POST-INTENTIONAL PHENOMENOLOGICAL APPROACHES TO UNDERSTAND THE LIVED EXPERIENCES OF STUDENTS LEARNING WITH A GAME IN HIGHER EDUCATION ART APPRECIATION

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This study encompasses my attempt to understand the lived experience of students in a higher education art appreciation course when a traditional textbook was replaced by a computer game. The methodology uses a mixture of phenomenological interviews and games as well as game machines to interpret these lived experiences. The process of allowing the research to dictate the direction I would take in my research is central to my research process. The initial research idea evolved into three research games and three versions of those games by using the data from student interviews as a generative data. The implications from this study focus upon creating new pedagogical interventions in the form of a studious labyrinthian pedagogy rather than a finite maze-like approach to art education. This dissertation examines how art education can benefit from more freedom and exploration for students to navigate their own learning.

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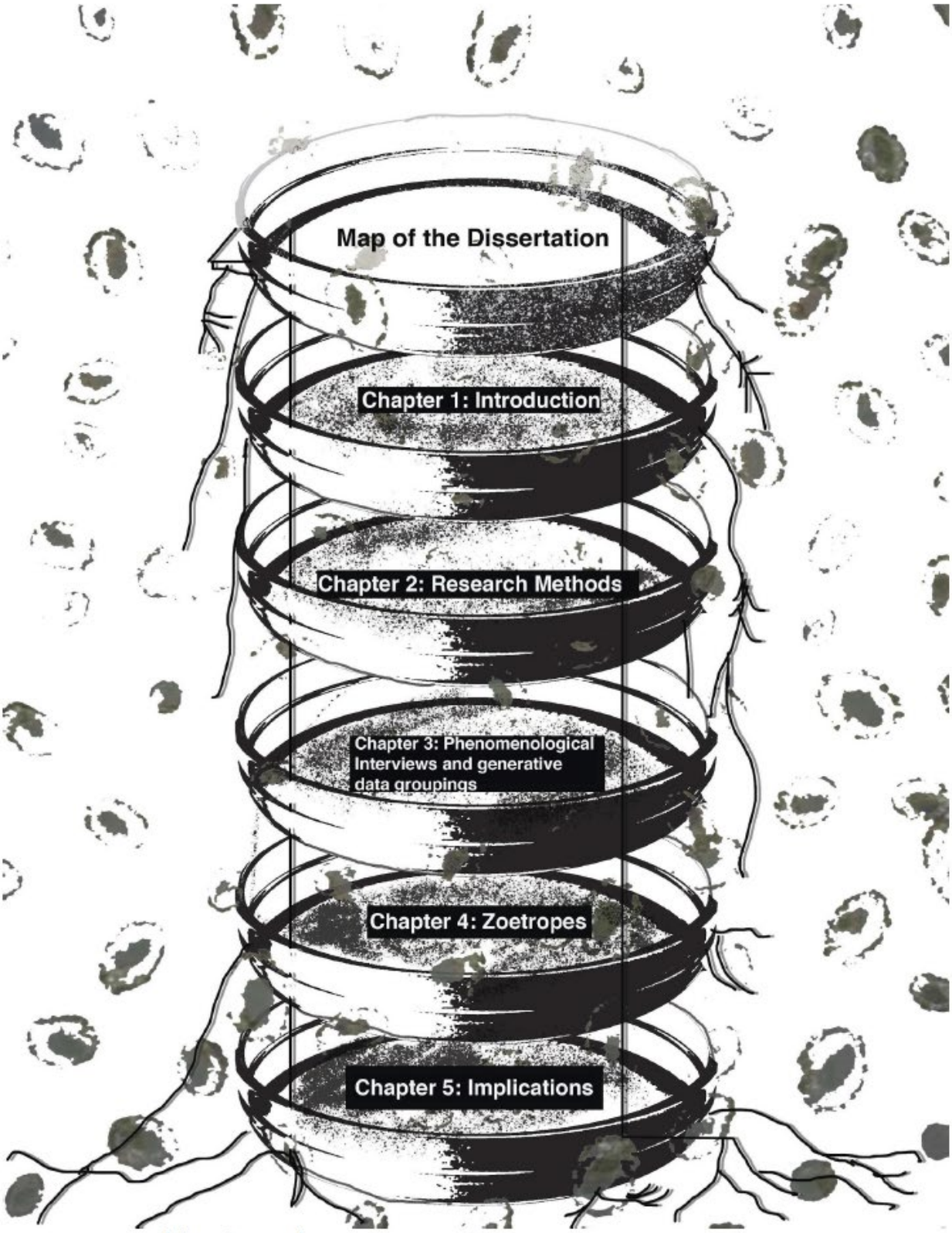
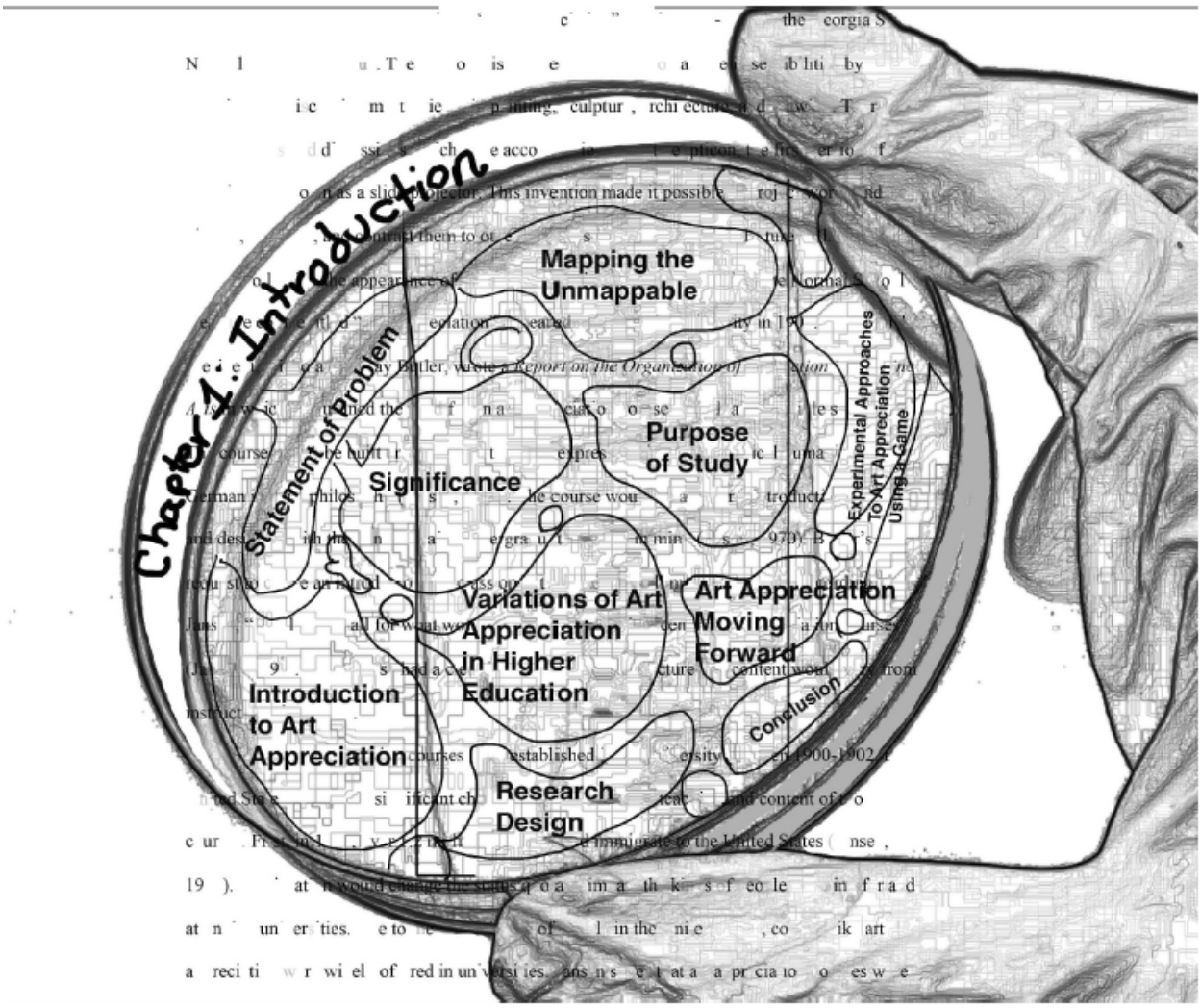
MAIN MAP OF THE DISSERTATION



CHAPTER 1

INTRODUCTION

Figure 1.1: Map of Chapter 1



1.1 Map of Chapter 1

Phenomenology is the study of the lived experience (Merleau-Ponty, 1962). Education, specifically art education, is full of rich, diverse student experiences because art and art education students come from all ages and backgrounds. This dissertation research centers around creating new approaches to understanding art education experiences using games. The research was conducted when I taught Honors Art Appreciation courses and replaced a textbook

with a computer game. A key element of the research was to examine the root of students' lived experiences learning with games. Lived experience is best explained as an umbrella term for the in-class experiences and out-of-class experiences the student encountered while using the game and course content.

Max Van Manen in his book *Researching Lived Experience* states that appropriate topics for phenomenological inquiry are determined by "questioning the essential nature of a lived experience: a certain way of being in the world" (Van Manen, 1990). Each student in my Honors Art Appreciation courses had a unique perspective and way of being in the course, the university, in education, and in life. The students all had varied levels of interest and affinity for games and the content of art appreciation.

The research in this project ranges from Deleuzian style concept mapping (Zdebik, 2019) at the start of each chapter, continuing on to a series of experimental phenomenological games based on student interviews and data gathered from them and from scholars in the field of art education and phenomenology. The overall goal of this research is to allow the research to emerge and direct itself, making the researcher/phenomenologist a co-pilot and cartographer rather than a director. This allows the researcher to undertake experiments in art making, diagramming, and mapping to better understand the array of the students' experiences, without being restricted to frameworks such as phenomenology or postmodernism. Instead, the research maps the flow of experience across boundaries and borders.

In this sense, the dissertation corresponds to what has been called "post-intentional" phenomenology. A hallmark of post-intentional phenomenology is the ability to expand theories into the realm of multiplicity, difference, and partiality (Vagle, 2014), meaning that post-intentional phenomenology has no set method but evolves with the unraveling of the research.

The maps, diagrams, and experiments in the dissertation all lend themselves to new ways of thinking about the use of games in a course, as well as the role of the researcher, and the ways in which phenomenological studies are approached. Aside from experimental mapping and data manipulations with phenomenological interview data, there are implications for a new, post-intentional phenomenological research method and post-intentional pedagogy in art education which can significantly impact how courses in art education are designed, constructed, and taught. This approach in art education is warranted as new hybrid models of learning, distance learning, and learning in more virtual spaces became a necessity due to the COVID-19 virus and Delta variant. In my own experience as a teacher, seeing the shift from in person to digital and virtual learning opens a new space to examine how games can be used in a virtual learning or hybrid environment.

1.2 Mapping the Unmappable

To illustrate the scope and direction of the research as it unfolded, this dissertation employs a series of maps. Maps and games have co-existed since the inception of gaming (Z.O. Toups et al, 2019). Maps and games operate by providing players and participants with unique categories of information, navigation, and limitations (Z.O. Toups et al, 2019). Using maps throughout this the dissertation breaks away from the constraints of traditional modes of organizing content and expressing findings. Typically, a dissertation's content is organized with a structured approach of chapters, questions, literature review, a methodology, data, and results. This dissertation uses the combination of experiments and the creation of games to understand the existing literature, scholarly contributions, background information, as well as phenomenological student interviews, to create a game out of the dissertation's content. Creating a game from the dissertation's content is a new method of conducting art education research

along post-intentional, phenomenological lines.

