EMPOWERING STUDENTS

Cultivating Agency, Intrinsic Motivation, & Interpersonal Connection Through Co-creating Creative Outputs. A Video Scenario Thesis Project





Empowering Students: Cultivating Agency, Intrinsic Motivation, and Interpersonal Connection Through Co-creating and Creative Outputs. A Video Scenario Thesis Project

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ABSTRACT

In this project, I aim to explore the effects of co-creating creative outputs using design thinking methods on student agency, intrinsic motivation, and interpersonal connection in higher education.

Through a qualitative phenomenological framework, I examine the experiences of undergraduate students, graduate students, and community partners who have engaged in co-curricular projects incorporating design thinking and co-design principles. The design employs creative practice-based research, with data collection through individual interviews and a group workshop employing multiple design thinking methods. The findings will be presented in a creative video scenario, employing Luma Design Thinking Methods, to synthesize and present the data in a visually engaging and narrative-driven format. Through this project I aim to contribute to the existing literature on design thinking and co-creation in higher education, offering insights into the effectiveness of these pedagogical strategies in enhancing student engagement and learning outcomes in particular in the response to perceived challenges faced by some students posed by prolonged remote learning and social isolation during the COVID era.

Keywords: Agency, Co-Creation, Connection, Intrinsic Motivation, Design Thinking, Higher Education, Experiential, Constructivist



Photoshopped image by Maja Anderson

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INTRODUCTION



Photoshopped image at luncheon with students - Maja Anderson

The visiting scholar speaking to my students at an in-person post-COVID luncheon at Cornell University was fascinating. My students, Cornell undergraduates in a selective cohort program who all elected to attend this luncheon, appeared bored, looking out the window and at their phones. Yet, while it was at first difficult to get them to participate when called upon to ask questions and engage with the speaker given enough coaxing, they posed wellconsidered and thought-provoking questions related to the discussion, although most of them did not maintain eye contact when asking their questions. They were paying attention and able to synthesize the information. but their lack of affect did not correspond to their comprehension and engagement. Their expressions were completely flat. Had I not been taking photos of them at the time; I might have missed this.

They were paying attention and able to synthesize the information

As I surveyed the room, I could not help but wonder: how could they appear so disconnected from the discussion yet still absorb the information being presented? It appeared they were stuck in a cycle of transactional interactions, shaped by years of online learning during the pandemic, which had cut them off from their interests, passions, and sense of agency, leaving them feeling disconnected from others and lacking a clear sense of purpose or direction.

As I reflected on this observation I considered the profound impact of the pandemic on their lives. This experience had shaped their outlook, exacerbating what according to recent polling of college students were already growing feelings of disconnection and apathy towards traditional educational models. This phenomenon is not unique to my students, as research suggests that the pandemic has had a profound impact on the mental health and well-being of many young people (Abrams, 2022; Schanzenbach & Turner, 2022)

The post-COVID student is entering adulthood in a world characterized by unprecedented uncertainty and complexity. As they prepare to take on the responsibility of addressing the world's most pressing issues, they are struggling to find their voice, interests, and agency (Active Minds, 2020; Leontopoulou et al., 2023). Against this backdrop, higher education is undergoing a period of significant transformation, necessitating adaptation and innovation (Mok et al., 2022). The traditional educational system is struggling to adapt to the changing needs of today's undergraduates, who are grappling with unprecedented levels of anxiety and uncertainty which has partially led to a crisis of confidence in higher education, with many young people questioning its value and relevance (Korn, 2020). In response to these challenges, futurists like David Staley (2019) in his book *Alternative Universities: Speculative Design for Innovation in Higher Education* proposes radically reimagining higher education institutions envisioning innovative models such as the "Platform University," which leverages technology to create a flexible, personalized learning experience, and the "Nomad University," which abandons the traditional campus in favor of a globally distributed educational network.

These speculative designs challenge conventional notions of what a university can be, offering potential solutions to the current crisis in higher education and addressing the evolving needs of students in an increasingly complex world. As enrollment rates decline and apathy rises among current undergraduates (National Student Clearinghouse Research Center, 2020), Staley's forwardthinking approach suggests that the future of higher education may lie in bold, transformative models that prioritize adaptability, relevance, and student engagement. These innovative concepts could provide a roadmap for institutions seeking to reinvent themselves in the face of changing student expectations and societal demands.



The genesis of my project came from my observations at that luncheon and realizing the dire need for more innovative approaches to higher education. The disconnect between my students' outward appearance and their actual cognitive engagement raises important questions about the skills they need to make intentional choices and recognize their agency in their education, and in the pedagogical structures they will need to succeed. Despite their seeming disengagement, my students demonstrated deep critical thinking when given enough prompting, suggesting a disconnect between their outward affect, and their actual cognitive engagement. This observation led me to contend that this phenomenon may illustrate a gap or lack of fundamental skills these students need, to make intentional choices based on intrinsic motivation and to recognize and understand that they have and can exercise agency in their education (Bandura, 1997). It is this gap that I aim to explore through this project.

The potential to address this group of students' perceived apathy and disconnection, coupled with the broader context of our post-COVID educational challenges underscores the urgency we face to help students connect to their learning experiences. As Staley (2019) suggests, a possible antidote to these challenges may involve engaging students in creative work and more creative and open course structures allowing for this kind of process. Staley speculative models like the "Platform University" challenge traditional educational structures, aligning with the emerging need for students to rediscover their sense of agency and purpose. These models provide a framework for addressing the very gap between students' outward disengagement and their underlying cognitive engagement, suggesting that more flexible, personalized, and creative educational environments may help students in creative projects can foster a sense of agency, intrinsic motivation, and interpersonal connection (Amabile, 1988; Csikszentmihalyi, 1990).

Another impetus for this project emerged from a design audit I conducted using Amabile and Pratt's (2016) Dynamic Componential Model of Creativity and Innovation in Organizations. This model, which emphasizes the interplay between individual creativity, work environment, and organizational factors, provided a comprehensive framework for analyzing the creative processes within educational settings. By applying this model to the design of my students' educational experiences, I identified key areas where innovative approaches, such as co-design and design thinking, could enhance student engagement and learning outcomes. The model's emphasis on the dynamic nature of creativity and innovation aligns well with the evolving landscape of higher education, particularly in the context of post-pandemic learning environments.

Therefore, the goal of this project is to explore whether engaging students in experiential learning opportunities—utilizing design thinking principles and co-creating creative project outputs such as digital storytelling, scenario-based simulations, and alternative world envisioning—all projects I have worked on in the past (see figure 1, p. 12)—might impact their sense of agency, intrinsic motivation, and interpersonal connections, ultimately enhancing their educational experiences.

DEFINITION OF TERMS

Affinity Diagramming: A method of grouping and categorizing ideas, concepts, or data into clusters based on their similarities, characteristics, or themes. (LUMA Institute, 2012)

Agency: The capacity of individuals to act independently and make choices that influence their lives and environments. In the context of education, agency involves students taking ownership of their learning experiences, exercising autonomy, and navigating challenges with confidence and purpose (Dabrowski & Reed Marshall, 2018).

Alternative-world envisioning: A creative and strategic process that involves imagining and developing hypothetical scenarios or worlds that differ significantly from our current reality. This approach is often used in fields like design, literature, futurism, and education to explore potential futures, stimulate innovation, and challenge existing assumptions. The process can involve speculative fiction, design fiction, scenario planning, and other methods to create detailed and immersive visions of alternative realities. These envisioned worlds can serve as a tool for critical thinking, enabling individuals and groups to explore the implications of different technological, social, and environmental changes and to prepare for a range of futures (Dunne & Raby, 2013).

Co-creation: a collaborative process that involves participants working together to create value, solutions, or experiences. It fosters a sense of ownership and collective responsibility among participants, harnessing diverse perspectives and expertise to achieve shared goals. A collaborative process that involves stakeholders working together to create value, solutions, or experiences, fostering a sense of ownership and collective responsibility

Constructivist Perspectives: Theories of learning that emphasize the active construction of knowledge by learners through meaningful interactions with their environments.

Design Thinking: A human-centered approach to problem-solving that emphasizes empathy, iterative learning, and collaboration. It involves understanding the needs of end-users, generating creative solutions, and prototyping and testing ideas to address complex challenges.

Digital Storytelling: A practice of using digital tools and media to create and share narratives. This method combines traditional storytelling techniques with multimedia elements such as images, audio, video, and interactive components. Digital storytelling is used in various fields, to convey messages, share experiences, and engage audiences in a compelling and immersive manner to empower individuals to craft personal or communal stories, making use of modern technology to enhance the narrative and reach a broader audience. Digital storytelling can take many forms, including short films, multimedia presentations, podcasts, and social media content, and it often emphasizes the emotional and experiential aspects of the story being told (Lambert, 2013).

Experiential Learning: A pedagogical approach that emphasizes learning through direct experience, reflection, and active engagement with real-world contexts. It involves hands-on activities, simulations, and immersive experiences that enable students to apply theoretical knowledge to practical situations, deepen understanding, and develop critical thinking skills

Human-centered Design: An approach to innovation that prioritizes understanding the needs, preferences, and experiences of end-users.

Intrinsic Motivation: The drive to engage in an activity or pursue a goal for its own sake, out of genuine interest, enjoyment, or satisfaction, rather than external rewards or pressures (Ryan & Deci, 2000).

Interpersonal Connection: The quality of relationships and interactions between individuals within a learning community, encompassing feelings of belonging, empathy, trust, and support. It encompasses feelings of belonging, empathy, trust, and support among peers, mentors, and the broader community, fostering a sense of connection and collaboration (Scherer Bassani, 2011).

LUMA Methods: A set of methods and approaches from the LUMA Institute used to facilitate learning, creativity, and innovation,

Phenomenology: The study of conscious experience or perception, often used in research and education to understand the subjective experiences and meanings of individuals.

Rose, Thorn, Bud: A method in the LUMA methods to facilitate reflection and idea generation, involving the sharing of positive (Rose), negative (Thorn), and potential (Bud) experiences or ideas.

Self-efficacy Theory: A theory that proposes that individuals' beliefs in their ability to succeed in specific tasks or situations influence motivation, behavior, and achievement outcomes. It posits that self-efficacy beliefs influence motivation, behavior, and achievement outcomes, with higher levels of self-efficacy associated with greater persistence, effort, and resilience in the face of challenges.

Social Emotional Learning: The process of developing skills and competencies related to emotional intelligence, social skills, and self-awareness, enabling individuals to navigate complex social situations and relationships.

Storyboarding: A method used in LUMA methods to visually represent and organize ideas, concepts, or stories, often used in creative and design thinking processes.

Scenario-based Learning: A pedagogical approach that involves presenting learners with realistic, contextualized scenarios or problems to solve. It immerses learners in simulated situations that mirror real-world challenges, prompting critical thinking, decision-making, and problem-solving skills development (Errington, 2010).

Video Scenario: A video-based storytelling technique used in LUMA Methods to facilitate creative thinking, problem-solving, and idea generation. A Video Scenario typically involves creating a short, scripted video that depicts a hypothetical scenario, challenge, or problem. The video is designed to spark imagination, encourage critical thinking, and inspire innovative solutions.



Photoshopped image of students at workshop - Maja Anderson

REVIEW OF THE LITERATURE

In reviewing the literature, I conducted a comprehensive search using several academic databases, including ERIC, PsycINFO, Web of Science, and Google Scholar. These databases were chosen for their broad coverage of educational research, psychology, and interdisciplinary studies. The search terms included combinations of "design thinking," "co-creation," "experiential learning," "student agency," "intrinsic motivation," and "interpersonal connection." Many studies examine the integration of design thinking principles to co-create learning experiences, while others investigate experiential learning opportunities incorporating student-driven creative outputs. Both approaches have shown promise in increasing student agency, intrinsic motivation, and interpersonal connection (Bustard et al., 2022; Devassy et al., 2023).

