like, and I can put that picture in my head.

Rima Al Tawil 10:55
Yeah, I get the same actually, at the beginning of each course, if I didn't know the people, I would go and click on every profile. And it really bothered me when one of our colleagues had the picture of Angelina Jolie

Subee 11:12

Rima
Looking down and tapping with her fingers at the side of her head

Reply

Rima
Smiling and a little laugher and motion of hands, bringing both her hand to her head as if she is trying to input something into her brain

Rima
Then laughing

Reply

Rima
We both burst into laughter

Reply

Rima
Jokingly and while laughing, Subee adds:

Note: This sample of the Subee's initial interview script shows the comments that I made about my observations of nonverbal cues

Appendix J: Sample of Color-Coded Transcript

About online offerings in his university, Casti says:

Casti 03:25

I would imagine my university implemented online classes around 2018. It seems to me they were new because when I was still an undergrad around 2017-2018, I might have seen one, which was online, but it was more of a very special class; but when I was in my masters, probably roughly 30% were online classes.

Rima 04:18

So, if you think back to your first fully online course, did you have any zoom or Adobe Connect?

Casti 04:58

Not at all. It was like fully online, fully online. Maybe my second course, which was in instructional design, there was some implementation of videos. But the first one, I don't even know what my professor looked like. I think we used **Quercus** or **Blackboard**, I can't even remember, and everyone was like a team; we were just a class there. They're all there.

Initially, I really didn't know what to expect. I was literally just walking around with no road at all, like there's no path for me. But our professor, God bless her, was very nice and very kind. Some things happened to me during that time. They were really devastating. She was very, very, very understanding and fast in response. From the get-go, she laid out expectations for us. It's actually quite fun now that I think about it, she posted this game, like an icebreaker to start everyone to get to know each other. She

Note: This sample of Casti's interview script shows the color-coding system I used to mark portions of the transcripts where participants conveyed emotions, revealed positionality, or narrated a memorable story or event.

Appendix K: Sample Screenshot of Transcript Folder

Note: This screenshot from Patricia's restorying folder shows the several iterations of the transcript during the process of storying and restorying.

Appendix L: NVivo 12 – Manual Coding for Concepts and Relationships

Name					
Program Level	1	2	2022-11-22	RT	2022-
Synchronous	3	7	2022-11-27	RT	2023-
Workload and Obligations	2	4	2022-11-22	RT	2023-
Engagement	6	48	2022-11-20	RT	2023-
Instructor Engagement	4	15	2022-11-20	RT	2023-
Learner Engagement	4	11	2022-11-20	RT	2023-
Enthusiasm	2	4	2022-11-26	RT	2022-
eNVC	7	145	2022-11-20	RT	2023-
2D Visuals	6	23	2022-11-20	RT	2023-
Colour	1	2	2022-11-20	RT	2022-
Diagrams	2	2	2022-11-20	RT	2022-
Emojis	2	5	2022-11-20	RT	2022-
Pictures	3	4	2022-11-20	RT	2023-
Chronemics	7	60	2022-11-20	RT	2023-
Frequency	3	6	2022-11-20	RT	2022-
Pace	0	0	2022-11-20	RT	2022-
Pause	0	0	2022-11-20	RT	2022-
Response Time	4	4	2022-11-20	RT	2022-
Late Response	0	0	2022-11-21	RT	2022-
Timely Response	2	2	2022-11-20	RT	2022-
Time Management	2	4	2022-11-20	RT	2023-
Timing	3	5	2022-11-20	RT	2023-
eSET	6	47	2022-11-20	RT	2023-
Effort	2	3	2022-11-20	RT	2022-
Length	6	17	2022-11-20	RT	2023-
Style	2	2	2022-11-20	RT	2022-
Tone	4	10	2022-11-20	RT	2023-
Silence	5	15	2022-11-20	RT	2023-
Expectations	3	6	2022-11-22	RT	2023-
Feedback	2	7	2022-11-25	RT	2023-
Fun	3	10	2022-11-22	RT	2022-
Identity	3	5	2022-11-20	RT	2023-
Instructor Role	6	34	2022-11-21	RT	2023-
Dominate	2	3	2022-11-22	RT	2022-
Interaction	7	22	2022-11-20	RT	2023-
Benefits	3	3	2022-11-20	RT	2022-
Peer-Peer Interaction	4	7	2022-11-20	RT	2022-
Lessons Learned	5	26	2022-11-20	RT	2023-
Mastery	2	3	2022-11-20	RT	2023-
Memorable	2	2	2022-11-20	RT	2023-
Mistakes	2	2	2022-11-24	RT	2022-
Modeling-Mirrorring	6	17	2022-11-20	RT	2023-
Mirrorring Peers	4	5	2022-11-21	RT	2023-
Participants' Profiles	7	72	2022-11-20	RT	2023-
Beginnings	5	8	2022-11-20	RT	2023-
Educational Background	4	4	2022-11-20	RT	2023-
Pedagogy	4	8	2022-11-20	RT	2022-
Platform	2	4	2022-11-20	RT	2022-
Teaching - Learning Philosophy	6	33	2022-11-21	RT	2023-
Teaching Experience	6	15	2022-11-20	RT	2023-
Questions	5	24	2022-11-21	RT	2023-
Recommendations	7	27	2022-11-20	RT	2023-
For Instructors	6	17	2022-11-20	RT	2023-
For Learners	3	6	2022-11-20	RT	2023-