For the reader to follow the unfolding of my research, maps have become a conceptual tool and practical guide to orient the reader on the content of the chapter. Reading a map enables the participant to consume and understand the scope of the information provided as a means of "wayfinding." I use the term cartography, or game cartography, because the maps created for this dissertation are in a state of perpetual addition, accumulation and expansion ((Z.O. Toups et al, 2019) as the research unfolds and builds on itself.

To orient the reader further into the full scope of the dissertation and research content an overall large map begins this work. Made in a Deleuzian style, it means that all the possible connections are present as a challenge (Zdebik, 2019). The cartographic rendering is a layered or stacked map, reminiscent of levels in a game, or the infinite loop of the act of researching. Each level is modeled after a petri dish, illustrating how each level or chapter, is a microcosm or its own world. Deleuze's notion of "perplication," in which worlds (realities) exist adjacent to, fold into, and rub next to other worlds, could result in new meaning. This rationale is the reason each petri dish-like environment exists on its own, but always in relation to other levels/chapters via stacking or strata. To further include theories from Deleuze, each level/chapter illustration has "threads" of thought or tangents (Deleuze, 1968) which weave throughout the research. Outside the scope of the petri dish- like environments are specs, dots, and lines, which represent the other possible directions the research could have taken or someday may take.

The main map represents the positionality of the research in all possible corresponding fields, which are represented by cylindrical amebic specs or dots in the background, to further visually situate the immense complexity and scope of this project. One could imagine every dissertation written about art education, art appreciation, various styles of phenomenology, all as

a bundle of petri dishes in a lab. There would be hundreds and thousands all housed together but when you take one out, let's say this dissertation, you unpack all the petri dish layers and closely examine the content and realize the questions and new knowledge gained exist harmoniously and in a state of interconnectedness with all the other research around it. This analogy alludes to the fact that this research could have taken hundreds of other combinations of approaches, so the maps orient the reader to what experiments or implications are being examined.

To zoom into the large map, each chapter begins with a close-up map, or a frontal view of the petri dish contents. This close up view shows a visual connection of how it felt to conduct the research as well as being a conceptual outline. These close-up maps are both practical and artistic renderings of mapping the content I was researching, therefore, connecting the process of research to an illustration. This cartographic illustration shows contents of the chapter, main points, key terms, and highlights the emergence of new ideas and content as well as concerns or shortcomings. These will vary with each chapter. Short comings or moments where the research felt inconclusive were important to document, because these moments perpetuated and spurred the research forward into further iterations. There is also a conceptual correlation to writing a dissertation during the year of the global pandemic of COVID-19 and examining how research and the researcher exist in a partnership of observation and discovery, but also in isolation. The researcher is always searching deeper, clearing biases, and observing the phenomena while waiting for it to reveal new insights. After living with this research for two years, it becomes a living part of the researcher's life and mentality. This close up style of maps is present at the start of every chapter, to again aid the reader in navigating and viewing the content of each chapter in a visual and conceptual way that connects to the spirit of the research which has been a central part of my life.

The close-up map, Figure 1.1, shows the scope of the first chapter. The background information is disseminated in the primordial ooze of the dish, interacting with all the subsection headings. The background information also goes beyond the scope of the petri dish-like environment, spilling out into the blankness of the page as a nod to foreshadowing the following chapters. The researcher is present through the symbolism of the gloved hand, a nod to the scientific caution taken in research laboratories. In the background is a circuit board-like drawing with lines, which underpins and connects all of the research. The greyscale is reminiscent of a pencil drawing because in the artistic process, most drawings and/or paintings begin with pencil sketches and go on to be further refined. As the research unfolds throughout the dissertation, the renderings of the maps will change and become more dramatic in contrast, content, and composition.

The goal of maps or cartographic renderings is to provide the reader with a clearly organized research outline which shows the research methodology, questions being addressed, and significance, as well as background about art appreciation and the unique aspects of this honors class. The background regarding how courses in art appreciation in higher education came to be developed, what they sought to accomplish, and where student learning might benefit from the inclusion of games will be explored and included in the maps at the start of each chapter.

This first level map shows how all the sections co-exist and complement one another. More importantly, the map illustrates that they are all equally important and connected to my own reality and biases as an art educator, artist, and researcher. The fact that the maps are a mixture of hand-drawn renderings and digital artwork meshed with theoretical concepts from Deleuze, visually portraying the complexity of undertaking post-intentional phenomenological

research. These maps are visual meditations which provide insight into my process of understanding the information I chose to focus on while communicating with the reader what the process entailed.

1.3 Relational Tensions

To situate some relationships of terms, concepts, data, and experimentation, it is helpful to think of the content of this dissertation as having tensions with and between each other as well as oscillations between form, function, and iterations. These complex interconnected relationships between temporality and materiality as well as evolutions of thoughts and experiments via games can be illustrated with Table 1.1:

Table 1.1: Tensions and Outcomes in Dissertation

Tension 1	Tension 2	Relationship(s)
Social science methods	Research creation	Social science research tends to fall into qualitative or qualitative. Research creation allows for experimentation in unpredictable directions (Loveless, 2019).
Data reflecting lived experience of students	Data used as raw material for games and experiments (detached from students)	The data is twofold, one part is the words from the students in the phenomenological interviews. The second part is deconstructing those words and subjecting them to decompiling and experimentation using games to see what emerges. These push and pull and complement each other in unpredictable ways.
The maze	The labyrinth	The maze represents spaces and tasks with a start and end. The labyrinth is unending and circuitous, which can be explored indefinitely.
Form	Content	Form represents the physical manifestation of experiments or data, such as a game, a piece of origami, or a zoetrope. The content is what is put into that physical or generative devise.
Informative/ productive	Maddening/ chaotic	This tension addresses the contrast and push and pull between what experiments and games I create are conveyed as informative, enlightening, or productive in respect to the research questions. Madness and chaos is also present in moments of vertigo and de-centering of the researcher.
Proliferation	Interpretation	The tension is ever present between making anew iteration or evolution of an idea, versus when to stop and interpret a meaning or have moments of insight.

Below is another expression of tensions in the format of a formula. Tensions 1 and 2 with the relationships of the researcher and research, are underscored by the search for phenomenological essences. This diagram or formula explains how tension 1 is of no greater importance than tension 2 and vice versa. Wherein tension 1 is greater than or equal to tension 2, which in turn equals tension 2 which is less than or equal to tension one, over R squared (the r's represent research and researcher).

$$\frac{T1 \geq T2 = T2 \leq T1}{R^2}$$

The journey through and with these tensions has been informative and perplexing. Each of the relationships in Table 1.1 and the figure above push and pull both the research itself as it does not neatly fit into one category, as well as the researcher who strives for insight. As the reader progresses through the dissertation, one may encounter moments of this tension and disorientation. This is purposeful because the two-year process of experimentations was in reality tenuous and fraught with epiphany and disconcertedness.

1.4 Statement of the Problem

Art appreciation has traditionally focused on lecture, textbooks, and classes and are conducted either online or in-person (Jansen, 1991). Students in higher education are spending increasing amounts of time in large online courses, because of the flexibility to work on a student's own schedule, according to my honors art appreciation students. The high enrollment numbers of these courses (which can be in the hundreds) mean instructors sometimes struggle with how to create engaging and enriching student experiences. A possible solution to this problem is to utilize the computer game as a way to design interactive experiences. To understand the impact of this approach on students' lived experience (students' experience in the course) this research focused on creating a specific case study about replacing an art appreciation

textbook with game technology at a Tier One research university in the Southwest and then examining the student perspective by using phenomenology and determining how students were learning and feeling about the use of a computer game. It should be noted that the course I taught was a class of twenty-five students, which is atypical of large art appreciation courses. However, the same practices can be scaled up for larger class sizes. I also did not grade students on their ability to play to game, but rather to complete set milestones within in game, like finishing a level regardless of how many attempts the student used.

1.5 Purpose of the Study

The purpose of the study was to see how the lived experience of students was or was not affected by the replacement of a traditional art appreciation textbook with an interactive computer game. The purpose was also to see if game technologies could create a space for a more exploratory learning environment while also allowing students to discover course content beyond the typical presentation of information in a textbook. The instructor's role shifted from a lecturer to a guide and participant in the game and discussions about the game content in class.

Another central aspect of the purpose of this study was to develop a methodological approach which utilized phenomenology and pushed into the realm of post-intentional phenomenology by designing experiments to allow the questions and phenomena being studied to manifest itself in unexpected and unpredictable ways.

In other words, this dissertation explores how the design of a dissertation can formally come to embody its own content which transforms the data collection and analysis process into a game and co-exploration between the researcher and the research, making this a key argument that this style of post-intentional phenomenological research is both valid and needed in current scholarship. This methodological invention is needed on two levels: First, teaching art education

content (and by extension art appreciation) needs innovative practices for both students and practitioners. This need arises from the rapid expansion of virtual educational practices and the need to allow students to feel that they can be self-motivated to learn and discover the course content on their own. One reality is that gaming technology (in my own experience) is rapidly changing. From board games to early gaming consuls, to computer games and now to headsets and virtual reality, gaming in classrooms should keep up with the fast pace of technological innovation that the students are accustomed to using. Second, according to Vagle, research inspired by arts-based approaches and post-intentional phenomenology demands experimentation with form as much as with content. (Vagle, Hofsess 2016). Thus, the overall purpose of making the dissertation a manifestation of post-intentional phenomenological theories was put into practice the use of mapping, diagraming, and illustrations.

1.6 Significance

There is a gap in scholarship regarding the impact of games on learning in higher education art appreciation. That is especially true when further examining the subject through a phenomenological lens. In the last decade, games have been implemented in a variety of subjects in higher education, including art education and art appreciation to boost student engagement. Scholars in the fields of art education, art appreciation, and art history indicate that utilizing games in higher education have constructive results with student engagement (Eng, 2018). Games in art appreciation and art education have typically been board games, computer games, or as effective study aids designed to help memorize material like artists' names and works (Donahue-Wallace, 2008). In *"GAME ON! An interpretive phenomenological analysis of game-based learning in an undergraduate liberal arts environment,*" Eng notes that some form of games in a curriculum is important for increasing student engagement. His study demonstrated

that using games in learning environments was a "relevant and applicable form of experiential learning" (Eng, 2018). Games engage students because of the individual or group feeling of play and having fun. Eng's research into the inclusion of games, game-based learning is a significant reason to further investigate how games can be used in art education and art appreciation to improve student engagement with course material and create new ways, perhaps more dynamic and enjoyable ways, of learning, which transcend the classroom and content and takes root in the real world. An example would be exploring the family power dynamic of a Renaissance banking family starting an art academy or an art collector during the Impressionist movement in a commercially available game used in the course. The commercial game used in this course was developed originally for art history courses, but was used experimentally in my art appreciation course because of the interactive content.