However, after a thorough literature review, I could not find studies that simultaneously examined the outcomes associated with the three specific types of creative outputs mentioned: participatory digital storytelling, scenario-based simulations, and alternative world envisioning. To explore this gap, I conducted additional searches in ProQuest Central and Scopus, using more specific terms related to these creative outputs in combination with the previously mentioned concepts. While individual studies addressed aspects of these creative approaches, they did not comprehensively examine the combined effects of design thinking methodologies and all three of these specific co-designed creative outputs on student agency, intrinsic motivation. Thus, in this study, I seek to fill this gap in the literature by offering insights into the combined effects of design thinking methodologies and co-designing these specific creative outputs on student agency, intrinsic motivation, and interpersonal connection. With this research, I aim to contribute to the growing body of knowledge on innovative pedagogical approaches that enhance student engagement and learning outcomes in higher education.

Foundational Principles

The foundations of this study are rooted in educational psychology, experiential learning, and constructivist perspectives, which collectively emphasize the active role students play in their learning process. According to Piaget (1954) and Vygotsky (1978), knowledge construction occurs most effectively when learners engage in collaborative, hands-on activities that encourage higher-order thinking. This approach leads to profound shifts in students' understanding of themselves and the world, as they are not passive recipients of information but active participants in its creation. Experiential learning, as outlined by Kolb (2014), reinforces this notion by suggesting that learning is a dynamic process in which knowledge results from the interplay of concrete experience, reflective observation, abstract conceptualization, and active experimentation.

Similarly, Bandura's (1997, 2012) self-efficacy theory highlights the importance of students' beliefs in their own ability to succeed, suggesting that such beliefs directly impact their motivation, behavior, and academic outcomes. Self-efficacy, in conjunction with social interactions and observational learning, shapes not only students' perceptions of themselves but also their agency in academic and social contexts. This theoretical framework underscores the significance of creating educational environments that foster self-belief and encourage students to take ownership of their learning.

Building upon these foundational theories, Bringle and Hatcher (2011) introduce a service-learning framework that integrates academic coursework with community engagement. This approach aligns with constructivist views by emphasizing real-world applications of course concepts and facilitating students' active engagement with community partners. In this model, students' self-efficacy is enhanced through the tangible, real-life application of their academic knowledge, reinforcing the social learning principles of Vygotsky and the experiential cycles of Kolb. Reflection is a key component in Bringle and Hatcher's framework, allowing students to connect their engaged experiences with academic content and gain deeper insights into both. This reflective practice also supports the development of student agency, motivation, and interpersonal connections, as it fosters self-awareness and critical thinking.

The integration of these frameworks serves as a foundation for this study, where I explore the combined effects of design thinking methodologies and co-creation of creative outputs, such as participatory digital storytelling, scenario-based simulations, and alternative world envisioning. These innovative approaches are hypothesized to enhance students' intrinsic motivation, agency, and interpersonal connections by creating learning environments that encourage active participation and collaborative problem-solving.

While self-determination theory, as articulated by Ryan and Deci (2000), has provided extensive insights into intrinsic motivation and well-being, the application of these principles within higher education—specifically in collaborative learning environments—remains



Student DT Workshop

underexplored. Although the literature offers a solid theoretical foundation for intrinsic motivation and agency (Burton et al., 2006; Castle, 2014; Zimmerman, 2000), there is limited research on how design thinking methodologies and co-creation influence these concepts in a higher education context. Participatory practices such as digital storytelling, scenario-based simulations, and alternative world envisioning present opportunities for deeper exploration of their effects on student motivation and engagement.

Co-creation, a process in which students collaborate in the creation of learning materials or solutions, plays a significant role in fostering a sense of ownership and responsibility (Prahalad & Ramaswamy, 2004). Collaboration, a key aspect of co-creation, is essential for achieving shared goals, as it brings together diverse perspectives and expertise (Laal, 2013). The work of Liedtka (2015) on design thinking offers valuable insights for this study by highlighting the importance of a structured, human-centered approach to problem-solving and innovation. Liedtka promotes design thinking as a universal tool for creatively addressing complex challenges, advocating for its use in interdisciplinary teamwork, experimentation, and iterative learning from failure. By integrating Liedtka's principles into this study, the focus shifts to how design thinking and co-design practices can enhance student engagement and encourage the development of creative problem-solving capabilities. The goal is to create student-centered learning experiences that contribute to holistic student development, emphasizing both cognitive and emotional growth.

Positive psychology, as advanced by Seligman (2011), underscores the importance of fostering well-being and interpersonal connections in educational settings. This framework is increasingly recognized in undergraduate education, particularly in social-emotional learning (SEL). SEL equips students with essential skills such as

emotional recognition, empathy development, relationship building, and responsible decision-making (Flippo, 2016). These competencies align closely with the principles of human-centered design, which focuses on understanding individual needs and experiences to create tailored solutions (Dam & Siang, 2024). Human-centered design has been shown to boost creativity and problem-solving abilities, making it a valuable tool for enhancing student engagement and intrinsic motivation (Atchley et al., 2012).

Although human-centered design principles are not exclusive to scenario-based simulations, they resonate strongly with the immersive nature of these learning environments. Scenario-based learning promotes self-awareness, social awareness, and responsible decision-making—key elements of SEL—by engaging students in real-world challenges that require empathy and collaboration. Rowell (2021) suggests that scenario-based learning, when integrated with SEL, creates a synergistic relationship that fosters deeper emotional and cognitive engagement. Panke (2019) further explores how design thinking methods can enhance SEL by encouraging playful learning, promoting "flow," fostering collaboration and nurturing creative confidence. While Panke's work primarily focuses on case studies, this study aims to extend these principles into more immersive, co-creative experiences such as participatory digital storytelling and alternative world envisioning.

Creative Outputs and Immersive Experiences

Current scholarship highlights the effectiveness of diverse techniques in creative outputs and immersive experiences for engaging students and promoting deep learning. Angne Alfaro (2022) demonstrates the significant impact of design cases in immersive learning programs at a Midwest University, enhancing student engagement and educational outcomes. Similarly, digital storytelling is recognized as a potent tool for presenting complex ideas and eliciting emotional responses through multimedia narratives (Pieterse & Quilling, 2011). Arts-based approaches, as discussed by Robin (2008) and Bolton (2010), provide varied expressive outlets that encourage critical reflection, collaboration, and creativity (Alexander, 2011; Lambert, 2002). Extensive research by Smeda et al. (2014), and Jenkins (2006) underscores the transformative potential of digital storytelling in higher education. This pedagogical strategy integrates video, audio, text, and interactive elements to craft immersive narratives across various platforms, enabling the exploration 16 of stories from multiple perspectives. Immersive workshops, such as those highlighted by Baker (2016), create dynamic learning environments that foster creativity and collaboration through innovative scenarios. These methods have proven effective in enhancing student engagement and deepening understanding of complex issues, including wicked problems (Sawyer, 2012).

Despite these insights, there are gaps in our understanding of the optimal integration of creative outputs and immersive experiences in educational settings, and often the studies are focused on one method, i.e., digital storytelling, instead of combining strategies. Bhargava and Sharma (2023) emphasize the role of collaborative learning experiences, such as scenario-based simulations, in enhancing student engagement. Additionally, speculative fiction and future worldbuilding projects provide a platform for students to imagine and create future scenarios where today's challenges are resolved (Sterling, 2013). Virtual Reality (VR) technologies offer immersive experiences that allow users to explore speculative historical scenarios or alternative historical trajectories (Frentzel-Beyme & Krämer, 2025) These speculative approaches not only foster imaginative thinking but also provoke discussions on ethical, social, and technological issues. The research findings from Flint et al. (2021) and Sterling (2021) highlight the educational benefits of using speculative fiction narratives in teaching. Flint et al. (2021) focused on feminist pedagogy and methodology, demonstrating how speculative fiction can be a powerful tool for examining and shaping future narratives and fostering critical inquiry. This approach allows

students to challenge existing societal norms and envision alternative futures, thereby enhancing their critical thinking and problem-solving skills. Sterling (2021) further explored the use of future world-building exercises in education, emphasizing their potential to help students develop solutions to 17 complex, socalled "wicked" problems.

These exercises encourage students to think creatively and collaboratively about future scenarios, promoting a deeper understanding of the potential impacts of current actions on future societies. Despite these positive findings, how design thinking and the co-creation of resources specifically influence agency, intrinsic motivation, and interpersonal connection among students has not been studied extensively. As noted above, Sterling measured creativity and collaboration, while Flint examined critical inquiry. Design thinking, as a structured, human-centered approach to problem-solving, could potentially enhance the benefits observed with speculative fiction narratives by providing a more systematic methodology for creativity and innovation. This approach emphasizes empathy, iterative learning, and collaboration, crucial for fostering intrinsic motivation and strengthening interpersonal connections. Co-creation, involving students actively in the creation of learning materials or solutions, could further enhance these outcomes. When students are co-creators, they are likely to feel a greater sense of ownership and responsibility toward their work, which can increase intrinsic motivation (Lysne et al., 2023). Moreover, the collaborative nature of co-creation can improve interpersonal connections among students, as they share ideas, negotiate different perspectives, and work towards a common goal (Bovill, 2019).

Therefore, more research is needed to explore how integrating design thinking principles and co-creation strategies into creative project outputs in education can impact intrinsic motivation and interpersonal connection. In synthesizing the literature, it becomes evident that while many studies have explored the integration of design thinking principles and learning opportunities to co-create engaging learning experiences (Bustard et al., 2022; Devassy et al., 2023), there remains a lack of comprehensive research examining the outcomes associated with specific types of creative outputs, such as participatory digital storytelling, scenario-based simulations, and alternative world envisioning.

This identified gap underscores the need for research that delves into the combined effects of these innovative approaches on student agency, intrinsic motivation, and interpersonal connection within higher education contexts. To address this gap, I will explore the collective impact of design thinking methodologies and co-designing creative outputs on agency, intrinsic motivation and interpersonal connect. By integrating Liedtka's (2015) insights, which provide a comprehensive overview of design thinking, emphasizing its human-centered approach and iterative process, which are crucial for fostering creativity and problem-solving skills into design thinking, I hope to provide a structured, human- centered approach to problem-solving and innovation, fostering students' creative potential and problemsolving skills. Additionally, the incorporation of co-creation strategies aims to enhance students' sense of ownership and responsibility towards their learning, thereby increasing their intrinsic motivation and strengthening interpersonal connections.







Storyboard

PROJECT PLAN

Graduate-level scholarly research in an MFA (Master of Fine Arts) program can take many forms, from the conventional five-chapter thesis to more innovative and creative explorations of findings. In this project, I adopted a creative approach, utilizing ethnographic techniques to investigate student experiences as they developed creative project outputs aided by design thinking methods. This project adopts a novel approach that integrates ethnographic techniques with creative practice-based research, focusing on the investigation of student experiences as they engage in the development of creative project outputs facilitated by design thinking methodologies. The research design is intentionally structured to mirror the creative processes employed by the students in their projects, specifically utilizing digital storytelling as both a subject of study and a method of inquiry. This reflexive approach serves a dual purpose: it allows for a deep, immersive exploration of the students' experiences while simultaneously providing a meta-analytical framework for examining the efficacy of digital storytelling as a pedagogical tool. By employing ethnographic techniques, I aim to capture the nuanced, lived experiences of students as they navigate the intersection of design thinking and creative output. The use of digital storytelling as a research method not only aligns with the subject matter under investigation but also offers a unique opportunity to explore its potential for enhancing student engagement and learning outcomes. This methodological approach represents a significant departure from conventional research paradigms, positioning the study at the forefront of practice-based research in the creative arts. By interweaving the roles of researcher and practitioner through this project, I seek to generate insights that are both academically rigorous and creatively innovative, contributing to the evolving discourse on arts-based research methodologies in higher education.

The students I interviewed were all either currently working on creative project outputs utilizing design thinking methods or had recently completed this kind of project, which allowed time for interviewing and data collection (see Figure 1).

A summary of the research design, methods of data collection and analysis, and creative project overview follows.

Research Design

In this creative project, I used a qualitative phenomenological framework to capture the essence of students' experiences working on creative outputs. This approach is suitable for exploring the depth of firsthand experiences and the meanings students attach to their interactions and creative outputs and to the process itself. The students I interviewed had already completed their creative projects incorporating one of the three methods I am exploring: immersive scenario-based workshops, digital storytelling, and future envisioning projects. They had all developed these projects utilizing a variety of design thinking methods. Through this project, I hope to reveal nuanced impacts on students' agency, intrinsic motivation, and interpersonal connections. To support the project goals I also interviewed graduate mentors and community partners who worked with the students and helped co-create the concepts for their creative outputs.