Relationships

From Name	From F	Type		To Nam	To Fold	Directio
Disengagement	Nodes	Weake		Comm	Nodes	→
eNVC\eSET\Length	Nodes	Weake		Deeper	Nodes	→
Interaction	Nodes	Promot		Deeper	Nodes	→
eNVC\Chronemics\Response	Nodes	Promot		Engage	Nodes	→
Engagement	Nodes	Promot		Deeper	Nodes	→
eNVC\2D Visuals	Nodes	Promot		Interac	Nodes	→
Interaction	Nodes	Enable		Comm	Nodes	→
Engagement	Nodes	Enable		Comm	Nodes	→
Questions	Nodes	Enable		Deeper	Nodes	→
Build-up (Growth)	Nodes	Associa		eNVC\	Nodes	—
Interaction	Nodes	Associa		eNVC\	Nodes	—
eNVC\Chronemics	Nodes	Associa		Deeper	Nodes	—
Expectations	Nodes	Associa		Engage	Nodes	—
Emerging Themes\Design	Nodes	Associa		Engage	Nodes	—
Mistakes	Nodes	Associa		Deeper	Nodes	—
Recommendations	Nodes	Associa		eNVC\	Nodes	—
Recommendations	Nodes	Associa		Questi	Nodes	—
Recommendations	Nodes	Associa		eNVC\	Nodes	—
Recommendations	Nodes	Associa		Fun	Nodes	—
Asynchronous Discussions	Nodes	Associa		Reflecti	Nodes	—

Note: This screenshot from NVivo 12 shows a partial view of my manual coding for relationships.

Note: This screenshot is from NVivo 12 showing portions of the initial manual coding for concepts.

Appendix M: NVivo 12 – Manual Coding for Themes and Recommendations

Cognitive Apprenticeship	5	15	2023-
Emulation	2	4	202
Modeling	5	9	202
Model Behaviour	1	1	202
Modeling-ESET-Sentence Structure	3	4	202
Modeling-Visualization	2	2	202
Observation	2	2	202
Layered Growth	6	44	2023-
Better Self (Professionally, et.,)	2	5	202
Build up and time	5	19	202
ESET-Effort	2	2	202
Instructor Growth-Engagement	3	10	202
Questions and Growth	2	3	202
Sequencing	2	2	202
Time, Colour, Improvement	1	2	202
Negative Space	5	18	2023-
Length-Less is More-Room for Imaginat	2	5	202
Space	1	2	202
Time to Reflect	3	4	202
Time&Space Away	3	6	202
Wonder, Question	1	1	202
Not Promote (Hinder)	4	20	2023-
No Instructor Presence or Leadership	1	2	202
No Response	4	6	202
Not Engagement	2	2	202
Out of Sync (Too Late)	1	1	202
Too Early, Too Often	1	2	202
Too Long	3	4	202
Too Many (people)	1	1	202
Work Overload	1	2	202
To & Fro Again	5	41	2023-
Back and Forth - Feedback	2	3	202
Back and Forth-Dialoguing	3	7	202
eSET-Tone-Enthusiasm-Empathy-Curios	2	6	202
Interaction and Visualization	3	7	202
Light Engagement & Interaction - fun	1	4	202
Like Mindedness	1	1	202
Questions	3	11	202
Social First-other will follow	1	1	202

Note: This screenshot is from NVivo 12 showing portions of my manual coding for themes.

1-Recommendations and Lessons Learned	6	47	202
Instructor	6	29	20
Assessment and Fun (A little)	2	6	20
Be Present-Ask Questions	1	1	20
Expectations (also for program)	1	2	20
Instructional Design	1	1	20
Instructor Learning	1	1	20
Instructor Role	1	1	20
Know the Subject	1	1	20
Make it Enjoyable	1	1	20
Matster the Art of Assessment	1	2	20
Mindset	1	2	20
Prepare	1	1	20
Promptness-Actions	2	2	20
Spreadsheet	1	3	20
Tone & Expectations	2	5	20
Learner	3	13	20
Ask	2	3	20
Be active	1	1	20
Critical thinking	1	1	20
Initiative	1	1	20
Open to New Experiences	2	3	20
Plan	3	4	20
Program	2	5	20
Communicate Expectations	1	1	20
Consistency	2	3	20
Strenght of DB	1	1	20

Note: This screenshot from NVivo 12 shows a partial view of my manual coding for recommendations.