Aside from how students learn about art education content through playing a game to cover significant time periods and movements in art history, it is important to understand how the research itself was designed and how the use of experimentation, mapping, and diagraming of the research for this dissertation led to a deeper understanding of the underpinnings of students' lived experience (how it feels to learn using a game) in an Honors Art Appreciation course (which used a game rather than a textbook). The exploration of using games as a pathway or way to learn can transcend traditional research methodologies, i.e., traditional qualitative and quantitative research methods. Specifically, the dissertation itself becomes a game that combines arts-based research (research using artistic methods), post-modern theory, and post-intentional phenomenology (experimental phenomenology) in order to create novel interpretive possibilities for otherwise conventional phenomenological interviews. The dissertation begins with a phenomenological reference (Vagle, 2014) which allows for multiple iterations and evolutions of

games. The games and experiments I made explore students' lived experience, but more importantly create games out of this experience. This research furthers Eng's research into the phenomenology of game playing in higher education as well as post-intentional methodologies and methods for shifting from descriptive modes to creative modes of research.

1.7 Research Design

The impetus for this dissertation stems from a desire to understand how online art appreciation might be considered a form of "engaged pedagogy" (hooks, 1994). The essence of engaged pedagogy considers the entirety of the whole student—the mind, the body, and the spirit (hooks, 1994). This dissertation research aimed to focus on the lived experience (the heart of phenomenology is to uncover the essence or deepest root of experience pertaining to a phenomena) of the students using a game to learn about art appreciation in higher education. The research design utilized phenomenological interviews and post-intentional phenomenological experiments to understand how online games might be used to increase engagement with the whole student, who may already be online or prefer interactive activities to lecture. The interviews and experiments represent a moment in time for the teacher-as-researcher, dwelling in and phenomenologically manipulating data (like the literature review and the student interviews) to allow a plurality of meanings to emerge.

The research design begins with a phenomenological method for conducting student interviews, but then begins to transform through a gaming process that sets in motion multiple iterations of sorting, coding, reading, re-reading, and creating maps, diagrams, and illustrations, thus transforming the content of the research into a new form. This open-ended approach to research allows the researcher to play a game with data and allows the game to evolve and change, to dive more deeply into discovering what is at the heart of the students' lived

experiences with playing a game in art appreciation.

Linda Finlay (2008) uses the term "variants" in phenomenology to describe the multiple approaches that may be used in research. This design uses two such variants. First, post-intentional phenomenology which incorporates the Deleuzian theory of "lines of flight" (Deleuze, 19XX). Second, hermeneutic phenomenology enters the picture because of the narrative nature of the phenomenological interviews (Vagle, 2014). These combine to create an approach to phenomenology uniquely situated for understanding students' lived experience, while at the same time, leaving space for unknowns and new knowledge to emerge concerning the nature of gaming and future models of a game-based pedagogy.

1.8 Research Questions

1. What is the lived experience of students when a textbook is replaced by a game in higher education art appreciation?
2. What are the possibilities for pedagogy and learning in art education when students navigate through the game's content, making their own path for learning?
3. What methodologies can be designed to study games through the logic of gaming?

1.8.1 Introduction to Art Appreciation

Researching how students may learn using a game in art appreciation is a monumental task. There is a long and fascinating history of how the course developed and evolved, especially in the digital realm. Considering the scope and background of art appreciation is essential to seeing how it started and where it could be headed.

To situate the importance of art appreciation, it has a one-hundred-year-old tradition in higher education (Jansen, 1991). Art appreciation evolved from the tradition of "Art Interpretation" classes in the 1870s at universities like Harvard, Yale and Syracuse (Jansen, 1991). The initial shift away from making art to speaking about or discussing art created the

groundwork for art appreciation. The first appearance of a course titled “Art Appreciation” was in 1900-1901 in the Georgia State Normal School catalogue. The goal of this course was to develop aesthetic sensibilities by studying and discussing masterpieces in painting, sculpture, architecture, and drawing. There were lectures and discussions which were accompanied by a stereopticon, the first version of what is now known as a slide projector. This invention made it possible to project works and discuss, compare, and contrast them to other artworks in the classroom or lecture hall. This use of slides, speaking about and comparing images from various movements are a staple of art appreciation today.

To follow how art appreciation developed further, the appearance of the art appreciation course at Georgia State Normal School, the same course titled “Art Appreciation” appeared at Columbia University in 1902. Colombia's President, Nicholas Murray Butler, wrote a *Report on the Organization of Instruction in the Fine Arts* in which he outlines the need for an art appreciation course as well as a possible structure. The art appreciation course would be built around art history and express a mixture of classical humanism and German idealist philosophy (Jansen, 1991). The course would be a general introduction to art and designed with the non-art major undergraduate student in mind (Foster, 1970). Butler’s request to create an introductory art class open to students in all majors would be according to Jansen, “the clearest call for what would become the twentieth century art appreciation courses” (Jansen, 1991). The course we know today as art appreciation had a clear idea, but the exact structure and content would vary from instructor to instructor, as it does today.

There are a few fundamental differences between courses in art history and art appreciation. The art appreciation courses incorporated art history but were not art history courses. Art history introductory courses, also known as survey courses, are an expansive the

study of art from prehistoric times to contemporary art. Art appreciation courses diverge from. In summation, art appreciation looks at the elements of art and applies them to various artworks from art history. In the case of my courses, the classes were designed around three computer game modules from specific key periods in art history. This is atypical because the course spent more dedicated time on three eras rather than progressing quickly through the study of art from one time period to another. This overview could be chronological and look at major moments in the history of art, but infused knowledge about artistic techniques.

1.8.2 Variations of Art Appreciation in American Higher Education

During the first half of the twentieth century, further historically significant events impacted the study of art appreciation in the university. In a short summation of major events, World War I (1914-1918) pulled thousands of students from universities into enlistment in the armed forces. Also, there was the Great Depression (1929-1939) which created wide unemployment that resulted in a lull in university enrollment generally and in art appreciation courses. Art appreciation course enrollment also dwindled during World War II (1939-1945), possibly because of military needs in the fields of science, physics, and medicine. It was in 1944 that Congress passed the Serviceman's Readjustment Act (1944), better known as the GI Bill.

This flexible and generous aid program allowed numerous veterans to attend universities. As the urban and industrial world continued to evolve in America, vocational programs became more prevalent. Art appreciation, "which had been a mark of elevated (moral) character, of appropriate (professional) preparation, of a kind of (class) superiority, also became an agency of social adjustment to help ensure (socio-economic) progress (Jansen, 1991)".

According to Thelin, Edwards & Moyen, the defining period of art education (the closest model to what we use now) was from 1945-1970. There was dramatic growth in university

enrollment because of the rising birth rate, access to affordable higher education, and the emergence of junior colleges (Thelin, Edwards & Moyen, 2019). Art appreciation was now being taught at universities and community colleges or junior colleges. Enrollment in art appreciation began to be a core introductory course into the humanities.

In the 1960s and 1970s, there were changes in how textbooks and classes were constructed. “Whether it was TV or magazines, the world was changed one image at a time” (Berger, 2019) which we see reflected in many artists’ works and statements. The proliferation of images in popular culture in the 1960’s and 70’s gave rise to new ideas about visual culture (everything from political events to new art making process like social justice art, posters, and performance art would play a role in what was taught in art appreciation). This term would not become cemented into the discourse of art appreciation until the 1990s in universities (Berger, 2019). Art appreciation became a way to understand the visual complexities of art and art related to everyday life (Jansen,1991).

Today a virtual classroom uses an LMS (learning management software) platform like Canvas or Blackboard. The CALC Online Campus paved the way for online and distance education. In 1995, CALC Online Campus changed its name to CAL Campus and used major Internet providers to reach thousands of students. This innovation in online instruction led to the current role of art appreciation in university curricula. While CAL Campus no longer offers Art Appreciation, thousands of universities across the United States now offer it online. Institutions of higher learning took the online platforms and customized them based on students and faculty needs, in the 2000s. The University of North Texas is one example of a school that offers online art appreciation courses which have enrollments of hundreds of students each semester.

1.9 Art Appreciation Moving Forward

Currently, the university course known as art appreciation has a set learning outcomes and learning objectives, mainly based on textbooks. By examining several syllabi from universities and community colleges which teach art appreciation in northern Texas, there are commonalities in terms of themes, content, and learning objectives. Similarly, there are also textbooks that are commonly used in art appreciation classes at these large universities which represent what outcomes art appreciation classes aim to teach. To better understand what the standard content of art appreciation is, several course syllabi and key articles in the field of art appreciation were examined in detail. It should be noted that I chose to focus on Texas for this comparison rather than across the Unites States or globally in order to determine how various syllabi in Texas differ from one another. An expansion of this research as another project could analyze global trends in art appreciation and the incorporation of games.

One aid in examining variations between art appreciation courses is the course description in college course catalogues. The syllabi and course descriptions from the syllabi of two art appreciation instructors in Northern Texas, shed light on the customary viewpoints about teaching art with two distinct approaches. These approaches are either thematic, organized by groupings like Early art, Renaissance art, Impressionism, and so on or non-thematic like elements of art and principles of. Further, after reading numerous syllabi for art appreciation courses in universities in north Texas, the bulk of them fell into the categories of thematic or non-thematic approaches.

The thematic approach focuses on big ideas like why and how art is made. It also includes huge moments in art history as a touch stone for discussing artistic techniques and interventions. The other type of art appreciation courses are a non-thematic examination of art,

which focuses on elements and principles of art followed by an overview of art history. With both thematic and non-thematic approaches, there is typically an introductory level examination of vocabulary about the elements of art and principles of design, as well as terminology for various artistic modes of production like printmaking, painting, drawing, sculpture, and photographic techniques. The common goal of both the approaches outlined above is to expand understanding of the visual world's history through comparison, contrast, and interpretation.

To begin understanding what art appreciation teaches, there are specific learning objectives which need to be addressed. From a survey of syllabi in colleges in Texas, the following learning objectives are found: First, students need to identify the subject or the content of a work of art by examining its iconography or symbols. Next, the student must be able to explain how works of art represent the social, cultural, and historical context in which they were made. A key outcome is that students should be able to analyze art by correctly applying the elements of art and principles of design to a given work. Throughout the course, students should be building and employing the vocabulary of the visual arts (elements of art and principles of design) and applying them when speaking and writing about art. During the course, students craft their own perspectives about art, as well as gain insight into the artists' manner of work and meaning by using specific techniques or elements of art.

To further these learning objectives, students should be able to critically examine a work of art using the correct vocabulary and be able to place the art in the correct time period based on its characteristics. Students need to be able to develop their own well-informed appreciation of how art fits into their daily lives and their community. Further, they should be able to understand global perspectives and/or embrace non-western ideas and conceptions about art. Overall, students should be able to identify key markers that speak to when a work was made, how and

why it was made. A key goal and important outcome of the art appreciation course is to understand that works of art represent not only the artists' ideas, but the ideas of the time, place, social and cultural context in which they were created. This skill set helps students become aware of the visual allusions in art and architecture as well as art history. Additionally, students should be increasing their ability to think critically about images and the context of those images.

To deliver and teach the content of art appreciation, a couple of key textbooks are commonly used across the examples examined. First is *Exploring Art: A Global, Thematic Approach* by Dona Schlesier and Margaret Lazzari. The book has chapters that are organized by big ideas like how we make art, self and society, and making art part of your life. This text introduces art by focusing on art and art making and the language of art and architecture, using the elements of art and principles of design. This text highlight's themes like politics, sexuality, power, religion, morality, nature, technology, entertainment, and visual culture. This text also emphasizes ways in which students can make connections between art and life. These texts have been used for decades and are foundational to how students experience art appreciation.