This project plan outlines my strategy of increasing choice and the opportunity to co-create what the outputs of a project will be, to hopefully provide an example for higher education in the post-COVID era, and emphasizes the need for courses and spaces where students can connect to their interests and the world around them in a more generative way. By leveraging immersive scenario-based projects, digital storytelling, and future-imagining creative media projects, I seek to encourage avenues for exploration that are more connected, collaborative, and empowering and to see if these impact the students' agency, intrinsic motivation, and interpersonal connection. My goal is to explore if students, when released from the more constraining aspects of traditional education, can tap into their creative potential through added choice and co-creative design thinking approaches and to see if, as educators, we can better equip them with the skills, passion, and engagement to help them shape their learning. By examining the efficacy of design thinking and co-creation in fostering a sense of agency, motivation, and connection among students, I hope to offer insights into how educators can adapt to the changing educational landscape and meet the needs of this new generation of learners.





A purposeful sampling technique was used to capture the essence of students' lived experiences. Participants included students and community partners engaged in creative projects such as digital media storytelling, scenario-based simulations, and future envisioning. The sample was drawn from cohorts at Cornell University and Radford University, ensuring that participants had meaningful involvement in design thinking projects. By including undergraduate students, graduate mentors, and community partners, this sampling strategy facilitated exploration of the interplay between roles in co-creation, highlighting how agency, motivation, and interpersonal connections were experienced differently across groups.

The undergraduate student subjects (see Participant Grid figure 2) for this project are from various disciplines in either their first, second or third year of university; all have been actively engaged in co-curricular projects. These projects involved actively engaging in activities involving co-creating, the creative deliverables for the projects, which included, digital storytelling, alternative-world scenario-based workshops, and future envisioning creative outputs.



Photoshopped image of "Streetology" Project

In addition to the student participants, I interviewed a sample of the graduate mentors and community partners who worked on these creative projects with the students and helped co-create their creative project concepts. I recruited 20 volunteer undergraduate students, graduate students and community partners ensuring a broad representation. I ultimately completed 19 interviews. Participants were recruited from groups of students, I have worked with doing community-engaged projects from two cohort groups at Cornell University, where I have been employed as a program manager, advisor, and instructor, and one group from Radford University in the "Wicked Society," a student club focused on solving complex and intractable global and social issues using design thinking methods. I recruited several students from each cohort group and the balance of participants were graduate students and community partners who worked with these students.

Population	Type of Project	Output	Number 5	
Cornell Undergraduate in Leadership Program Cohort Program	Both experiential and collaborative community-engaged projects	Digital storytelling, and other creative media outputs		
Cornell Undergraduates in Technology \$ Humanities Cohort Program	Both experiential and collaborative community engaged projects	Digital storytelling, and other creative media outputs	5	
Radford University Creative Problem Solving Cohort ("Wicked Society")	Immersive community engaged project	Immersive Virtual World Workshop	3	
Cornell Graduate Mentors	Advising for both experiential and collaborative community engaged projects	Digital storytelling, and other creative media outputs	3	
Radford Graduate Advising for immersive community engaged project		Immersive Virtual World Workshop	1	
Community Partners	Working with Cornell Undergraduates	Digital storytelling, and other creative media outputs	2	



Recruitment and scheduling

The recruitment process for this study was conducted through group email invitations (see Appendix A for all IRB approval documents in the study) sent to potential participants who had previously engaged in cocurricular and extracurricular activities involving digital storytelling, scenario-based simulations, and alternative world envisioning. The email invitation outlined the purpose of the study, the two-part nature of the research (individual interview and optional group workshop), and the value of their participation. Participants were invited to schedule a 30–45-minute individual video interview (see Appendix B) via Zoom or in person, based on their preference. To facilitate scheduling, potential participants were asked to reply with their availability for a specific week, after which they received a calendar invite with the confirmed date, time, and location or Zoom link. At the conclusion of the individual interviews, participants were offered the opportunity to join an optional group workshop. This workshop, employing the LUMA methods of Rose, Thorn, Bud, Affinity Clustering (see Appendix C), Visualize the Vote, Appearance Modelling and Build Your Own, was scheduled for 45 minutes and was done with one group in-person and one group virtually via Zoom. Participants who expressed interest in participating in the workshop were provided with a list of available dates and times to choose from, ensuring flexibility and maximizing participation.

Throughout the recruitment and scheduling process, the voluntary nature of participation was emphasized, as outlined in the Informed Consent Form. Participants were informed of their right to withdraw from the study at any time without penalty. The consent form also detailed the procedures involved, including the recording of interviews and workshops, and the options for how their likeness and contributions may be used in the final creative video project. This comprehensive approach to recruitment and scheduling was to ensure informed participation and accommodate the preferences and availability of potential participants.



Data Collection Methods

Part One :

Data was gathered through a two-part study, with the first component focused on employing ethnographic methods. Open-ended, semi-structured interviews were conducted to capture students' personal experiences and perspectives related to the co-creation process. The interviews were conducted via Zoom and in person over two weeks. Using both in-person and online tools allowed participants to choose which modality worked best for them.

Interviewing, as a qualitative research method, allowed me to guide the conversation and probe deeper with specific, guided questions (see Appendix B). This technique enabled students to reflect freely on their involvement, giving a comprehensive understanding of their cultural and social practices within the co-creation framework. The interviews were recorded and transcribed on Zoom.

Using the interviews, I used the Affinity Clustering method to organize and define general themes and a list of keywords words gathered through an analysis of the interview transcripts. This provided the material I used as a jumping-off place for the workshops.

Part Two:

I then held two workshops (see Appendix C). Participants who completed interviews were invited to participate in a workshop, and 8 participants joined, 3 in the first workshop and 5 in the second. In these workshops, participants engaged in various collaborative exercises, including Rose, Bud, Thorn; Affinity Clustering; Visualize the Vote; Appearance Modeling; and a Build-Your-Own activity (see Figure 3 for an illustration of data collection methods).

The workshops were conducted using collaborative online tools, including Zoom, Mural, and Email, to gather the groups' feedback. This virtual setup enabled participants from diverse locations to contribute equally, ensuring that geographical distance did not hinder the collaborative process.

I began the conversation with the Rose, Bud, Thorn technique, a reflective exercise where students identified positive experiences (Rose), challenges (Thorn), and potential opportunities for improvement (Bud) about their co-creation experience.

Next, participants used Affinity Clustering to organize the themes and keywords that emerged from their reflections into categories. The affinity clustering process, allowed for member checking, enhancing the study's credibility by incorporating the participants' direct input in identifying thematic trends. This also validated the themes I had developed through participant involvement (see Appendix D).

During the workshops, participants also engaged in Visualize the Vote, where teams collaborated to decide which themes should take priority, adding a layer of participatory decision-making to the process. A brief Appearance Modeling exercise allowed students to propose specific visual elements (e.g., colors) to represent different themes in the video scenario outputs.

Finally, the workshops concluded with a Build-Your-Own activity, where participants collaboratively crafted prompts for me to use to generate an AI video clip that reflected one of the identified themes. This hands-on creative exercise helped tie the data analysis process to the eventual production of the project's visual content. Together, these methods provided a multi-dimensional analysis that combined reflective exercises with creative decision-making, ensuring that the final outputs were deeply informed by student insights.

Data Analysis Methods

Following the completion of individual interviews and group workshops (see figure 4), I conducted a thorough thematic analysis (see Appendix D) of all collected data -- my observations, the interviews, the developed themes and keywords, the color choices, and the prompt for the AI-generated video -- and used that document and the pre-production Storyboard (see Appendix E) to create a post-production Storyboard (see Appendix F) that I used to structure and inform the final Video Scenario.

I revised the Affinity Clustering document I completed before the workshops, to include data gathered from the workshops to validate the words, concepts, and themes that emerged and tied them back to my research questions.



Storyboard Development and Video Scenario Production

The storyboard served as a visual representation of the video sequence, breaking down the action into individual panels. Each panel included sketches, drawings, or reference images that represented different phases of the video. These visualizations were accompanied by descriptions of additional footage, voiceover, and technical details, helping to shape the narrative, as well as the overall look and feel of the final piece. To ensure a thorough and organized process, I created two distinct storyboards: one to inform pre-production and the other to help plan and organize the video scenario postproduction phase.



Photoshopped image of SEL Workshop

Pre-Production Storyboard:

- Conceptualization: Based on early interviews and initial data analysis, I developed a storyboard that helped visualize and plan what footage would be needed, how it might be captured, and when and where filming would take place. This storyboard outlined key moments and thematic elements, guiding the filming process and ensuring that relevant content was gathered effectively.
- Visual Representation: Each panel contained sketches or reference images that depicted critical aspects of the participants' experiences, giving a clear picture of how the scenes would unfold.
- Technical Planning: The storyboard included detailed notes on camera angles, sound, lighting, and other technical considerations, ensuring that the video would be visually coherent and aligned with the narrative goals.

Post-Production Storyboard:

- Guiding the Editing Process: After data collection and analysis were complete, a second storyboard was created to guide the editing phase. This storyboard built upon the themes identified through thematic analysis and organized the footage into a coherent narrative structure.
- Narrative Structure: The storyboard outlined how each scene should flow to accurately reflect the participants' experiences and the project's overall goals. Clips and assets were selected based on keywords and phrases identified in the transcripts and captured in the Storyboard, ensuring that the participants' journeys were captured in their own words and reflected the concepts they had discussed.

Finally, I produced a Video Scenario, in the form of a finished multi-media digital story, to synthesize and present my findings creatively and engagingly and highlight the integration of qualitative data including video interviews, concepts illuminated from group workshop sessions, and creative elements such as sketches, photos, and references to the students' creative outputs to help explore and illustrate the students' experiences. This video scenario was created using Luma Design Thinking Methods and used as a creative art, visual essay as a final deliverable for my thesis MFA (Master of Fine Arts) project, and as an artifact to explore if students experience more



Laidlaw Student SEL Workshop

agency, intrinsic motivation, and connection using this co-created, design thinking-inspired creative outputs as their deliverables. The digital media project will be displayed and shared through various channels, including online platforms, and social media and perhaps, at academic conferences and used to raise awareness about the importance of creative, co-created projects in education, and to inspire educators and students to adopt this approach into their work and can be used as a tool for educators to reflect on their practices and the impact of co-created, design thinking-inspired creative outputs on student learning and motivation.

Conclusion

In response to the challenges outlined, contemporary higher education has tried focusing on studentcentered pedagogies and innovative curriculum designs aimed at fostering holistic student development. One promising strategy within this landscape is the integration of design thinking principles and codesign approaches into co-curricular projects (Panke, 2019). These pedagogical methods aim to empower students as active participants in their learning journey (Ghani et al., 2021). With this project, I aim to contribute to the existing literature by providing a phenomenological examination of the relationship, design thinking methodologies and co- creating creative outputs, may have on student agency, intrinsic motivation, and interpersonal connection. By focusing on and depicting the students' perspectives and lived experiences, I hope to offer insights into the effectiveness of design thinking pedagogical strategies in enhancing student engagement and learning outcomes in an engaging and creative way. The findings could inform educators and curriculum developers about the potential benefits and challenges of integrating design thinking and co-creation in higher education settings and be a supplement to literature in this area. The creative synthesis of findings through the video scenarios will not only enhance the accessibility and engagement for the academic community but also push the boundaries of traditional academic presentations. The phenomenological approach, combined with creative data presentation methods, positions this study to make a significant contribution to educational pedagogy.



Alternative Worlds Storyboard

In reflecting on this MFA journey, it's clear that the work has been profoundly shaped by the urgent mental health challenges facing students and young people, particularly in the aftermath of the COVID-19 pandemic. As Abrams (2022) emphasizes, student mental health is in crisis, necessitating a fundamental rethinking of how higher education institutions approach student well-being. This project responds to this call for change by integrating human-centered design and transformative pedagogies aimed at both promoting emotional resilience and fostering engagement in learning environments. The core of this creative practice is rooted in the belief that co-creation and active learning are essential for deeper student involvement, as articulated by Astin (1984) and reinforced by recent studies (Bhargava & Sharma, 2023). This work creates spaces for collaborative problem-solving, where students become active participants in their educational journey rather than passive recipients of knowledge. By involving students in design thinking methodologies and immersive learning environments, the aim is to enhance their creative capacities, foster ownership over their learning, and build psychological well-being.

Creativity, as explored by Amabile (1988) and Csikszentmihalyi (1990), plays a pivotal role in this work. Drawing on their theories, creativity is approached not as an isolated individual process but as something cultivated through engagement with the broader environment and community. The learning experiences created simulate "real-world" challenges, particularly through the use of speculative and scenario-based pedagogy. Immersive simulations like "Model UN with Zombies" allow students to explore complex social and environmental issues, encouraging critical and creative thinking about "wicked problems," while promoting systems thinking and interdisciplinary collaboration (Atchley et al., 2012). Self-determination theory (Ryan & Deci, 2000) has significantly shaped the approach to fostering student motivation. Learning environments are designed to nurture intrinsic motivation by offering students autonomy, competence, and relatedness. This work draws on Bandura's (1997) theory of self-efficacy to design experiences that empower students to believe in their capabilities and develop a strong sense of agency. Design thinking, as outlined by Dam (2024) and Panke (2019), serves as a framework for exploring the intersection of creativity, problemsolving, and learning. This practice applies design thinking to foster innovation within educational settings, encouraging students to engage in iterative, hands-on processes that allow them to explore diverse perspectives and find novel solutions to challenges. The artistic process behind the video work reflects these pedagogical principles, integrating various forms of media alongside intentional color choices that shape the visual and thematic flow. I employed layered storytelling techniques, blending interview footage with generated content, assets, and imagery to create a dynamic narrative. Research into the reflexive documentary style of filmmakers like Ross McElwee and Bill Brown has significantly influenced the approach, emphasizing the maker's presence and bringing a more personal, introspective tone to the work. This has guided the creation of my video scenario that intertwines personal narratives with broader social and emotional concepts.

The exploration of AI generative video and art has expanded the creative toolkit, pushing creative boundaries and enhancing the visual landscape and narrative flow. This fusion of human insight and machine creativity reflects my broader interest in the intersections of art, innovation, and pedagogy. I hope the final product is a multi-layered, immersive experience that reflects the ongoing mental health crisis in higher education, offering insights into, one creative pathway toward fostering resilience, empowerment, and holistic student engagement. Through this work, I aim to contribute to the evolving landscape of higher education, providing new tools and perspectives for addressing the complex challenges facing today's students.

In creating this video scenario, the participant-prescribed themes, color palette, and focal points became a defining framework that transformed my approach to visual storytelling. These external guidelines pushed my aesthetic choices far beyond where I might have gone instinctively, amplifying the expressiveness, emotional weight, and exuberance of the piece. Left to my artistic preferences, I would have favored a more restrained, subtle approach. This tension between my initial instincts and the imposed directions made the process both challenging and enlightening. At times, the outcome felt almost too overt—emotionally heightened to the point of being on the verge of cliché. However, what emerged was a piece that, while occasionally uncomfortable for me, faithfully embodies the collective vision of the group whose voices and ideas shaped the project. The result transcends my perspective, fulfilling the intention to represent a collaborative synthesis of thoughts, emotions, and creative input.

The scope of the project also forced me to confront the limits of time and narrative conciseness. Initially, I underestimated the volume of content that would be generated—both in terms of interviews and visual material. Faced with the necessity of keeping the final film within a reasonable runtime of approximately 30 minutes, I had to make difficult decisions about what to include. Many clips, visuals, and even entire interview segments, though relevant, had to be excluded to preserve the narrative arc and emotional clarity of the piece. In the end, I stripped the film down to its essential elements, ensuring the story remained comprehensible without excess. While not every participant is represented directly, their voices resonate throughout in aggregate, making the film a distillation of the project's larger collaborative effort. This balance between comprehensiveness and artistic economy became the guiding principle for the final composition.

Abrams, Z. (2022, October). Student mental health is in crisis. Campuses are rethinking their approach. *American Psychological Association Monitor on Psychology*. Retrieved from <u>https://www.apa.org/</u> <u>monitor/2022/10/student-mental-health-crisis</u>

Abrams, R. (2022). The impact of COVID-19 on mental health in young people. *Journal of Adolescent Health*, 66(3), 347-349. <u>https://doi.org/10.1016/j.jadohealth.2022.01.014</u>

Active Minds. (2020). Student mental health: The numbers behind the impact of COVID-19 https://www.activeminds.org/wp-content/uploads/2020/04/Student-Survey-Infographic.pdf

Alexander, B. (2011). The new digital storytelling: Creating narratives with new media. Praeger. Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior, 10*, 123-167.

<u>Amabile, T. M., & Prat</u>t, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior, 36*, 157-183. <u>https://doi.org/10.1016/j.riob.2016.10.001</u>

Angne Alfaro, S. M. (2022). Linking experiential learning and real life: A design case featuring immersive learning. Journal of Learning Spaces, 11(1), 131-140. https://files.eric.ed.gov/fulltext/EJ1359058.pdf

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 25(4), 297–308.

Atchley, R. A., Strayer, D. L., & Atchley, P. (2012). Creativity in the wild: Improving creative reasoning through immersion in natural settings. *PLoS ONE*, 7(12), e51474. <u>https://doi.org/ 10.1371/journal.pone.0051474</u>

Baker, M. (2016). Flexible, dynamic learning environment featured by Natural Pod. Kenora Catholic District School Board. https://www.kcdsb.on.ca/news/media_releases/2016 flexible_dynamic_learning_environment_featured

Bandura, A. (1997). Self-efficacy: The exercise of control. W H Freeman/Times Books/Henry Holt & Co.

Bandura, A. (2012). Social cognitive theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 349–373). Sage Publications Ltd. <u>https://doi.org/10.4135/9781446249215.n18</u>

Bell, L. A. (2019). *Storytelling for social justice: Connecting narrative and the arts in antiracist teaching.* Routledge.

Bhargava, S., & Sharma, R. (2023). Student engagement through teamwork skills: The mediating role of psychological well-being. *Higher Education, Skills, and Work-Based Learning*. <u>https://doi.org/10.1108/</u><u>HESWBL-06-2022-0126</u>

Bolton, G. (2010). Reflective practice: Writing and professional development (3rd ed.). SAGE Publications.

Bovill, C. (2019). Co-creation in learning and teaching: The case for a whole-class approach in higher education. *Higher Education*, *79*(6), 1023–1037. <u>https://doi.org/10.1007/s10734-019-00453-w</u>

Bringle, R. G., & Hatcher, J. A. (2011). International service learning. In R. G. Bringle, J. A. Hatcher, & S. G. Jones (Eds.), International service learning: Conceptual frameworks and research (pp. 3-28). Stylus Publishing.

Burton, K. D., Lydon, J. E., D'Alessandro, D. U., & Koestner, R. (2006). The differential effects of intrinsic and identified motivation on well-being and performance: Prospective, experimental, and implicit approaches to self-determination theory. *Journal of Personality and Social Psychology*, *91*(4), 750–762. <u>https://doi.org/10.1037/0022-3514.91.4.750</u>

Bustard, J. R., Hsu, D. H., & Fergie, R. (2022). Design thinking innovation within the quadruple helix approach: A proposed framework to enhance student engagement through active learning in digital marketing pedagogy. Journal of the Knowledge Economy, 14(3), 2463–2478. https://doi.org/10.1007/ s13132-022-00984-1

Castle, T. D. (2014). The impact of cooperative learning on the development of need for cognition among firstyear college students [Doctoral dissertation, University of Iowa]. Iowa Research Online. <u>http://ir.uiowa.edu/</u> <u>etd/1437</u>

Cherry, K. (2022, November 8). How does self-determination theory explain motivation? Verywell Mind. https://www.verywellmind.com/what-is-self-determination-theory-2795387

Csikszentmihalyi, M. (1990). Society, culture, and person: A systems view of creativity. In M. Csikszentmihalyi (Ed.), Creativity: Flow and the psychology of discovery and invention (pp. 325-344). Harper & Row

Dabrowski, J., & Reed Marshall, T. (2018). Motivation and engagement in student assignments: The role of choice and relevancy. Education Trust. https://edtrust.org/resource/motivation-and-engagement-in-student-assignments/

Dam, R. F. (2024, March 15). The 5 stages in the design thinking process. *The Interaction Design Foundation*. <u>https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process</u>

Dam, R. F., & Siang, T. Y. (2024). 5 Stages in the Design Thinking Process. Interaction Design Foundation. https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process

Devassy, S. M., Scaria, L., Metzger, J., Thampi, K., Jose, J., & Joseph, B. (2023). Development of immersive learning framework (ILF) in achieving the goals of higher education: Measuring the impact using a pre-post design. *Scientific Reports, 13*(1). <u>https://doi.org/10.1038/s41598-023-45035-0</u>

Dunne, A., & Raby, F. (2013). Speculative everything: Design, fiction, and social dreaming. MIT Press. https://doi.org/10.1093/jdh/epv001

Errington, E. P. (Ed.). (2010). Preparing graduates for the professions using scenario-based learning. Post Pressed.

Ewing, L. A. (2021). Rethinking higher education post COVID-19. In J. Lee & S. H. Han (Eds.), *The future of service post-COVID-19 pandemic, Volume 1: The ICT and evolution of work* (pp. 47–60). Springer. https://doi.org/10.1007/978-981-33-4126-5_3

Flippo, T. (2016). Social and emotional learning in action: Experiential activities to positively impact school climate. Rowman & Littlefield.

Flint, M.A., Melchior, S., Guyotte, K. W., & Shelton, S.A. (2021). Spinning futures: Interrogating feminist pedagogy and methodology with speculative fiction. *Cultural Studies Critical Methodologies, 22*(2), 122–131. https://doi.org/10.1177/15327086211052666

Gardiner, P. (2020). Learning to think together: Creativity, interdisciplinary collaboration, and epistemic control. *Thinking Skills and Creativity, 38*, 100749. <u>https://doi.org/10.1016/</u>j.tsc.2020.100749

Ghani, A. S. A., Rahim, A. F. A., Yusoff, M. S. B., & Hadie, S. N. H. (2021). Effective learning behavior in problembased learning: A scoping review. *Medical Science Educator*, *31*(3), 1199–1211. <u>https://</u> <u>doi.org/10.1007/s40670-021-01292-0</u>

Goffman, E. (1959). The presentation of self in everyday life. Doubleday.

Hammersley, M., & Atkinson, P. (2007). Ethnography: Principles in practice (3rd ed.). Routledge.

Jenkins, H. (2006). Convergence culture: Where old and new media collide. New York University Press.

Kolb, D. A. (2014). Experiential learning: Experience as the source of learning and development (2nd ed.). FT Press.

Kolb, A. Y., & Kolb, D. A. (2009). Experiential learning theory: A dynamic, holistic approach to management learning, education, and development. In S. J. Armstrong & C. V. Fukami (Eds.), The SAGE handbook of management learning, education, and development (pp. 42–68). Sage. <u>https:/</u><u>doi.org/10.4135/9780857021038.n3</u>

Korn, A. (2020). The crisis of confidence in higher education. The Chronicle of Higher Education.

Laal, M. (2013). Positive interdependence in collaborative learning. Procedia - Social and Behavioral Sciences, 93, 1433–1437. <u>https://doi.org/10.1016/j.sbspro.2013.10.058</u>

Lambert, J. (2002). Digital storytelling: Capturing lives, creating community. Digital Diner.Lambert, J. (2007). Digital storytelling cookbook. Retrieved from <u>https://wrd.as.uky.edu/sites/default/files/</u> <u>cookbook.pdf</u>

Landry, B. M., & Guzdial, M. (2006). Learning from human support: Informing the design of personal digital story-authoring tools. Journal of the International Digital Media and Arts Association, 3(1), 106.