Another noteworthy thematic textbook that is also widely used in college level art appreciation examined in this research: *Gateways to Art: Understanding the Visual Arts* by DeWitte, Larmann, and Shields. This textbook covers the fundamentals of the elements of art (line, shape, color, form, texture, space, and value) as well as the principles of design along with exercises and examples from various time periods. Next, the book looks at types of media materials. The last section has an a survey of art history, starting in prehistoric times and ending with contemporary art. Lastly, there are themes addressed using all the above. Both widely used textbooks, *Exploring Art: A Global, Thematic Approach* and *Gateways to Art: Understanding the Visual Arts,* employ the learning objectives that are customarily found in contemporary art

appreciation courses in the United States, such as identifying the subject content of a work of art by examining its iconography. These textbooks were essential to consider when creating a new course. By using the computer game in place of a textbook, I had to make sure the course aligned with the content of key art appreciation textbooks to ensure students were being exposed to all of the expected content.

To further situate the investigation of how art appreciation is taught, there is an article by Reynolds in 1965 which asks, "how, through perception at the personal or interpersonal levels, or how, through interrelating the arts, or how, through interdisciplinary leaps, may I make experiencing through art richer for both the individual and the group?" The following ways examine how (pedagogically) instructors teach about art appreciation. The university level art appreciation course has two standard modalities. These are the face-to-face lecture course and the online course. By examining several articles by authorities in the field of art appreciation, further insight can be found into the pedagogy and design of art appreciation courses.

Jansen's dissertation about art appreciation describes the standard art appreciation lecture course as "art in the dark" (Jansen, 1991). This statement describes the setting of lecturing alongside images being projected, often on two screens, in a large lecture hall that accommodates hundreds of students. The instructor is the guide and speaks passionately about form, color, and symbolism in art. The students take notes, and due to their large numbers, there is little physical space to have small group discussions or activities. The instructor presents the content of the selected textbook, chapter by chapter, explaining and pointing out connections between art and life. There are quizzes in class and cumulative midpoint and final examinations. In the lecture course, the instructor guides the student through the main motifs of art and art history essentials. This style of teaching demands that the instructor has a strong verbal presence and a passion for

the narratives and stories behind artwork and artists.

The second way that standard art appreciation courses are taught is online. Art history (and by extension most art appreciation) courses have high enrollment numbers in universities across America (Yavelberg, 2014) and if the face-to-face lecture courses are full, or the student has a conflict in their schedule, or because of COVID-19, the online class is another option for students. The online art appreciation course have the same standard approach that the lecture course has, but is broken down into modules, typically on the campus learning management system such as Canvas or Blackboard. Like the face-to-face course, the online course draws from a textbook (either digital, hardcopy, or prepared by the instructor, or in some cases, a collection of curated materials the instructor has assembled) and goes through each element of art, principle of design, and a brief overview of art history. This standard approach is based on the same experiences a student would have in a face-to-face course, with the convince of unlimited online access.

There are several pedagogical similarities between facilitating face-to-face art appreciation courses and online courses. There are summative and formative assessments to check the student's knowledge of the content. There are written assignments, comparisons, museum trips (in person or virtually) along with exams and quizzes throughout the course. The approach to teaching the face-to-face course in several schools has an online component, where students take quizzes online as opposed to in class. With both the face-to-face and online art appreciation courses, the instructor leads the class through a journey of discovery of terminology, artists, artworks, and art history via lecture in person, by video, with readings from textbooks, along with videos, quizzes, and more.

In a case study titled *Team-teaching art appreciation online without a traditional*

textbook by Rachel Marie Cooke & Anne-Marie Bouche (2017), their case study investigates how some face-to-face and mainly online art appreciation instructors are using more open access resources and putting modules together on Canvas rather than having students purchase expensive textbooks, which benefits students who struggle to buy expensive books during their university studies. The pedagogy for how art appreciation is taught has been consistent with the 1965 Reynolds article about making experiencing art richer for the student and adding interaction to the lecture format. The use of assessment, both formative and summative, as well as exams with writing components, creative projects, and lectures are how the standard art appreciation course is taught, virtually or in person. This standard method has been effective for decades, but as students use games more in everyday life, researchers, like me, have become interested in studying how games can become a significant aspect of courses in higher education.

1.10 Experimental Approach to Art Appreciation Using a Game

The course content of the art appreciation courses I taught from the Fall of 2018 to the Spring of 2019 can be summarized as a general introduction to the visual arts, which used a computer game. The art appreciation course focused on developing an understanding of the vocabulary, media, and techniques that are generally seen in the creative process. The course was designed by me to assist students with identifying and employing formal analysis of artworks and to understand why specific elements of art were used in art making at different times in history. Various projects and assignments offered students the opportunity to write, create, and express their knowledge of important periods in art history combined with a mixture of formative and summative assessments, as well as game play. The pedagogical approach was based on the flipped instruction model (Bergmann, 2012). With flipped instruction, students would read and

play the game at home as homework, then come into class with that knowledge and engage in a discussion or activity. Flipped instruction allows the instructor to focus on activities rather than delivering content.

To expand on the nature of the course content, it is important to consider the layout of the course. The three game modules served as areas of prolonged focus and study. For example, the first sizable module (after the course introduction establishing procedures and expectations) focused on the art, architecture, and artistic practices in Ancient Egypt. It would be unusual for a survey course to spend four weeks on Egyptian art and architecture. By spending more time in the examination of key pyramids, ziggurats, and tombs in different locations in Egypt, students were able to observe the complexities of these artifacts and apply the elements of art to wall paintings and statuary. The first module encouraged students to explore the art of Ancient Egypt as a pharaoh's vizier. The students got to grapple with notions of expanding a kingdom and how to use art symbolically to create propaganda and eternal monuments which helped underpin the pharaoh's rule. By slowing down and focusing on Ancient Egypt in this instance, students could produce more reflective writing and creative analysis which explored the complex mythology represented in the artwork of the period. The same model was used for the next 2 modules studying the Renaisance and Impressionism. The last module was a cumulative review of all the content leading up to a final project of creating an interactive gallery. Additionally, there was more time available to make in- class projects like hieroglyphics on papyrus. The rest of the content for the class followed that model, i.e., a prolonged examination of a time period set around a specific game module. Rather than using a textbook to pick key pieces of art and architecture, the students had to discover similar pieces of art through first person narrative game play.

The course content and unique curriculum design incorporated two key pedagogical practices. The first practice is that of flipped learning, or de-centering the instructor, frontloading information for the students to master, therefore, opening the class to activities and discussion. This concept was popularized by the Khan Academy founder Salman Khan and chemistry teachers Jon Bergman and Aaron Sams. They assigned explanatory reading for homework prior to meeting for class and then completed the homework in class. This approach was also focused on online learning and the development of videos to prepare students for class (Bergmann and Sams, 2012). The notion of flipped instruction goes back to Harvard professor Eric Mazur who created the peer instruction model in which students were given material to read and complete before class, so that the in-class time could focus on discussion and peer interaction rather than the delivery of content (Crouch, 2001). This model of peer instruction began to encompass growing elements of technology like the Internet, videos, and blogs. It evolved into what is now commonly referred to as "flipped" instruction.

In conjunction with flipped instruction, the other approach was Socratic pedagogy. Socratic pedagogy is a formalized extension of the Socratic Method (using questions to guide discussions and class activities) (Boghossian, 2003). With the pedagogical use of flipped instruction, more class time was available for discussion and related activities. The art appreciation courses I taught from the Fall of 2018 to the Spring of 2019 had two sections in the fall and one section in the spring, all of which consisted of art appreciation honors level students. The honors level students had class sizes of 25 students and used of Socratic pedagogy comprised of dialogic circles and discussions. Socratic pedagogy was central to the structure of the course because it offered several benefits (Garlikov, 2001) and is primarily used to teach students how to think critically by employing a thoughtful examination of ideas and issues in art

appreciation (Rud, 1997). Art appreciation is a core university course and one of the areas assessed is critical thinking. By using Socratic pedagogy, the in-class meetings supported prolonged and meaningful discussions about issues pertaining to art appreciation by asking open-ended questions and exploring why and how artists were prompted to respond to the historical and cultural events of their time. Socratic pedagogy was also used at the end of each class to ask students why the artwork discussed that day was relevant (or not) to their lives and current events and allowed for free-flowing discussions.

The course I taught was organized into five sections. The first section was an introduction of the course expectations, the nature of game play tutorials, and the elements of art they would need to understand to analyze the artwork encountered in the games. The second section was a module focused on the art and architecture of Ancient Egypt. It applied the elements of art to specific pieces of art or architecture. The game introduced vocabulary, people, and places. In class, we explored what took place in the games by writing, creating projects, group work, and student presentations. This model was repeated in section three, with the game module on the Renaissance, and in section four with a game module on French Impressionism. The Renaissance module had students play as a banker from the Medici family, with the goal of starting and bankrolling The Academy of Art. This allowed students to consider how art is supported by patrons. This allowed students to compare how art was funded then versus now. The French Impressionist module focused on getting art into the Salon and what happened when art was rejected. This module allowed students to experience how art was used to support the Academy and a specific viewpoint and practice, giving rise to innovation and movements like Realism and Impressionism. The course concluded with section five about contemporary art. All the modules

focused on vital aspects of the story of art and human achievement, which is covered in art appreciation.

The grading and assessment of students was based primarily on completion of the content in the three game modules and on in-class work which amplified game content, for example, creating a biographical statement using hieroglyphics. There was never any penalty for trying and failing a level several times. Some students who were more familiar with online games completed the levels in a few tries while other students took longer. The teacher resources for the game allowed me to see what and how long each student played and what they achieved in the game. Overall, the assessment was broken into four parts for each of the game play modules. First, the completion of the levels in the game; second, the written responses or essays about the level; third, the quizzes over the level, and fourth, the presentation or creative project for each module. The course had one culminating final exam and one creative project to allow students to demonstrate their cumulative understanding of the key concepts in art appreciation.

It was hoped that by replacing a textbook with a computer game, students would be more engaged and form personal connections to the complexities of art appreciation. The game allowed students to research artists and topics in more depth than in a lecture format because they could spend additional hours exploring the course content and connections in the game on their own time, thereby embedding it in their lives. The competitive nature of the game modules—and increasing student point totals—encouraged students to interact with each game level more than once, increasing their point scores and, thereby, their content knowledge. This was manifested in the quality of class discussions where students were prepared and knowledgeable about the content of the course. By using flipped instruction and Socratic pedagogical approaches, the art appreciation course was an experiment in what can be achieved

when textbooks are replaced with alternative media like games.

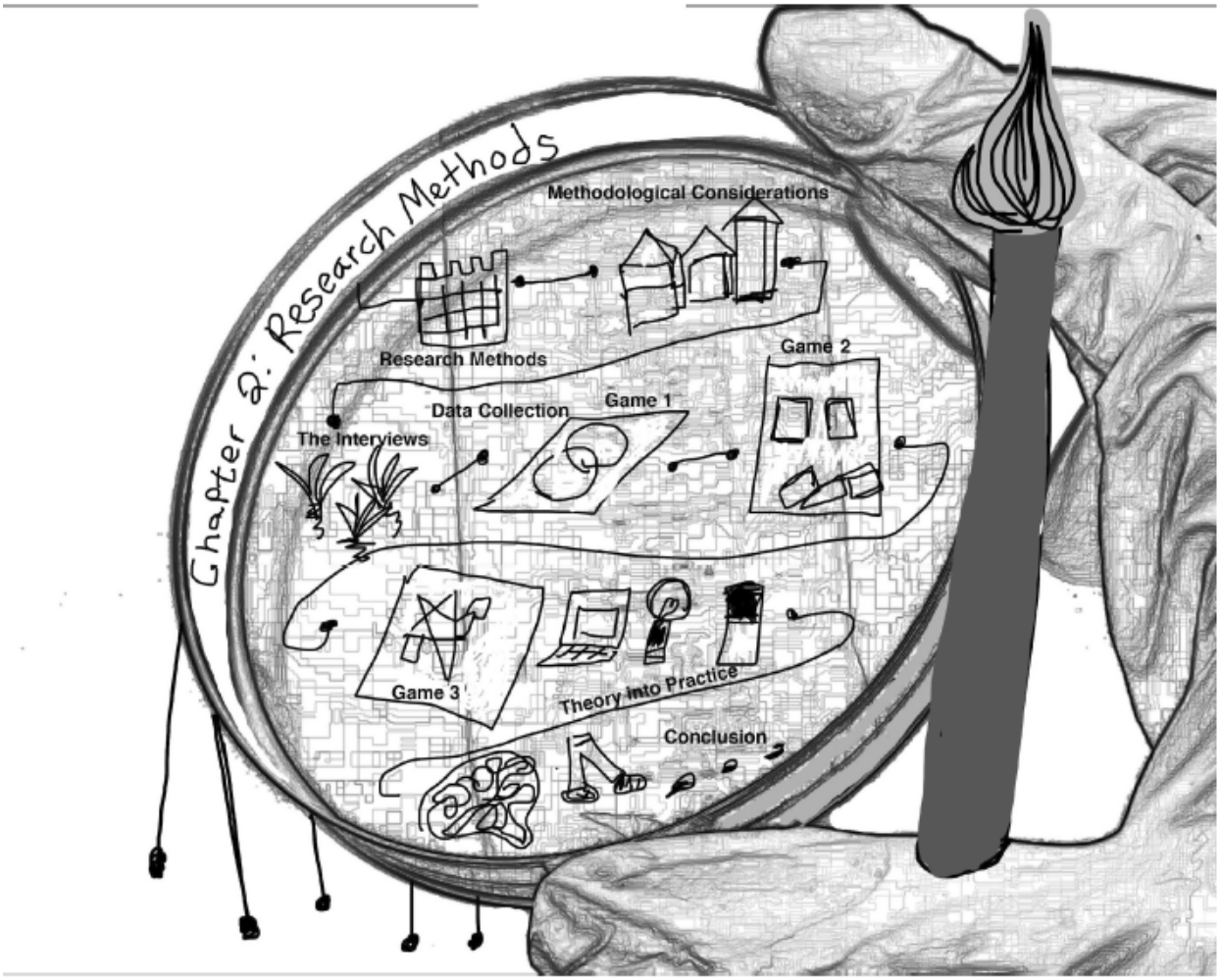
1.11 Conclusion

According to the perspectives of (Vagle, Hofsess, 2016) the goal of post-intentional phenomenological work is not simply to interpret the data, but to allow the data to continue to produce new meanings through artistic, iterative processes. The goal of this dissertation is to examine what happens to the student experience of learning art appreciation when a textbook is replaced by a game. In order to effectively uncover students' lived experience, phenomenological interviews and experiments with literature and methods where created. The scope of the progression and unfolding of these experiments was recorded with maps, diagrams, and illustrations. Each chapter builds on the unanswered questions from the one before it and seeks to employ a post-intentional phenomenological method which allows the research questions to show themselves and generate new insights into pedagogical and educational implications when games are used as centers of knowledge and exploration. Overall, the art appreciation honors course was an experiment in how using a game to learn could have positive (or negative) impact on the student experience of learning to appreciate art as well as learning in the space of a computer game.

CHAPTER 2

RESEARCH METHODS

Figure 2.1: Map of Chapter 2: Research Methods



2.1 Map of Chapter 2

Chapter 2 contains research methods such as drawing circuits, ink drawings, origami, projectors, and sequential games. The term games in this chapter refers to using content like literature reviews, scholarship, theories, theorists, terms in phenomenology, and terms in post-intentional phenomenology, to create generative process that can be played by the researcher. Some games were more generative or effective than others. But all were needed to get to a place

where I could allow new and creative meanings to emerge from my empirically gathered data. This close up map at the start of the chapter shows how the research began in the enclosure-like castle of various approaches to research methodology (a castle seemed appropriate because they are fortifications, often on hilltops which provide an overview of an area). The next area on the map shows a village, representing various voices in scholarship concerning methodology in art education research. Next, the interviews are represented as a wild garden, full of life and ready to be explored. Further on, Games 1-3 are on sheets of paper representing drafts of the initial research process. This led to putting theory into action by using experimental diagramming and visual renderings as well as card games. Finally, the mind of the researcher is walking away while drawing conclusions which led to further research and experimentation found in later chapters.

The overall feel of this map is pictographic. The doodles are reminiscent of how ideas are sketchy and become fleshed out as the process of research continues. The environment of this map is one of unfolding and journeying through this chapter's research methodologies, with threads reaching further down the page representing unanswered questions and the need to continue exploring the research questions that emerged.

This dissertation is rooted in a post-intentional phenomenological exploration of learning with a game in art appreciation. Variations and advances, as well as pedagogical methods are evaluated because the research itself has, over the course of the last year, been reinvented as a game that unfolds within the dissertation itself. As I will explore below in more detail, the game begins by distilling theories, authors, disciplines, and fields of study into terms and card decks as a post-intentional phenomenological approach to a literature review of various theoretical frameworks. These card decks of terms can then be shuffled and placed alongside each other to

create new combinations of terms and generate new connections between the underlying concepts being explored for this research. This method introduces contingency and unpredictability into the process of research, thus complicating notions of permanence and concreteness of terminology and scholarship. The result is what I call "research games and machines" that actively produce multiple iterations of meaning about what it means to experience game playing.

Phenomenology provided the perfect mindset and practice for gaining insight into learning using a game. Mark Vagle describes it as an encounter, a way of living, and a craft (Vagle, 2014). Vagle is suggesting that phenomenology encompasses encounters with media, art, people, and the world around us while more often than not, such encounters are invisible or transparent in everyday life. The phenomenologist attempts to "look at what we usually look through" (Sokolowski, 2000). The goal of phenomenology is to deeply examine what is around us, our experiences, people we meet, and all the minutiae that makes up life and experiences. The task of conducting phenomenological research relies on keeping an open mind and realizing that we can never know everything, but everything has profound importance for giving meaning to our lives. Phenomenology as a craft is not "one size fits all." Phenomenology evolves as the research folds, twists, and becomes more abstract and intertwined with disparate phenomena. Investigations and interviews must adapt in a flexible and open-ended way in order to allow an experience or encounter to express itself in the way that is most appropriate to it.

Furthering phenomenological methods, Vagle explained the concept of "post-intentional" phenomenology (Vagle, 2014). This approach is somewhat different from more or less traditional understandings of phenomenology. It takes up the idea of variants and of the changing nature of experience and combines these themes with postmodern notions drawn from Deleuze

and Guattari. The result is a form of phenomenology that weaves together social sciences, arts-based approaches (art making as research), and new materialism(s) (perspectives from objects) to demonstrate how research constantly changes the object of its analysis, how meaning is never stable but dynamic, and how the research itself is an act of invention (rather than objective analysis).

My research is a continuation and amalgamation of what Vagle describes as crafting a post-intentional phenomenological research approach, tailored to let the phenomenon of playing a game in art appreciation unfold in its own unique way. Implications would hopefully manifest themselves from multiple, unanticipated perspectives, and in turn, generate alternative meanings that are unanticipated and unexpected by the game participants and researcher. It is my contention that, for the researcher, the use of a game allows one to step outside of biases and preconceived notions. My roles as a researcher, art educator, and artist are suspended and I co-exist (reading or interacting with the data every day in some form) with the research and related questions to see what emerges, trying to see it and appreciate it from all possible angles. This is a new approach for art educators and a homage to the phenomenologists before me who strove to push the boundaries of phenomenological research.

2.2 Methodological Considerations: Background of Bracketing and Gaming

A central concern for all phenomenological research is the question of how to confront the biases of the researcher in order to maximize objectivity (or what phenomenologists would call "letting the phenomenon speak for itself" without personal biases getting in the way). Traditionally, phenomenologists utilized the practice of bracketing to suspend one's prejudices to discover the essence of a phenomenon. Bracketing or using the methods of the *epochè,* refers to the suspension of the natural everyday attitude and its biases (Van Manen, 2014). To understand

the origins of that term, the Greek word *epochè* means to stay far from or abstain. Husserl, the father of phenomenology, used it along with the mathematical notion of the brackets to come up with the idea that whatever happens within the brackets is separate from the operations outside of them (Van Manen, 2014).

Contemporary phenomenologists in the social sciences have refined the original notion of bracketing, redefining the practice in terms of "bridling" (Dahlberg, 2008). Bridling has three aspects. First, the researcher needs to restrain pre-understandings such as personal beliefs, ideologies, or personal theories that could hinder their openness to the phenomena at hand. Second, Dahlberg says to not make definite what is indefinite, meaning not to jump to conclusions and keep a sort of near distance which allows the phenomena to continue to emerge. Third, bridling points forward while bracketing typically points backwards (concerned with settled biases and prejudices). Bridling is focused on present interactions with phenomena and how we project into future possibilities. Vagle employs post-intentional bridling and proposes making a bridling journal, bridling statements, etc., in order to keep the bridling practice rooted in the present as an on-going part of the research (Vagle, 2014).

Moving into post-intentional phenomenology, practitioners became less concerned with the act of bracketing (to create "objective" or "disinterested" interpretations of meaning), focusing instead on how creative practices and tangents and iterative play can reveal and perhaps generate new features of a phenomenon (Vagle, 2014). As such, there is a move in phenomenological research toward embracing indeterminacy, creation (rather than description), and forms of aesthetic play as events able to destabilize the researcher (rather than merely bracketing beliefs). In the article "Entangling A Post-Reflexivity Through Post Intentional Phenomenology," Vagle and Hofsess illustrate this concept by "playing" with their data in an

innovative way through scrambling the structure of a dissertation. An example would be how Hofsess's dissertation is comprised of letters to the readers, rather than concrete chapters like a literature review of a singular methodology. The letters unfold and respond to each other over time, creating an interactive experience between the reader and the author. In this way, the act of play and, by extension gaming, becomes a way to decenter the self and put assumptions to the test as a method which differs from bracketing or bridling, but achieves similar ends (Vagle & Hofess, 2016).

This dissertation was inspired by the work of Hofsess about de-centering the structure of an academic dissertation into a style of game which uses mapping, diagraming, and illustrations to chronicle the unfolding of the research in an innovative way, rather than relying on the normative structure of the traditional dissertation. I decided to implement the notion of playing with data suggested by Vagle and Hofess and connect it with the concept of gaming. To do so, I employed the concept of the "open game" to loosely structure my research process. Jesper Juul uses the term "open games" to describe a scenario in which a player is free to do everything while a "closed game" is one in which a player only chooses within a preset number of options set forth by the designer (Juul, 2002). Open games have more explorative possibilities while closed games cap options and determine the path that players will follow.