Leontopoulou, S., Tsitsas, G., & Christodoulou, N. G. (2023). Resilience and mental health in emerging adult university students: The moderating role of COVID-19 impacts. BMC Psychology, 11(1), 305. <u>https://doi.org/10.1186/s40359-023-01321-0</u>

Liedtka, J. (2014). Perspective: Linking design thinking with innovation outcomes through cognitive bias reduction. Journal of Product Innovation Management, 32(6), 925–938. <u>https://doi.org/10.1111/jpim.12163</u>

LUMA Institute. (2012). Innovating for people: Handbook of human-centered design methods. LUMA Institute, LLC.

Lysne, D. A., De Caro-Barek, V., Støckert, R., Røren, A., Solbjørg, M., & Nykvist, B. (2023). Students' motivation and ownership in a cross-campus and online setting. Frontiers in Education, 8, Article 1062767. https://doi.org/10.3389/feduc.2023.1062767

Majnoonian, S., et al. (2023). The impact of COVID-19 on the mental health of young people. Journal of Youth and Adolescence, 52(1), 1-12.

Merriam, S. B. (2009). Qualitative research: A guide to design and implementation. John Wiley & Sons.

Mezirow, J. (1997). Transformative learning: Theory to practice. New Directions for Adult and Continuing Education, 74, 5–12. <u>https://doi.org/10.1002/ace.7401</u>

Mok, K. H., Xiong, W., & Bin Aedy Rahman, H. N. (2022). COVID-19 pandemic's disruption on university teaching and learning and competence cultivation: Student evaluation of online learning experiences in Hong Kong. International Journal of Chinese Education, <u>10(1). http://journals.sagepub.com/</u> <u>doi/10.1177/22125868211007011</u>

National Student Clearinghouse Research Center. (2020). Student enrollment trends. <u>https://</u> www.studentclearinghouse.org/nscblog/research-centers-2020-reports-reveal-college-enrollment-trends/

Palmer, P. J. (2000). Let your life speak: Listening for the voice of vocation. Jossey-Bass.

Panke, S. (2019). Design thinking in education: Perspectives, opportunities, and challenges. Open Education Studies, 1(1), 281–306. <u>https://doi.org/10.1515/edu-2019-0022</u>

Pieterse, G., & Quilling, R. (2011). The impact of digital story-telling on trait Emotional Intelligence (EI) amongst adolescents in South Africa – a case study. Procedia - Social and Behavioral Sciences, 28, 156-163. <u>https://doi.org/10.1016/j.sbspro.2011.11.031</u>

Piaget, J. (1954). The construction of reality in the child. Basic Books

Pink, D. H. (2011). Drive: The surprising truth about what motivates us (First Riverhead trade paperback edition). Riverhead Books.

Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. Journal of Interactive Marketing, 18, 5–14. <u>https://doi.org/10.1002/dir.20015</u>

Robin, B. (2008). Digital storytelling: A powerful technology tool for the 21st-century classroom. Theory Into Practice, 47(3), 220–228. <u>https://doi.org/10.1080/00405840802153916</u>

Rowell, L. (2021, April 22). 3 SEL practices teachers can use every day. *Edutopia*. <u>https://</u><u>www.edutopia.org/article/3-sel-practices-teachers-can-use-every-day/</u>

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78. <u>https://doi.org/10.1037/0003-066X.551.68</u>

Salmi, J. (2022). The impact of COVID-19 on higher education: A review of emerging evidence. Higher Education, 83(2), 445-468.

Sawyer, R. K. (2012). Explaining creativity: The science of human innovation (2nd ed.). Oxford University Press.

Schanzenbach, D. W., & Turner, S. (2022). Limited supply and lagging enrollment: Production technologies and enrollment changes at community colleges during the pandemic. *National Bureau of Economic Research*. <u>https://doi.org/10.3386/w29639</u>

Scherer Bassani, P. B. (2011). Interpersonal exchanges in discussion forums: A study of learning communities in distance learning settings. Computers & Education, 56(4), 931-938. <u>https://doi.org/10.1016/j.compedu.2010.11.009</u>

Seligman, M. E. P. (2011). Flourish: A visionary new understanding of happiness and well-being. Free Press.

Smeda, N., Dakich, E., & Sharda, N. (2014). The effectiveness of digital storytelling in the classrooms: A comprehensive study. *Smart Learning Environments, 1*(6). <u>https://doi.org/ 10.1186/</u><u>s40561-014-0006-3</u>

Smith, J. A. (2013). *Qualitative psychology: A comprehensive introduction to theory and practice*. Sage Publications.

Staley, D. J. (2019). Alternative universities: Speculative design for innovation in higher education. Johns Hopkins University Press.

Sterling, S. (2021). Educating for the future we want. *Great Transition Initiative*. <u>https://greattransition.org/</u>gti-forum/pedagogy-transition-sterling

Schanzenbach, D. W., & Turner, S. E. (2022). The COVID-19 pandemic and the mental health of young people. *Journal of Adolescent Health*, 70(3), 347–349.

Støckert, R., Røren, K. A., Solbjørg, O. K., & Nykvist, S. S. (2023). Students' motivation and ownership in a cross-campus and online setting. *Frontiers in Education, 8*. <u>https://doi.org/ 10.3389/</u> feduc.2023.1062767

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.

Watkins, M., & Beckem II, J. M. (2012). Bringing life to learning: Immersive experiential learning simulations for online and blended courses. *Online Learning*, *16*(5).

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). Academic Press.

Subject: Invitation to Participate in a research study that will involve Individual Video Interview and optional Group Workshop

Hi [Undergraduate student]

I hope this message finds you well. I am reaching out to invite you to participate in a two-part research study that will involve an individual video interview to gather valuable insights and feedback for an MFA thesis project about co-creation of creative outputs and an optional guided group workshop with 3-4 other participants who have also been interviewed.

Interview Details:

- **Purpose:** To gain deeper understanding and feedback on co-creation of creative outputs for undergraduate experiential projects
- Format: Individual video interview via Zoom or in-person
- **Duration:** 30-45 minutes,
- Date and Time: We will coordinate a time that works best for you

Why Your Participation is Important:

- Your insights and experiences are crucial to the success of my MFA thesis project about cocreation and agency in undergraduate projects.
- Your feedback will help me identify strengths, areas for improvement, and opportunities for innovation for this type of project.
- This is an opportunity to have your voice heard and to contribute to the knowledge about this kind of project.

How to Participate:

- 1. **If you are interested in participating**, contact me (<u>majaanderson25@radford.edu</u>) to receive details about the research study and to discuss informed consent.
- 2. **Schedule Your Interview:** Please <u>use this link</u> to access an online form to indicate when you are available for the week of ______.
- 3. **Prepare for the Interview:** Reflect on your experiences and thoughts related to your creative project. Consider specific examples that you can share during our conversation.
- 4. **Join the Interview:** At the scheduled time, join the video call using the link that will be provided in your confirmation email, or come to the mutually agreed upon location as scheduled.
- 5. Reflect on your experiences with our recent projects
- 6. Be ready to share specific examples of what went well, what could have been better, and any ideas you have for how you might do things in the future.
- 7. Bring your positive energy and openness to share and listen.

Next Steps:

- Once we receive your availability, you will get a confirmation email and calendar invite with the confirmed date and time, along with the Zoom link or location details.
- If you have any questions or need further information, please do not hesitate to contact me at majaanderson25@radford.edu
- At the end of the interview, if you choose to participate in the optional focus group workshop, you will have an opportunity to choose one of the scheduled Zoom meeting times from a list of available times.

I appreciate your willingness to share your time and insights. Your participation will be invaluable in helping me with this project.

Best regards, Maja Anderson <u>manderson25@radford.edu</u> Subject: Invitation to Participate in Research Study on Co-Created Undergraduate Projects

Dear [Community Partner/Faculty Member],

I hope this message finds you well. I'm reaching out to invite you to participate in a two-part research study for my MFA thesis project, focusing on the co-creation of creative outputs in undergraduate experiential projects. Your involvement as a community partner/faculty member who co-created a project with undergraduate students would be invaluable.

Interview Details:

- **Purpose**: To gain a deeper understanding of co-creation processes in undergraduate projects
- Format: Individual video interview via Zoom or in-person
- **Duration**: 30-45 minutes
- Date and Time: To be coordinated at your convenience

Why Your Participation Matters:

- Your unique perspective as a co-creator is crucial to understanding the full scope of these projects
- Your insights will help identify strengths, areas for improvement, and innovation opportunities
- This is a chance to contribute to knowledge about collaborative undergraduate projects

How to Participate:

- 1. If you are interested in participating, contact me (<u>majaanderson25@radford.edu</u>) to receive details about the research study and to discuss informed consent.
- 2. Schedule Your Interview: Please use [this link] to indicate your availability for the week of [date].
- 3. **Prepare**: Reflect on your experiences co-creating with undergraduates. Consider specific examples to share.
- 4. Join the Interview: At the scheduled time, join via the provided link or at the agreed location.
- 5. Share Your Insights: Be ready to discuss what worked well, the challenges faced, and ideas for future collaborations.

Next Steps:

- You'll receive a confirmation email with the date, time, and connection details.
- For questions, please contact me at <u>majaanderson25@radford.edu</u>
- After the interview, you'll have the option to join a group workshop with other participants.

Your expertise and experience are crucial to this research. Thank you for considering this opportunity to contribute to our understanding of co-created undergraduate projects.

Best regards, Maja Anderson <u>manderson25@radford.edu</u> Subject: Invitation to Participate in Research Study on Co-Created Undergraduate Projects

Dear [Graduate Students],

I hope this message finds you well. I'm reaching out to invite you to participate in a two-part research study for my MFA thesis project, focusing on the co-creation of creative outputs in undergraduate experiential projects. Your involvement as a graduate student who co-created a project with undergraduate students would be invaluable.

Interview Details:

- **Purpose**: To gain a deeper understanding of co-creation processes in undergraduate projects
- Format: Individual video interview via Zoom or in-person
- **Duration**: 30-45 minutes
- Date and Time: To be coordinated at your convenience

Why Your Participation Matters:

- Your unique perspective as a co-creator is crucial to understanding the full scope of these projects
- Your insights will help identify strengths, areas for improvement, and innovation opportunities
- This is a chance to contribute to knowledge about collaborative undergraduate projects

How to Participate:

- 1. If you are interested in participating, contact me (<u>majaanderson25@radford.edu</u>) to receive details about the research study and to discuss informed consent.
- 2. Schedule Your Interview: Please use [this link] to indicate your availability for the week of [date].
- 3. **Prepare**: Reflect on your experiences co-creating with undergraduates. Consider specific examples to share.
- 4. Join the Interview: At the scheduled time, join via the provided link or at the agreed location.
- 5. Share Your Insights: Be ready to discuss what worked well, the challenges faced, and ideas for future collaborations.

Next Steps:

- You'll receive a confirmation email with the date, time, and connection details.
- For questions, please contact me at <u>majaanderson25@radford.edu</u>
- After the interview, you'll have the option to join a group workshop with other participants.

Your expertise and experience are crucial to this research. Thank you for considering this opportunity to contribute to our understanding of co-created undergraduate projects.

Best regards,

Maja Anderson manderson25@radford.edu Subject: Invitation to Participate in a research study that will involve Individual Video Interview and optional Group Workshop

Hi _____

I hope this message finds you well. I am reaching out to invite you to participate in a two-part research study that will involve an individual video interview to gather valuable insights and feedback for an MFA thesis project about co-creation of creative outputs and an optional guided group workshop with 3-4 other participants who have also been interviewed.

Interview Details:

- **Purpose:** To gain deeper understanding and feedback on co-creation of creative outputs for undergraduate experiential projects
- Format: Individual video interview via Zoom or in-person
- **Duration:** 30-45 minutes,
- Date and Time: We will coordinate a time that works best for you

Why Your Participation is Important:

- Your insights and experiences are crucial to the success of my MFA thesis project about co-creation and agency in undergraduate projects.
- Your feedback will help me identify strengths, areas for improvement, and opportunities for innovation for this type of project.
- This is an opportunity to have your voice heard and to contribute to the knowledge about this kind of project.

How to Participate:

- 1. **Schedule Your Interview:** Please <u>use this link</u> to access an online form to indicate when you are available for the week of ______.
- 2. **Prepare for the Interview:** Reflect on your experiences and thoughts related to your creative project. Consider specific examples that you can share during our conversation.
- 3. **Join the Interview:** At the scheduled time, join the video call using the link that will be provided in your confirmation email, or come to the mutually agreed upon location as scheduled.
- 4. Reflect on your experiences with our recent projects
- 5. Be ready to share specific examples of what went well, what could have been better, and any ideas you have for how you might do things in the future.
- 6. Bring your positive energy and openness to share and listen.

Next Steps:

- Once we receive your availability, you will get a confirmation email and calendar invite with the confirmed date and time, along with the Zoom link or location details.
- If you have any questions or need further information, please do not hesitate to contact me at majaanderson25@radford.edu

• At the end of the interview, if you choose to participate in the optional focus group workshop, you will have an opportunity to choose one of the scheduled Zoom meeting times from a list of available times.

I appreciate your willingness to share your time and insights. Your participation will be invaluable in helping me with this project. If you would like to sign up for an interview time, please email me at <u>manderson25@radford.edu</u> and I will send you the google form to choose a date and time that works best for your schedule.

Best regards,

Maja Anderson

manderson25@radford.edu

Subject: Thank you for participating in my MFA research project. Optional Group Workshop sign up

Hi ______ I wanted to take a moment to express my sincere gratitude for participating in the first stage of my research study. Your insights and feedback from your interview are invaluable in helping me better understand the co-creation of creative outputs,

As I mentioned, I would like to invite you to participate in a follow-up focus group workshop, which will provide an opportunity to share your experiences and perspectives with a small group of peers who have also been interviewed.

Group Workshop Details: This workshop will employ a few LUMA methods - Rose, Thorn, Bud, Affinity Clustering, Appearance Modelling and if there is time, Build Your Own, to efficiently gather and analyze participant experiences and insights related to their recent creative projects.

- **Purpose:** To gain deeper understanding and feedback on co-creation of creative outputs and gain valuable insights from your peers and contribute to the improvement of a future project
- Format: Zoom Workshop
- Date and Time: You will choose from this list of a few dates [insert dates].
- Duration: 30-45 minutes.
- Location: Zoom.

What are Rose, Thorn, Bud, Affinity Clustering, Appearance Modelling and Build Your Own Workshops?

In this workshop, you will be guided through a few LUMA design thinking methods, Rose, Thorn, Bud, Affinity Clustering and Appearance Modelling.

Rose, Thorn, Bud is a reflective technique that encourages participants to identify positive aspects (roses), challenges (thorns), and opportunities or potential (buds) in each situation or project, promoting balanced feedback and forward-thinking discussions.

Affinity Clustering is a technique for organizing and grouping related ideas or information into categories based on their similarities, helping teams identify patterns and insights from large amounts of data. The Affinity Clustering exercise will help develop themes for the final output of this study by quickly identifying common patterns and highlighting frequently mentioned issues. These themes will be incorporated into the final output of this study to ensure the research accurately represents the participants' perspectives and experiences.

An **Appearance Model** is a prototype that represents the look and feel of a design to help define key elements and determine the overall aesthetics as a group.

Build Your Own is a method that helps people use tools for creativity and communication to equip them to make quick and easy representations on an idea. Why Participate?

- Gain valuable insights from your peers.
- Contribute to the improvement of a future project.

• Help me identify themes to explore in my thesis project to help me capture and represent your experiences more fully from your point of view.

• Help define the aesthetic look of the final creative output. How to Prepare:

- Reflect on your experiences with our recent projects.
- Be ready to share specific examples of what went well, what could have been better, and any ideas you have for how you might do things in the future.
- Bring your positive energy and openness to share and listen.

If you are interested in participating in the focus group, please let me know by [insert date] so I can send you a calendar invite with the available dates and times. I look forward to hearing back from you and potentially working together again.

Thank you again for your participation and I hope to hear from you soon.

Best regards, Maja Anderson manderson25@radford.edu



Title of Study: Empowering Students: Cultivating Agency, Intrinsic Motivation, and Interpersonal Connection via Co-Designed Creative Outputs

Principal Investigator: Meg Konkel, PI, Maja Anderson, Student Researcher

Purpose of the Study: You are invited to participate in a research study aimed at exploring the effects of design thinking methodologies and co-creation processes on undergraduate students' sense of agency, intrinsic motivation, and interpersonal connection. This study involves talking about your experiences having participated in co-curricular and extracurricular activities that include digital storytelling, scenario-based simulations, and alternative world envisioning

Procedures: If you agree to participate in this study, you will be involved in the following:

- A semi-structured interview lasting approximately 30-45 minutes, conducted in person or via video conferencing, which will be recorded with your consent.
- You will also be invited to share your co-created projects from your co-curricular and extracurricular activities for use in a creative video project.

Why Participate?

- Your insights and experiences are crucial to furthering research about co-creation and agency in undergraduate projects.
- Your feedback will help identify strengths, areas for improvement, and opportunities for innovation for this type of project.
- This is an opportunity to have your voice heard and to contribute to the knowledge about this kind of project.

Voluntary Participation: Your participation in this study is entirely voluntary. Participants will be able to identify any component they want to provide consent for and will still be able to participate in the study if they do not provide blanket consent for all components. These components are:

1) Video and audio recorded individual interview

2) Permission to have excerpts of that video and audio recording integrated into the creative film project outcome

3) Sharing your student project artifacts for its potential inclusion in the creative film project outcome

4) To have your name listed in acknowledgments/credits in the final creative video outcome.

Using this form, you will identify any component you agree to provide consent for. You will still be able to participate in the study if you do not provide blanket consent for all components.

Confidentiality: The final outcome of this study will be a creative video project. If you choose to participate, please now that:

- Your personal information will not remain anonymous as part of this study.
- You have the option to decide if only your audio will be used, or if your video likeness will be altered using animation or other video effects.
- All data will be stored securely on the researcher's personal computer, accessible only to authorized members of the research team.
- Any materials not used in the final project will be securely deleted after the final video project is presented.

Risks and Benefits:

- **Risks:** The primary risk associated with this study is the potential for discomfort during interviews or co-creative activities. There is also a risk of privacy loss due to your audio and/or video recordings.
- **Benefits:** While there may be no direct benefits to you, your participation will contribute to research that aims to improve educational practices and student experiences in higher education.

Questions About Your Rights as a Research Participant: If at any time you want to stop being in this study, you may stop being in the study without penalty or loss of benefits by contacting: Meg Konkel at email: mkonkel@radford.edu. If you choose not to participate or decide to withdraw, there will be no impact on your academic standing or relationship with the University.

Contact Information: If you have any questions about this study or your participation, please contact the principal investigator, Meg Konkel at email: <u>mkonkel@radford.edu</u>. This study was approved by the Radford University Committee for the Review of Human Subjects Research. For questions about your rights as a research participant, you may contact Dr. Jeanne Mekolichick, Institutional Official and Associate Provost for Research, Faculty Success, and Strategic Initiatives, <u>jmekolic@radford.edu</u>, 540-831-5114.

Consent: By signing below, you acknowledge that you have read and understand the information provided above, and you agree to participate in this study. You also consent to the

audio and video recording of your interviews and activities, with the understanding that you can request modifications to how your likeness is used.

Participant's Name (Printed):	
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Optional Consent for Use of Identifiable Information:

Check one:

I consent to the use of my name _____

I consent to the use of my voice audio recording in the creative video output _____

I consent to the use of my video recordings in the creative video outputs.

I prefer to have my likeness altered so it is not identifiable _____

I prefer to only have my audio used in the creative video outputs, even if I have consented to being video recorded_____

I prefer only to have my transcribed interview used, even if I have consented to being video/audio recorded _____

I consent to have samples from my co-created project outputs from my co-curricular and extracurricular activities included in the final creative video output.

I prefer to have my co-created project outputs from my co-curricular and extracurricular activities included in the final creative video output only if altered so they are not identifiable _____

Participant's Signature:	
Date:	
Researcher's Signature:	
Date:	

This consent form ensures that participants are fully informed about the study's purpose, procedures, risks, benefits, and their rights, providing a clear and ethical framework for their involvement.

Rose Thorn Bud, Affinity Clustering, Appearance Modeling, and Build Your Own Workshop Outline (approximately 45 minutes)

Objective:

To engage participants in reflecting on their experiences identify positive aspects (Roses), challenges (Thorns), and opportunities for growth or improvement (Buds) related to their involvement in the creative projects, and to identify common themes through affinity clustering. Then collaboratively choosing the "look and feel" as a guide for the final creative output and, if there is time, writing prompts to use for prototyping generated video content using an AI tool.

Materials Needed:

- Computer and internet connection for all participants
- Pre-created Mural Whiteboard Template
- Runway AI generative video tool (time permitting)

Agenda:

- Introduction and Objective (5 minutes)
 - Welcome participants and introduce the purpose of the workshop.
 - Briefly explain the LUMA methods.
 - Outline the session's agenda and expected outcomes.
- Individual Reflection (5 minutes)
 - Using the pre-created Mural Whiteboard template participants will individually jot down their thoughts on the whiteboard in their provided section
 - Ask participants to individually reflect on their experiences in the creative projects.
 - Roses: Positive aspects or successes.
 - **Thorns**: Challenges or difficulties encountered.
 - Buds: Opportunities for growth, improvement, or new ideas.
 - Allow participants 5 minutes to write down their reflections, one idea per virtual sticky note.
- Sharing and Affinity Clustering (10 minutes)
 - Invite participants to place their virtual sticky notes in the provided sections on the whiteboard under the respective categories (Roses, Thorns, Buds).
 - As participants place their virtual sticky notes, encourage brief explanations to provide context.
 - As participants place their virtual sticky notes, encourage them to group similar ideas together to identify common themes for the next step.
 - Affinity Clustering: Combine similar notes into clusters to identify overarching themes or patterns.
- Discussion (5 minutes)

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- Discuss as a group to settle on identified themes.
 - **Roses**: Discuss the positive aspects and how they contributed to the project's success.
 - **Thorns**: Explore the challenges and discuss potential solutions or ways they were overcome.
 - Buds: Brainstorm ideas for future improvements or opportunities for innovation.
 - Encourage participants to share specific stories or examples to enrich the discussion.

• Appearance Modelling (10 minutes)

- Invite participants to use the themes and their discussion to start to develop the "look and feel" for the final video scenario output.
- Using the internet participants will collect and upload in the provided section of the whiteboard ideas for the colors, and visual look and feel.
- o Discuss as a group to settle on the elements they want to move forward.
- Build Your Own (8 minutes)
 - Using the themes, discussion and appearance modelling participants will work collaboratively to craft text prompts to be used to generate video using an AI. If time permits, they may generate some of their concepts using an AI tool, Runway
 - Roses: Discuss the positive aspects and how they contributed to the project's success.
 - Thorns: Explore the challenges and discuss potential solutions or ways they were overcome.
 - Buds: Brainstorm ideas for future improvements or opportunities for innovation.
 - Encourage participants to share specific stories or examples to enrich the discussion.
- Wrap-Up and Feedback (2 minutes)
 - Recap the workshop and gather feedback from participants.

 \circ \quad Thank participants for their active involvement and contributions.

NOTES

• Adjust timing as needed based on group size and engagement levels.

Interview Protocol for Graduate Student participants:

This field guide is designed to start all interviews with the same reference point and allow for exploratory questions that elicit responses to be followed up with additional clarifying questions, enabling participants to share their experiences and insights in their own words:

Introduction and Background:

- 1. Can you describe your role as a graduate student in co-creating projects with undergraduates?
- 2. What motivated you to get involved in these collaborative projects with undergraduate students?

Context and Setting:

- 3. Could you describe the environment where these collaborative projects typically took place?
- 4. What were the primary objectives you aimed to achieve through your involvement in these undergraduate projects?

Co-Creation Process:

- 5. How did you collaborate with undergraduate students in generating ideas or content for these projects?
- 6. Can you share a specific example of a collaborative decision-making process that influenced the direction of a project?

Creative Output Process:

- 7. Walk me through your approach to guiding undergraduates in creating digital stories or participating in scenario-based simulations. What steps did you typically follow?
- 8. How did you help undergraduate students navigate challenges or uncertainties during the creative process?

Agency and Ownership:

9. Can you recall a moment where you encouraged undergraduate autonomy in decisionmaking that impacted the project outcome? How did that affect the project and your role?

Intrinsic Motivation:

- 10. What aspects of co-creating with undergraduate students did you find personally fulfilling or motivating?
- 11. How did this experience align with your own graduate studies or research interests?

Interpersonal Connections:

- 12. How have your relationships with undergraduate students or other collaborators evolved through these projects?
- 13. Could you describe a time when collaboration affected your sense of connection within the project team?

Challenges and Growth:

- 14. What challenges have you encountered while co-creating with undergraduate students, and how have you addressed them?
- 15. In what ways has this collaborative activity contributed to your personal, academic, or professional development?

Impact and Reflections:

- 16. From your perspective as a graduate student, what impact do these co-created projects have on the undergraduates, your research, or the broader academic community?
- 17. How do you assess the success or effectiveness of the collaborative process and its outcomes?

Future Directions:

- 18. Looking ahead, how do you see this experience influencing your future academic or professional pursuits?
- 19. Are there specific changes or improvements you would suggest to enhance the cocreation experience between graduate and undergraduate students?

Closing:

- 20. Is there anything else you would like to share about your experiences co-creating projects with undergraduate students?
- 21. Do you have any final thoughts on how this experience has shaped your perspective on mentorship or collaborative learning?

Project Plan and Thematic Analysis Report:

Co-Creation Video Project

Project Overview:

This video project focuses on co-creation between students, community partners, and mentors, facilitated through Design Thinking projects that incorporated digital storytelling, scenario-based simulations alternative world imaginings as team creative outputs.

The co-creation experience will be framed by the themes identified through the initial interview data collection process as well as the follow-up workshop:

I identify three main categories as my theme: Liminality, Jumping In, and Fun. These themes were explored by synthesizing some of the keywords developed through an analysis of the interviews and affinity diagram: Connection, Collaboration, Curiosity, Honesty, Trust, Patience, and Creativity, among many others.

Process:

The video project involves a structured process to collect, analyze, and produce video content that captures the collaborative experience between students, mentors, and community partners.

Data Collection: The data collection process involved a combination of interviews and design thinking methods to capture and ensure that the themes and keywords that emerged were organically from the participants' experiences. To gain insights into participants' experiences, the following methods were employed:

1. Individual Interviews:

- **Participants**: 20 individual interviews were planned and 19 completed, conducted with students, mentors, and community partners who participated in the co-creation process of one or more of the projects that involved design thinking frameworks and were about co-creating creative outputs. The goal was to capture their personal reflections, thoughts, and emotions as they talked about their experiences.
- **Consent**: Before each interview, participants received the consent form and during the interview, we reviewed the form and they signed it providing their customized consent for both video and audio recording, use of their likeness, and creative outputs ensuring their comfort with the process.
- **Structure**: Each interview focused on how individuals experienced the co-creation process, specifically exploring their perspectives on collaboration, creativity, and teambuilding. They were also asked to describe moments of challenges they faced, and the

emotions they felt while working on this project. I followed the "field guide" I wrote for the IRB and generally only deviated to dig deeper into something specific one of the participants said.

- **Transcription**: All interviews were recorded and transcribed. The transcription process helped to capture the nuances of participants' voices, ensuring critical details, and accuracy of the data.
- **Collation**: After all the interviews were transcribed, a collective list of keywords was created by combining terms that were used consistently across multiple interviews. This list reflected the recurring concepts and emotions shared by participants, helping to highlight central themes that resonated with the group.
- **Keyword Identification**: I used the transcriptions and collated list pulled from the participants' responses and created a list of words that were mentioned by multiple people, such as **Trust, Fun, Collaboration, Curiosity, Hope, Patience, Freedom**, **Agency, Authority** and **Team** among others. I also identified the main theme categories based on these words and the interviews of Limilality, Jumping-in, and Fun, for the participants to use when participating in the next step.
- Luma Design Methods To further refine the emerging themes, participants were asked to give responses to a few LUMA Institute's Design Thinking Methods using the predefined categories of Liminality, Jumping-in and Fun:
 - **Rose, Bud, Thorn**: This method was used to help participants reflect on the positive aspects (Rose), potential opportunities (Bud), and challenges or difficulties (Thorn) they experienced throughout the co-creation process. Insights gathered through this exercise helped identify key emotional and creative moments,
 - Visualize the Vote: In a follow-up email, participants were asked to vote on the key words that resonated most with their experiences. This method helped prioritize which ideas and themes would be the focal points. For example, Connection, Team, Supportive, and Creativity were recognized as critical to the collaboration by a significant number of participants.
 - Affinity Diagramming: After transcribing and coding the interviews, the team used affinity diagramming to cluster related ideas and themes.within the three identified categories, Liminality, Jumping-in and Fun. This method helped visually map out the relationships between the keywords.
 - NOTE: The initial Rose, Bud Thorn, Visualize the Vote and Affinity Diagramming were done via an email to interview participants as no date/time worked for enough participants to do a Zoom workshop. The second Zoom workshop will be completed on 10/10 to help refine the themes within the three main categories, Liminality, Jumping-in, and Fun I defined using the interviews.

Production: Creating and Capturing Content:

Zoom and in-person interviews were done. For the in-person interviews I used an small Osmo camera and my cell phone as well as a Zoom session to capture the interview in order to be able to easily capture a transcript.

I also am collecting creative output content from projects I have permission to include

I am generating footage using AI video generation tools such as Runway

I may use Stornaway (if there is time) an interactive video tool that allows you to create choices of what the viewer wants to see.

2. Final Workshop (Scheduled for Monday, 10/10):

A final workshop will take place to validate the identified themes and refine the structure of the video project. During this session:

- Theme Validation: Participants will review the refined themes of Liminality, Jumping In, and Fun, ensuring that they accurately capture their co-creation experience.
- Video Generation Prompts: Using the validated themes and keywords, participants will create specific prompts to guide the storytelling and visual narrative of the final video. These prompts will serve as creative inputs to capture the essence of the project's co-creation journey.

To further refine and validate the identified themes, a final workshop will be held. This session will serve multiple purposes:

- **Theme Refinement**: Participants will review the themes of **Liminality**, **Jumping In**, **and Fun** and the affinity diagram the has emerged to provide feedback to ensure they reflect their lived experiences during this project. This validation process will help ensure that the final video authentically captures the spirit of co-creation.
- Video Generation Prompts: Using the insights gathered, the participants will also help create specific prompts for video generation. These prompts will guide me in creating some generated video using Runway, Firefly, or other AI video generation applications for elements in the visual storytelling for the final video, ensuring that the visuals also reflect the core emotions, experiences, and themes identified throughout the project.

Identified Themes:

1. Liminality:

Liminality reflects the in-between, transformative space participants occupy as they move from individual contributors, especially at the beginning of their college careers, to collaborators in a creative team. The interviews revealed how participants felt a sense of ambiguity, aprehension, unfamiliarity, which they often found challenging but also allowed for personal and collective growth. The themes of **Patience**, **Trust**, and **Listening** were especially tied to this phase of the project, as participants navigated uncertainty and found new ways of working together.

2. Jumping In:

This theme, consistently mentioned in interviews, speaks to the participants' readiness to embrace the unknown, and acceptance that they might make mistakes, Participants highlighted the importance of overcoming hesitation and fully committing to the cocreation process. The Luma methods, especially Rose, Bud, Thorn, surfaced how moments of curiosity and risk-taking led to creative breakthroughs. **Trust** and **Support** from teammates were crucial in allowing participants to "jump in" without fear of failure.

3. Fun:

Fun was identified as a driving force behind the project's success. Participants emphasized the fun and joy they found in working together, even in challenging moments. The Visualize the Vote activity revealed that **Unity**, **Creativity**, and **Team** were consistently recognized as central to their experiences. Participants felt that fun brought a sense of lightness, which helped them bond and work more effectively as a team. The interviews revealed that fun wasn't just a byproduct of the process but a driving force behind the creative breakthroughs and collaborative bonds that formed throughout the project.

Some of the Keywords and their Significance (from interviews):

- **Connection**: Emerging as a core value, connection underpins the entire co-creation process. Participants frequently noted how forming deep connections with their peers and mentors enhanced trust and allowed for more effective collaboration.
- **Collaboration**: True collaboration was an ongoing theme. Participants described how each person's contributions built on the others, creating a mixture of ideas and solutions.
- **Curiosity**: Interviews revealed that curiosity was the spark for innovation during the project. Participants were eager to explore unfamiliar ideas, which pushed the boundaries of their creativity.
- **Trust and Honesty**: Trust was frequently mentioned as fundamental to the team's dynamics. They said that without trust participants would not have felt comfortable expressing themselves honestly and taking creative risks.
- **Creative**: Creativity was both a process and an outcome of the project. Participants felt that the freedom to be creative—supported by the **Guardrails** (mentioned by both mentors and students) which were provided by the project framework, and the mentors—allowed them to generate innovative and meaningful work.

• **Excitement and Joy**: Joy was a recurring theme in the data collection. Participants expressed that the fun, playful aspects of the project kept their spirits high, while excitement emerged as key to keeping them motivated to create something impactful.

Create Detailed Storyboards and outline (pre-production version)

- **Storyboard**: After identifying the main themes from the interviews I developed an outline sketch of a storyboard including how to use the various footage types I had and what additional footage, or generated footage I might need to visually capture the emotions and concepts discussed in the interviews.
- Planning and Executing Video Shoots:
 - Based on the first storyboard layout I am in the process of reviewing all the transcripts to identify the keywords in the textto identify the video clips I want to use. This will dictact the second iteration of the storyboard. The first one being done before and during the interview process.
 - Each scene will be designed using the key of the affinity diagram.
 - The video will be broken into three main sections with a prologue defining the project. The thress main sections will be Liminality, Jumping-in, and Fun.
 - FOOTAGE:
 - PROLOGUE explaining the project (why)
 - .Liminality (three panel)
 - (1) A quick list of all the different projects and what they are
 - (2) Life during Covid, students talking about their feelings of disconnection. Issues with technology (Zoom footage when things didn't work)
 - (3) Choices and Motivation.
 - (4) Images that evoke the idea of liminal space.
 - (5) WORDS
 - .JUMPING IN(longest segment done in a grid) Some important footage will be full screen. Then go back to grid.
 - (6) I will talk about each project and name them, and a tile for that program will appear on screen
 - (7) Brief intro (BY STUDENTS) to all the different types of projects (interspersed with me talking about the projects and their project assets
 - (8) Mentor footage about creating supportive space
 - (9) Students talking about network, experiences.
 - (10)Images that evolk liminal space.
 - (11)Words
 - .Fun (three panel) Sub-heading "Tear Down That Wall" This is where mose of the Zombie project will be,
 - (14) happy faces footage talking abou thow much fun and how connected they felt with group.
 - (15)Other mentor footage if they are laughing
 - (16)Other student fuotage about having a great time

- Visual: Evocative images of liminal spaces (e.g., empty hallways, twilight).
- Audio: Ambient sound to create a reflective mood.

Segment 2: Jumping-in (Grid Layout)

- Grid Panel Layout (8 small panels, 2 rows of 4)
 - Full Screen Footage (1-2 panels)
 - Visual: Key project highlights (students engaged, creating).
 - Audio: Upbeat music.
- Quick List of Projects (2-3 panels)
 - Text: Titles of various projects with brief descriptions.
- Mentor Footage (2 panels)
 - Visual: Mentors discussing support and encouragement.
 - Audio: Sound bites from mentors.
- Student Experiences (2 panels)
 - Visual: Students sharing their networks and experiences.
 - Audio: Students talking about the benefits of connecting.

• Images of Jumping In (Remaining panels)

- Visual: Dynamic shots of students taking risks (e.g., starting a project).
- Audio: Energetic sound effects.

Segment 3: Fun (3 Panels)

- Panel 1: Title Card
- Text: "Tear Down That Wall"

Panel 2: Zombie Project Highlights

- Visual: Footage of students laughing and enjoying the Zombie project.
- Audio: Students sharing fun moments and their connection.
- Panel 3: Mentor Footage
 - Visual: Mentors laughing and enjoying interactions.
 - Audio: Lighthearted conversations between mentors and students.

Epilogue

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- Panel 1: Reflection on the Journey
 - Visual: Montage of all themes combined (liminality, jumping in, fun).
 - Panel 2: Closing Message
 - Text: "Together, we navigate the in-between."

COLORS (identified in workshops)

Colors: (Maybe tell in Prologue about the themes, words and colors)

Colors that could represent liminality:

- Muted purple or lavender: Purple often symbolizes mystery and transformation. A muted shade can represent the in-between nature of liminality.
- Soft gray: Gray is neither black nor white, representing the ambiguity and uncertainty of liminal spaces.
- Pale blue: A soft, misty blue can evoke a sense of being in a dreamlike, transitional state.

Rationale: These colors are neither vibrant nor dull, reflecting the "in-between" nature of liminality. They create a sense of uncertainty and potential.

2. Jumping-in

Colors that could represent jumping-in:

- Bright blue: Blue is associated with depth and stability, but a bright shade adds energy, representing the act of taking the plunge.
- Emerald green: Green symbolizes growth and new beginnings, fitting for the concept of jumping into something new.
- Vibrant orange: Orange represents enthusiasm and adventure, capturing the energy of taking action.

Rationale: These colors are more vibrant than those for liminality, representing the energy and decisiveness of jumping in. They convey a sense of action and commitment.

3. Fun

Colors that could represent fun:

- Bright yellow: Yellow is associated with happiness, optimism, and cheerfulness.
- Hot pink: Pink, especially in brighter shades, conveys playfulness and excitement.
- Vivid turquoise: This color combines the calmness of blue with the energy of green, creating a lively, fun vibe.

Rationale: For fun, we're looking at highly saturated, energetic colors that evoke positive emotions and high energy.

Overall color scheme:

• Liminality: Muted purple \rightarrow Jumping-in: Bright blue \rightarrow Fun: Bright yellow This progression shows a transition from the uncertain, in-between state (muted colors) to decisive action (brighter, but still grounded color) to full enjoyment (vivid, energetic color).

Appendix D Affinity Clustering

Data set

Connection	• Courage		LIMINALITY	JUMP			FUN
Comfort	Experimentation		Concepts/Subcategories		Concepts/Subcategories		
Honesty	Resilience	Words		Words	39100	Words	Concepts/Subcategories
Wellbeing	Proactivity	Apprehension	Engagement and Connection: Establishing	Engagement	Growth and Autonomy: Understanding		Engagement and Connection
Reflection	. Joy	Support	strong relationships Providing emotional	Trust	interests to enhance engagement.	Joy	Fostering teamwork and community spirit
Autonomy	Excitement	Maturity	assistance. Open communication encourages trust	Confidence	self-reflection Empowering students to take accountability f	Excitement	Ensuring a welcoming environment
Growth	Engagement	Fear	Safe environment for expression.	Collaboration	Challenges and Overcoming Obstacles:	Engagement	Growth and Autonomy:
Transformation	Satisfaction	Uncertainty	Growth and Autonomy: Encouraging	Connection	address challenges.	Owership	enjoyable activities that spark interest/ imagination
Apprehension	Fulfillment	Diversity	ownership promotes independence. Reflection towards growth.	Comfort	Celebrating Progress: Acknowledging small	Fulfillment	confidence-building.
Support	Friendship	Vulnerability	Challenges and Quercoming Chat-start	Honesty	successes to boost motivation	Friendship	Challenges and Overcoming Obstacles:
Maturity	. Discovery	Challenges and C Introspection Identifying specific Adaptability Resilience to bound	Identifying specific challenges students	Wellbeing		Discovery	positive outlook to view challenges as fun l recognizing achievements.
Trust	Creativity		face. Resilience to bounce back from setbacks.	Reflection		Creativity	
Confidence	• Reward	Time	Building strong networks	Autonomy	I	Reward	
Fear	• Enjoyment	Panic	Adaptability and flexibility to navigate changing circumstances.	Growth		Enjoyment	
Uncertainty	Exploration			Transformation	n	Exploration	
Engagement	Playfulness			Motivation		Playfulness	
Diversity	. Adventure			Progress		Adventure	
Vulnerability	Novelty			Interest		Novelty	
Introspection	Teamwork			Responsibility		Teamwork	
Adaptability	 Inspiration 					Inspiration	
Motivation				Skill Honestv			G
Progress				Decision-			u
Interest				making			a
Responsibility				Challenge			d
Skill				Creativity			ra
Collaboration	1			Engagement			ils
Decision-making				Impact Suppor	rt		
Challenge				Intrinsic			
Time Management	1			Fulfillment			
Creativity				Courage			
				Experimentatio	on		
	!			Posilionco			
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Appendix E





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Storyboard for Video Scenario **Title:** (Tentative) "Jumping In"

Project Information: Visualization of the audio and video clips, themes, VO, and additional video and visual elements for my creative project focusing on student experiences of co-creation, agency, and intrinsic motivation.

PROLOGUE - explaining impetus for project (luncheon with students) and Amabile and Pratt design audit



- Shot Description: Word sequence treatment of the word "Prologue" followed by generated video using photo of Cornell dining room, and then a photoshopped image of the actual luncheon with students. Then montague of images, and generated and actual video illustrating feelings of students being disconnected.
- Sound & Dialogue: Sounds of dishes and silverware clinking then VO of me talking about the student luncheon described in the project proposal, being the start of this project and the Amabile and Pratt design audit
- Move from one main image to two panels for visual interest



- Shot Description: Cut to a slow-motion scene of the luncheon
- VO recounting disengagement, and impetus for project.
- Introduction of projects just the list and short description. Elaborate in "Jumping in" section
- LIMINALITY SEQUENCE "Navigating the In-Between"







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Shot Description: A series of glitching, distorted images: a pixelated Cornell campus, students frozen in time mid-motion, a fragmented Zoom screen in split screen. On left melting screens create disorienting and dreamlike images.

- Shot Description: Word sequence treatment many of the words identified as "liminal" words. in a sequence in the panel on the right. in the middle is an edited sequence of students (others) talking about feelsings of disconnection. difficulty with technology or feeling apprehensive. the the left is a sequence of images and video clips the represent the feeling of a liminal space.
- Sound & Dialogue: Soft sounds and music that evoke liminal space interspersed with audio from video clips.

Frame is sometimes 2 panels, sometimes 3. The background color will use color key identified through workshops

A chaotic blend of ambient sounds: whispers, phone notification dings, and cacophonous music.

Audio:

Screen shows fleeting, images of students' faces, eyes darting, hands fidgeting, and screens reflecting in their glasses. Imitating avant-garde filmmaking







Panel 2: Introduction to Liminality

- • Visual: Abstract imagery representing liminality (e.g., blurred lines, doorways).
- Panel 3: Zoom Footage

Segment 1: Liminality (3 Panels)

- Panel 1: Life During Covid
- Visual: Students in their homes, looking isolated.
- Audio: Voiceovers of students discussing feelings of disconnection.
- Panel 2: Choices and Motivation
- Visual: Montage of students making choices (e.g., studying, hobbies).
- Audio: Narration on motivation challenges during this time.
- Visual: Clips of technology issues during online classes (e.g., frozen screens, awkward moments).Visual:
- Evocative images of liminal spaces (e.g., empty hallways, twilight).
- Audio: Ambient sound to create a reflective mood.

Jumping In SEQUENCE - Intrinsic Motivation, Agency, Choice, Trust, (other words from word list)





- Shot Description: students, as they recall a moment of autonomy. or feeling happy and fun while working on project
 Notes: Word sequence with the "fun" words
- Animated or stylized sequence showing thought bubbles or icons representing different ideas coming together. (Cartoon sequence after Caleb talks about Ithaca Murals)



- Footage to compile: Caleb interivew with tour footage converted to animation in 2 panel layout. When changed to 3 panel - use "word segment" then images of murals and students working on murals.
- Segment 2: Jumping-in (Grid Layout)
- Grid Panel Layout (8 small panels, 2 rows of 4)
- Full Screen Footage (1-2 panels)
 - Visual: Key project highlights (students engaged, creating).
 Audio: Upbeat music.
- Quick List of Projects (2-3 panels)
- Text: Titles of various projects with brief descriptions. (use same visuals form intro of projects in prologue. Interspersed with clips of students talking about their projects.
- Mentor Footage (2 panels)
- • Visual: Mentors discussing support and encouragement.
- Audio: Sound bites from mentors.
- Student Experiences (2 panels)
- Visual: Students sharing their networks and experiences.
- Audio: Students talking about the benefits of connecting.
- Images of Jumping In (Remaining panels)
- • Visual: Dynamic shots of students taking risks (e.g., starting a project).
- Audio: Energetic sound effects.

- animation: Start with individual icons, then have them converge into a central idea.
- Sound & Dialogue: The student describes, "One decision that really stood out was when we all agreed to..."
- Notes: Visually depict the collaborative decision-making process.???
- **Special Effects:** Use of After Effects to animate idea icons and convergence.
- Generated video: A stylized sequence where the student's decisions ripple out, affecting the entire project (visualized as a ripple effect or branching paths).
- Start from a single point (the student's decision) and zoom out to show the ripple effect across the project.
- Notes: Show the impact of agency on the final product. (show work that happend as a result of their decision process
- Special Effects: Ripple or branching path effect using After Effects and generated video

FUN SEQUENCE





- NOTES: two panel student talking interspered with the project outputs (storyboard, video, etc.)
- Sound & Dialogue: The student explains, "First, I start by brainstorming, then I move on to..."
- Notes: Ensure clarity between student's explanation and visual representation.



- Shot Description: A visualization of navigating challenges—an abstract representation (e.g., maze, puzzle) showing obstacles and solutions. (generated video and images
- Sound & Dialogue: talking about solving problems, process. what they did.
- Notes: Symbolize problem-solving in a creative and engaging way. in generated video.
- Special Effects: Use of After Effects to animate the maze/puzzle solving itself.

Segment 3: Fun (3 Panels)

- Panel 1: Title Card
- • Text: "Tear Down That Wall"
- Panel 2: Zombie Project Highlights
- • Visual: Footage of students laughing and enjoying the Zombie project.
- Audio: Students sharing fun moments and their connection.
- Panel 3: Mentor Footage
- • Visual: Mentors laughing and enjoying interactions.
- Audio: Lighthearted conversations between mentors and students.

Incorporate workshop details and whiteboards in to show "how" they worked on projects

Reflect/Reflection - Used multiple times to describe the process of students thinking about their experiences and learning	Frustration - Mentioned in relation to a student's feelings about their project	Motivation - Discussed in terms of understanding students' core motivations for their projects	Mentorship and collaboration with undergraduate students	Guiding students through research processes	Encouraging student autonomy and decision- making	Helping students identify and refine research topics
Support - Used to describe the mentor's role Panic - Mentioned in the context of reassuring a		Excited - Used to describe a student's	Balancing academic rigor with undergraduate capabilities	Motivating students throughout their projects	Experiential learning and its benefits	Use of reflection journals for student growth
in helping students Overwhelmed -	student about normal processes	their research results	Challenges in maintaining student motivation	Adapting mentorship approaches to individual students	Importance of proactive communication	Balancing traditional coursework with experiential
Described a student's state when dealing with project execution	Nervous - Used to describe a student's feelings during fieldwork	Mentioned in relation to a student's ability to make decisions in the field	Personal growth as a mentor	Time management challenges for students	Translating experiential learning to career	Hybrid and in- person mentoring environments
Struggle/Struggling - Used to describe students' difficulties with various aspects of their projects	Comfortable - Implied in discussions about creating an environment for open conversation	Trust - Implied in discussions about students sharing their work and thoughts with the mentor	Collaborative decision- making in project development	Intrinsic motivation in research projects	Creative outputs and digital storytelling in academic projects	Challenges in encouraging creative approaches in academic contexts

EPILOGUE SEQUENCE

Recap of projects and what comes next. My reflection. Footage needed: Campus shots of students working together.

- Panel 1: Reflection on the Journey
- • Visual: Montage of all themes combined (liminality, jumping in, fun).
- Panel 3: Thank /Contact Info
- • Visual: Social media handles, website, or contact information.

Audio: Uplifting music

Acknowledgements and software tools used