The students in the Honors Art Appreciation course stated in interviews and surveys throughout the course that they enjoyed exploring cities and speaking with characters the most in the computer game we used in class. To situate this feedback, James Carse explains what these open spaces of exploration in the game James Carse's 1986 text Finite and Infinite Games describes the parameters of infinite and finite games. Infinite games, much like open games, have no point of beginning and no designated or preset ending point. This allows a player to

dwell in a game and progress at their own pace if they want. In contrast, finite games have a start and an end in the form of levels and systematic achievements and advancements like a closed game. This dissertation proposes the possibilities of what can be achieved with infinite games as a form of post-intentional phenomenological research. The following experiments show the evolution of trying to create an infinite and open game for producing novel combinations between theory and interview data.

2.3 The Interviews

The research interviews were conducted in the Spring of 2019 in one Honors Art Appreciation course that met face-to-face on Monday, Wednesday, and Friday for one hour. Out of 30 students, two were selected for phenomenological interviews because they were available after class ended to participate in the phenomenological interview process. The students were also selected because they were at opposite ends of the spectrum of gaming experience, according to their surveys from the first day of class. Student 1 was a female with little to no gaming experience. Student 2 was a male with lifelong gaming experience. I coached the students on how to go through a phenomenological interview and how to answer open-ended questions. I explained upfront that phenomenological interviews should help illuminate how it felt to play the game and use it as a part of class. Both students were interviewed on video for half an hour.

I prepared the students by explaining I would take notes, circle back to questions, and the goal was to get deeper into their experiences. Vagle states that an interview process that is unstructured (Vagle, 2014) should start with a clear understanding of the phenomenon being investigated and keep that as a goal. The students and I spoke about what they experienced in the game, in class, and what gaming meant to them. The conversations were recorded using audio,

video, and active note taking on my part. Each question was reframed if further insight was needed or revisited using alternative wording later in the interview. The interview sheet and transcribed interviews are in the appendix.

2.4 Data Collection

According to Vagle, "One must be willing to make a data-gathering plan and analysis plan and then, once carrying out that plan, be willing to make adjustments and explore new ways to open up the phenomenon" (Vagle, 2014). As introduced above, it became increasingly interesting to learn what the students experienced when using a game to learn in art appreciation. Vagle leaves room for practitioners to "create innovative ways" and new combinations of phenomenological research. This freedom allowed me to conduct my interviews conversationally, striving for a "deep dive" into what students' personal experiences were in my courses. Phenomenological interviews allow for questions to be revisited, restated, and circled back to, unlike a typical interview where you move from question to question, usually in a set order. The phenomenological interview feels casual and conversational, allowing for more in-depth conversation.

Once the interviews concluded, I used an experimental approach to sort through and closely examine the data. In this way, the data was not "coded" for meanings so much as pieces or chits in a board game, setting the gaming process in motion. The rationale for these games and experiments was to creatively approach the content of the interviews and use my background as an artist to play with and analyze the interviews. I created games and experiments that would provide ways to access new meanings though novel combinations of data, contingent encounters, and creative acts of generation. Dahlberg, Dahlberg, and Nystrom speak about phenomenological openness as incorporating techniques found in everyday life, like interviews, reading,

observations, written descriptions, and artistic forms such as painting and drawing (Dahlberg, 1994). The goal of using games as a post-intentional phenomenological research method was to maximize openness to the events of meaning creation without being limited by my own interpretive biases or assumptions about learning, gaming or art appreciation. The resulting games generated possibilities for me in a way that decentered me a researcher and allowed the phenomenon of gaming to show itself in increasingly diverse and unexpected ways.

Before showing the examples of the games unfolding and being played, it is important to establish what qualifies as "success" when playing these games. Because they are modeled after Carse's infinite style of game play, there is no concrete winning or losing. The goal is not to "level up" or advance, but to find an "Aha" moment or become awe struck by a new insight that had not previously occurred to me. This could manifest as a combination of words, phrases, concepts, or more (Cares, 1986). Once that occurred, I could draw new conclusions and assess future implications.

These games are unique because they offer an arts-based approach that decenters the subject, which is key in post-intentional phenomenology. When playing the games, the goal is to create surprises or moments of awe and wonder for players (which then can generate new knowledge). "Success" in this sense can be defined as the production of unanticipated encounters with the data. The game should, when it is functioning, produce encounters between theory and data that disrupt the researcher's powers of prediction, control over meaning, and provide shock or wonder at what is possible. The researcher's drive to gain unanticipated connections between concepts, terms, and contexts allows games to have multiple iterations or versions.

2.5 Game 1

The first game concerns the scrambling of various theoretical concepts to produce novel

combinations that could not exist before playing the game itself. This is, again, a way of bridling the subject in post-intentional phenomenological research so that the theoretical frameworks are emergent, contingent, and surprising (rather than predetermined and predictable). To explain why the combining of terms to generate new terms is important, referencing *Difference and Repetition* by Deleuze, is essential. In his chapter "Image and Thought," Deleuze describes mental faculties as operations of thought. He goes on to say that each faculty must be "borne to the extreme point of its dissolution" (p.143) where it is forced to grasp the ungraspable. Applied to research methods, the researcher needs to destroy or dissolve the obvious surface level relationships of data and results, mix things up to actively produce plurality of possible meaning combinations beyond good or common sense. That means that using a game to play with the data is to step into an infinite loop of questions and answers which go beyond common assumptions about what good data should do or reveal. In this way, the researchers' faculties are opened beyond presuppositions and begin to dwell within the research, allowing the data and questions to drive the next directions the researcher will pursue.

The first round of visualizing relationships between disparate theoretical concepts began with Venn diagrams. I did this in several art education and introductory level courses as a student. Venn diagrams are a staple for comparing and contrasting ideas at almost every grade level, extending into higher education and the practice of note taking, which is why it felt like it was an appropriate starting point for my research.

Venn diagrams visually organized, compared, and contrasted topics; however, they felt incomplete or not in-depth enough for all the terminology I wanted to ascribe meaning to. The resulting diagrams were too predictable, contained, and stable. For example, in Figure 2.2, I was able to map the relationship between key themes in gaming literature such augmented realities

and ontological considerations of the game. This was contrasted with key theorists in the history of phenomenology, such as Heidegger and Merleau-Ponty. The connection point between the two was a multifaceted appreciation for lived, embodied experience that involves actual bodies, equipment, and embedded situations of meaning. Yet this connection was largely predictable. The Venn diagram only allowed me to organize and map what I already, intuitively knew to be the case instead of producing something new. There was a tension between organization of preexisting notions and the production of new content, and needs of the game and of art creation pushing beyond mere organization

Heuristically, Venn diagrams generated novel ways of understanding connections and combinations of concepts, but I was searching for something a little more surprising. Thus, I started to play with and alter the Venn diagram, which multiplied into concentric circles with a clear overlay to allow for concepts to be interchanged and slipped in creating new terms and relationships as seen below, one can notice how the Venn diagrams evolve beyond two to three circles and additional steps:

Figure 2.2: Gaming and Phenomenology Venn-Diagram

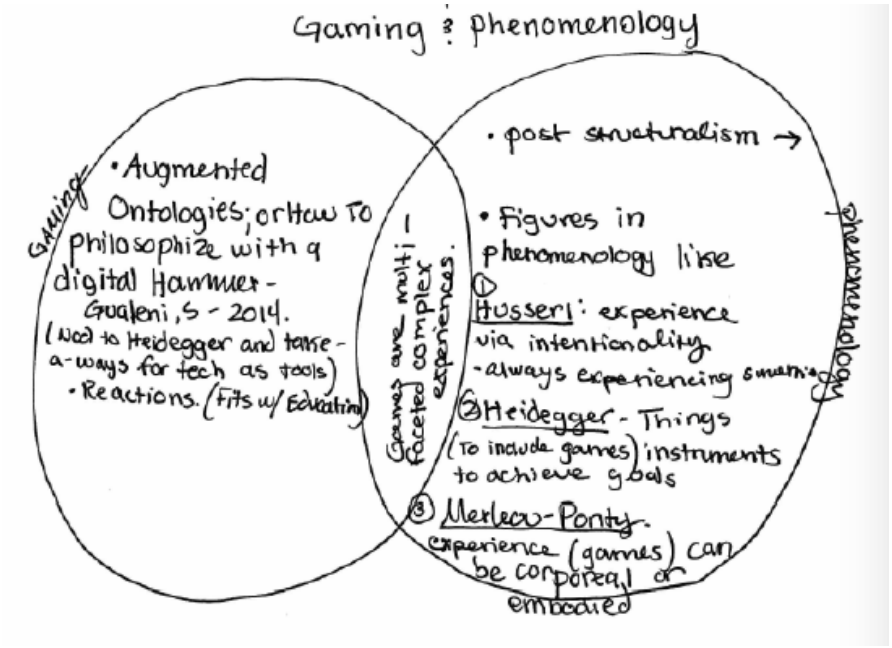


Figure 2.3: Gaming and Post-Phenomenology Venn-Diagram

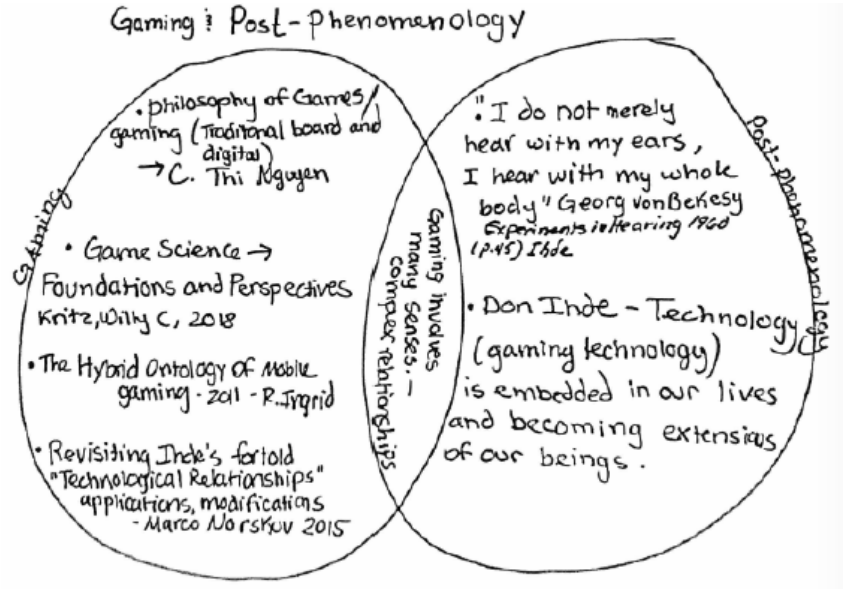


Figure 2.4: Generative Venn-Diagram

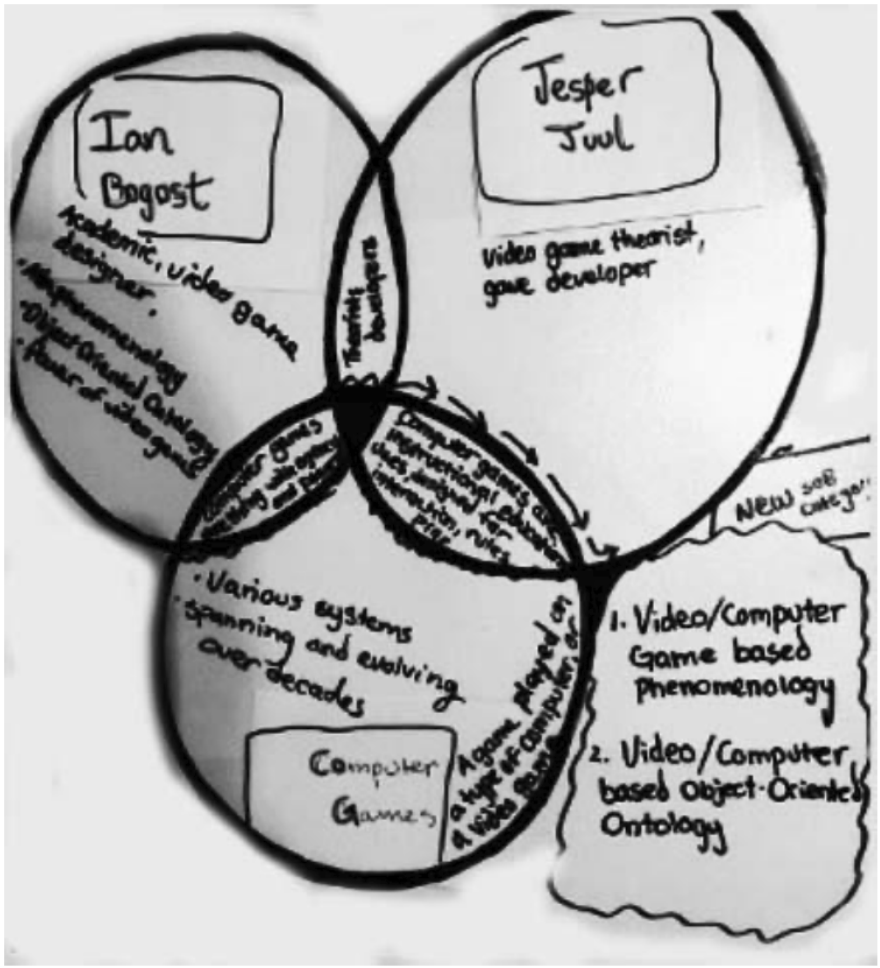
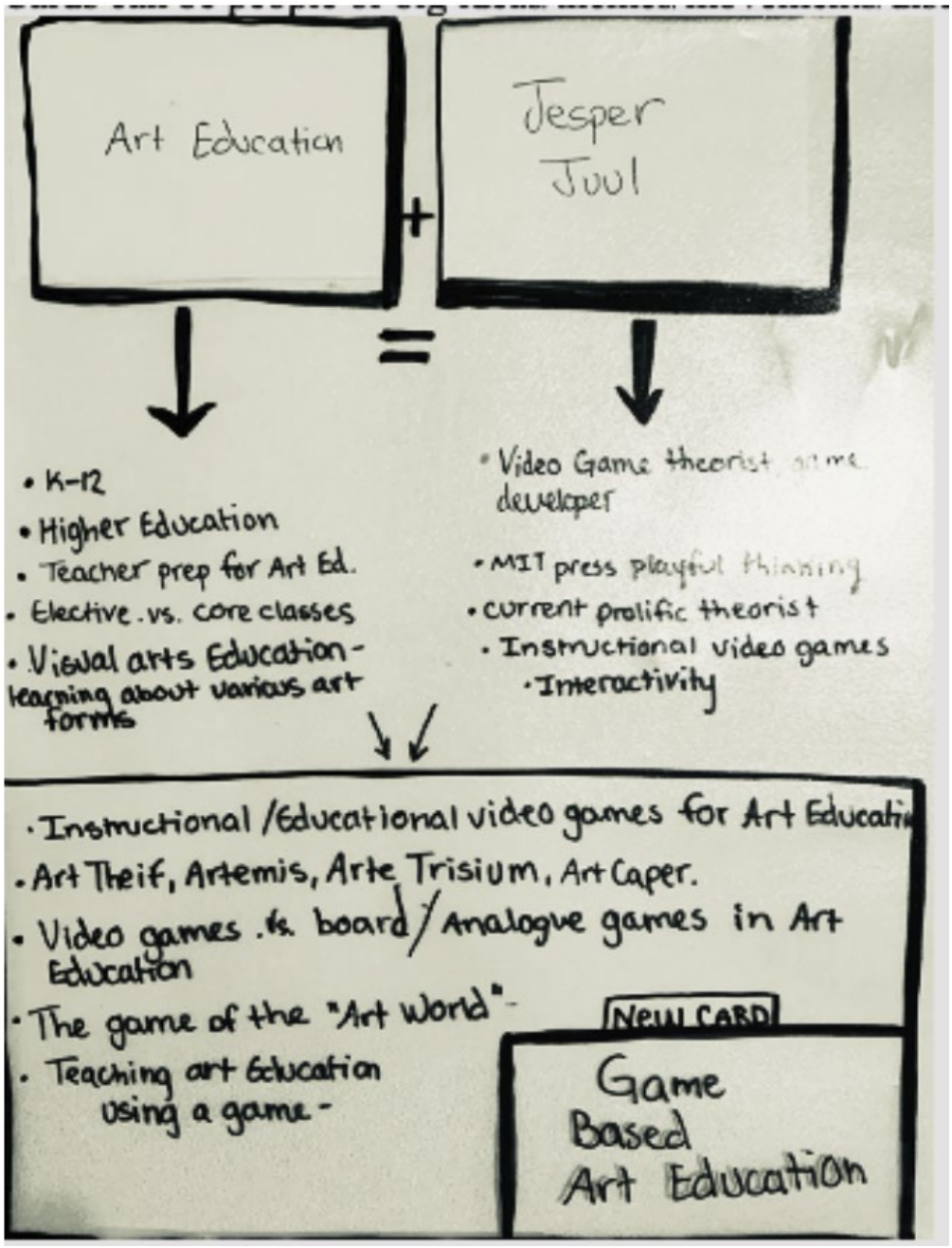


Figure 2.5: Generating New Cards for Terminology Game Deck



2.6 Effectiveness of Game 1

Game 1 marks a moment of beginning for tackling the complexity of the research questions. This first game iteration tried to discover moments of new knowledge through a simple card game, where random terms were used from a list comprised of key words and

phrases taken from my interviews. They were organized either as Venn diagrams or cards. This game version was successful in the sense that it provided the research a launch pad, but the Venn diagrams failed to show insightful correlations in the wider scope of the research because they simply compared and contrasted terminology. The card games in Game 1 were effective at generating new combinations of words, but there was still a looming sense that more needed to be done to unsettle the faculties and push the games beyond common and good recognition. This tension in the research led to the development of further games.

2.7 Game 2

After creating over thirty Venn diagrams in Game 1, Game 2 was created. Game 2 was an instinctual evolution which involved organizing terms in one column in a chart with associated abbreviations (green) and doing the same for key people (blue). This allowed for more than 2 or 3 terms to be analyzed at one time, adding complexity (which expands the faculties of the researcher) and multiple new dimensions to the Venn diagram.

Table 2.1: Terminology Cards

Term	Abbreviation	People	Abbreviation
Phenomenology	Ph	John Dewey	JD
Post-phenomenology	P-ph	Diana Coole	DC
Post structuralism	Ps	Paul Ricoeur	PR
Post modernism	Pm	Heidegger	He
Technology	T	Husserl	Hu
Games	Gs	Linda Finlay	LF
Play	P	Mark Vagle	MV
Gaming	Gm	Max Van Manen	MvM
Game Theory	Gt	Amedeo Giorgi	AG
Video Games	Vg	Mark T. Bevan	MB
Micro Phenomenology	McPh	Herbert Spiegelberg	HS
Computer Games	Cg	Merleau-Ponty	MP
Social Sciences	Ss	Claire Petitmengin	CP
Hard Sciences	Hs	Ian Bogost	IB
New materialism	Nm	Don Ihde	DI

Term	Abbreviation	People	Abbreviation
Object Oriented Ontology	Ooo	Huzinga	H
Philosophy	Pi	Sean Justice	SJ
Art Education	Ae	Thi Nguyen	TN
Speculative phenomenology	SPh	Timo Gnams	TG
Video/Computer Based Phenomenology	VCbP	Karen Barad	KB
Video/Computer Game based Art Education	VCbAE	Salen Zimmerman	SZ
Art Appreciation	AA	Zimmerman	Zz
Phenomenological Interviews	Pi		
Arts Based Research	ABR		
Post Intentional Phenomenology	PIP		
This Dissertation's Research	Dr		
Philosophy of Games	POG		

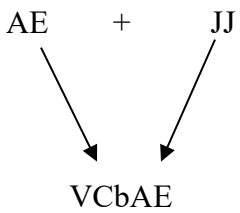
The result was two decks of cards, one deck of terms and abbreviations (green) and one deck of people and abbreviations (blue). These could be randomly drawn and laid next to each other to generate new term combinations. For example, possible combinations of Ph cards could look like:

> Ph + P-Ph, Ph + Ps, Ps + Pm, Ph + T, Ph + Gs, Ph + P, Ph + Gm, Ph + Gt, Ph + Vg, Ph+, Bg, Ph + Cg, Ph + Ss, Ph + Hs, Ph + Nm, Ph + Ooo, Ph + Pi, Ph + Ae.

I then attempted to construct visual diagrams of the connectedness between terms. A possible diagram/formula of the above card game could look like:

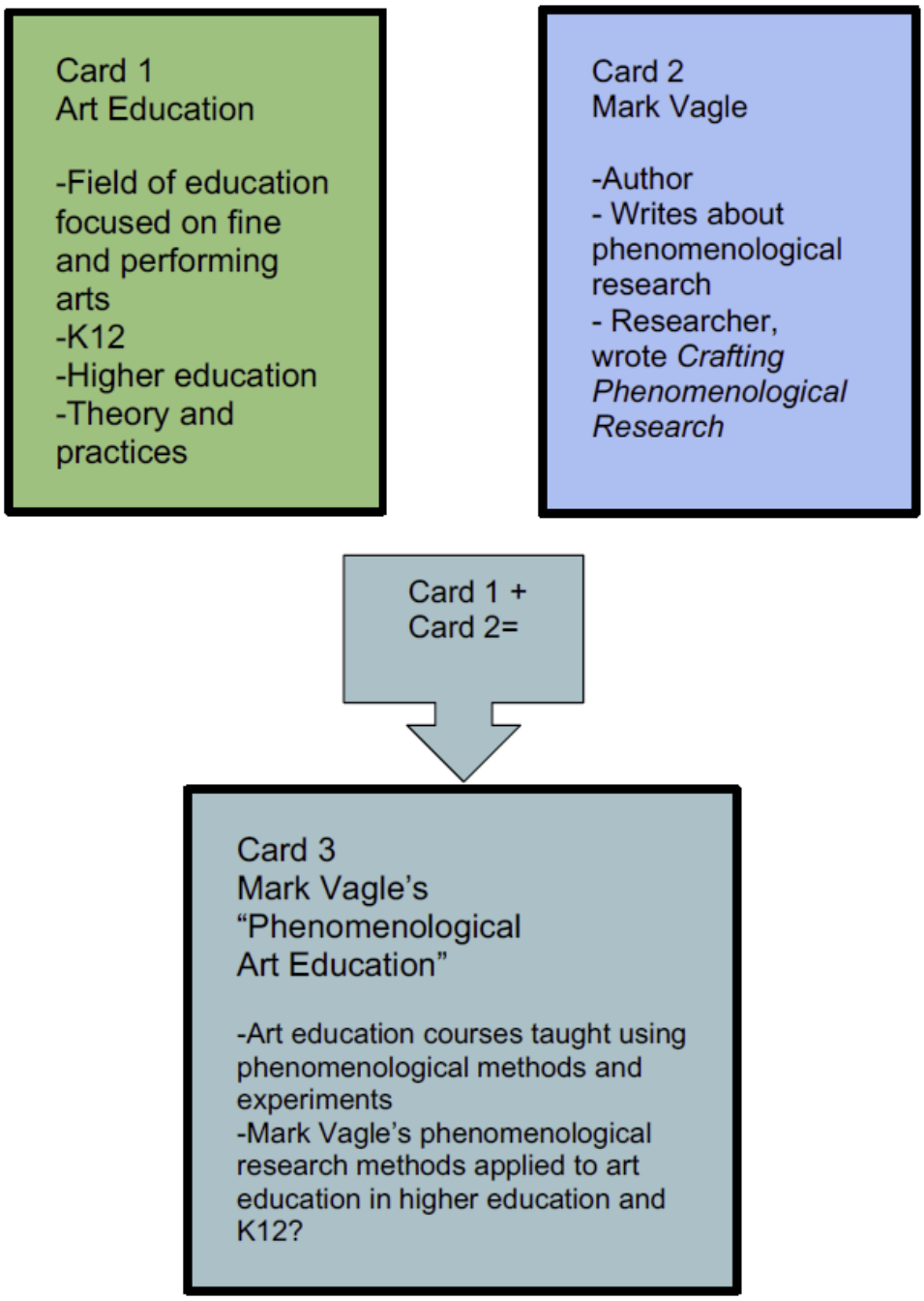
AE + JJ = VCbAE

OR



(Art Education) + (Jesper Juul) = Video/Computer Based Art Education (VCbAE)

Figure 2.6: Effectiveness of Game 2



2.8 Effectiveness of Game 2

The overall effectiveness of Game 2 can be summarized with Figure 2.6. Specifically, when a card was drawn from one deck (green) and placed next to a card drawn from the other

deck (blue), an additional card, a third card resulted which was a combination of the two cards previously drawn whose aim was to produce some form of unanticipated intersectionality or connectedness between the two original cards. However, most of the new cards produced were not successful because they lacked specificity or new insights. For example, in Table 2.1, the formulaic approach to distilling terms into abbreviations, for use in a card deck was generative, because it addressed both terminology as well as scholarship in the field, this evolved to another version of a card game which in turn created new cards. This was a moment of tension where producing new content contrasted with recursiveness and productivity. As a researcher it was difficult to determine when enough was reached to move forward, in terms of moments of epiphany and insight. They became interesting possibilities but got me no closer to what Deleuze would call an expansion (or explosion) of my faculties. In other words, the results were too "recognizable" and seemingly predictable to achieve the kind of radical displacement of subjectivity and surprise that the research game machine was supposed to induce.

As this example shows, Card 3 is still orbiting around these surface level terms and fails to make insightful new connections. Mark Vagle does not write specifically about art education, so what remains is speculation about what his opinions or theories regarding art education would be. Therefore, a new game was needed to attempt to refine further connections and insights that might produce the kind of explosion that I was hoping to achieve. I appreciate this first iteration of the research games, but I had a "gut feeling" as well as a desire to see what else (if anything) could emerge from developing and playing games further.

The goal of this game iteration was to discover how a game could lift us out of our own preconceptions to reveal/create new insights. "Evidence" that the game is "working" is that it produces novel and/or unanticipated, shocking connections that show us something different than

what was expected. As mentioned previously, this game iteration would qualify as not successful because it did not result in that moment of awe present when one sees an unanticipated connection emerge.

All of this creates a folding or convergence of knowledge that can be better appreciated by play, which is the rationale for the evolutions of the subsequent research games and machines. The experiments and related drawings displayed below take Deleuze's ideas in *Difference and Repetition* from theory into practice. He argues that a "pedagogy of sense" (Deleuze, 1994) is needed to destabilize common and good sense and unleash creative alternatives. Deleuze uses the example of pharmacodynamic experiences like vertigo as a metaphor for this pedagogy, meaning that in one moment you are stable, but in the next moment a new, disoriented self emerges when experiencing vertigo.

Incorporating this idea into the research for this dissertation has meant that research can be limited to student interviews (the norm), but it can also be extended by applying phenomenological and speculative experiments to understand the data. Both approaches are valid. However, the game approach pushes the research itself to become disoriented and deconstructed, allowing new ideas to reveal themselves which may not have been noticeable at first. The following images (Figs. 2.7, 2.8, & 2.9) are examples of the process of vertigo which aims to construct new connections and ideas by destabilizing what is expected of "theory" and "theoretical coherence" in social science research. This process is based on Deleuze's quote "do not explicate oneself too much" (Deleuze, 1994). The researcher should explain some things but not everything and leave room for unexpected possibilities. The following evolutions of drawings, forms, and machines are examples of leaving room for the unexpected so that the research can both move forward and evolve in unexpected ways.

Figure 2.7: Geometric Rendering Game 2

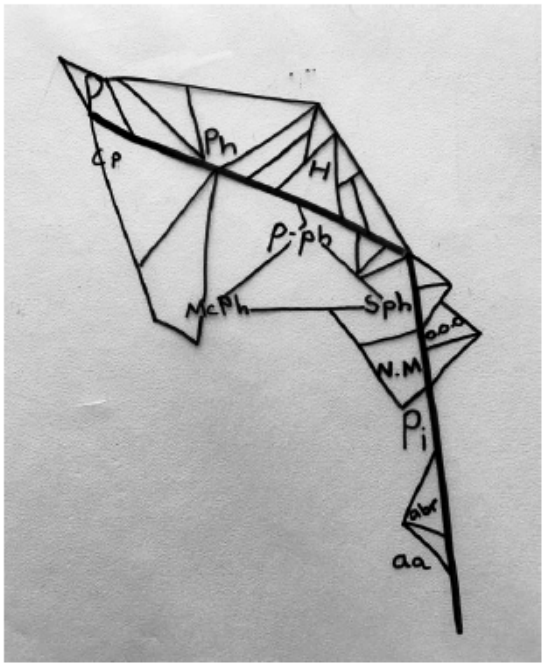


Figure 2.8: Further Geometric Rendering of Game 2

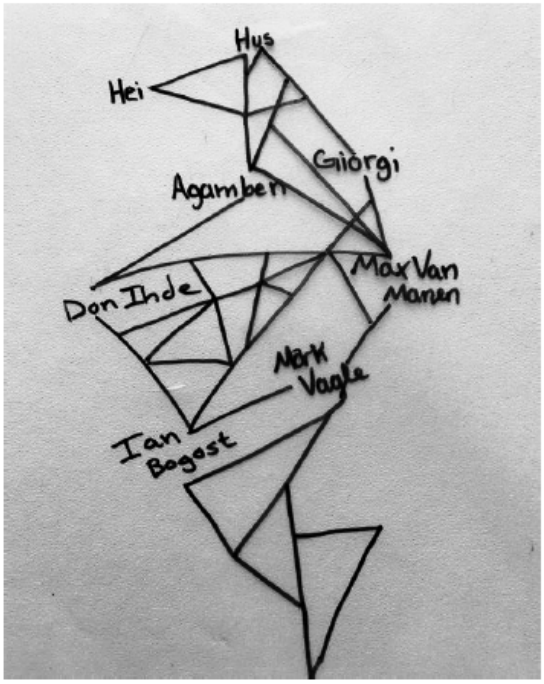
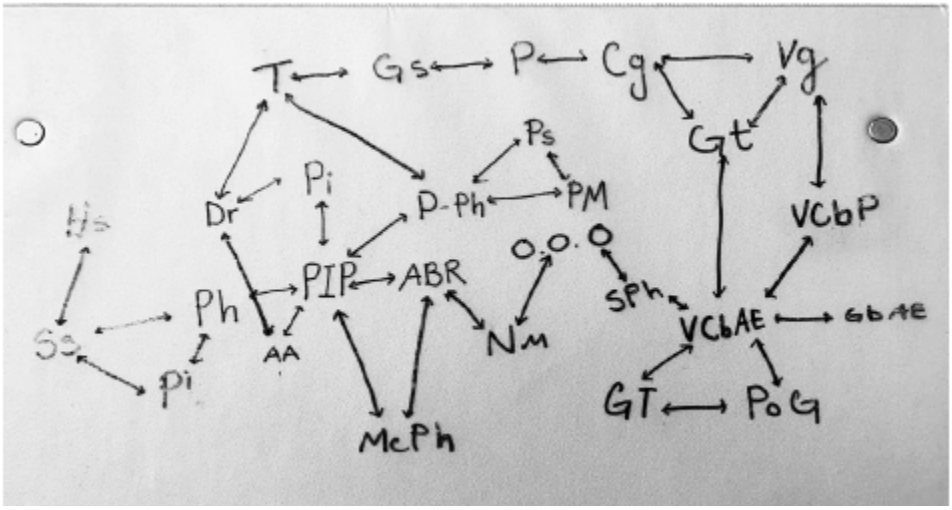


Figure 2.9: Relational Elements and Terminology



2.9 Furthering Game 2

Below are some experiments to decenter and create a sense of vertigo between terms. One criterion for success is allowing the terms to connect in such a way that vertigo induces estrangement by making the concepts and the data appear unfamiliar or strange to the researcher

thus enabling the generation of new iterations. Game 2 attempted to scramble and weave together concepts in a chaotic and geometric rendering. It is possible that these forms will allow for a new vision and illustration of relationships between terms from the original decks of cards.

The result of the geometric renderings was the same as with the card decks. In both games, the terms related to each other and combined in predictable ways. Partially this is because the game relied too heavily on my own, intuitive sense of connections between these terms, names, and theories, thus the game inadvertently maintained the privilege of my own, subjective viewpoint (rather than decentering it by injecting a certain amount of productive chaos into the mix). No new knowledge and no sense of vertigo emerged. Suffice to say that a new approach was needed to effectively allow the terms to connect, correlate, and combine in a fashion that could not be controlled by the researcher or subject. I wanted to introduce more chance and unpredictability which would allow the phenomenon I was researching to reveal itself. The success of these games could be described as positive failures because the terms had deeper correlations and connections that wanted to be revealed. I just had to find a way to create a game that would allow that moment to manifest itself.

2.10 Game 3

This game builds upon the Games 1 and 2 by allowing the game to take on a new three-dimensional, playful form. I was inspired by the aesthetic and folding origami and wanted to experiment with constructing compositions of terms identified in Games 1 and 2 to see if new relationships and knowledge was produced.

2.11 Protocol for Game 3

Create a list of terms from theoretical texts:

1. Distill ideas from literature review into phrases or single words.

2. Write them onto triangular cut outs.

3. Assemble all the triangles into 3D forms using glue.

4. Repeat making forms until there are multiple forms.

5. Cast or throw the terms onto a mat or board.

6. Hold a projector above the board containing the forms and project digital backgrounds such as topography and heat maps onto them.

7. Write a phenomenological reflection about the connections between terms to see what new combinations and meanings are generated.

Figure 2.10: Game 3, Steps 1-3

Figure 2.11: Game 3, Steps 4-6

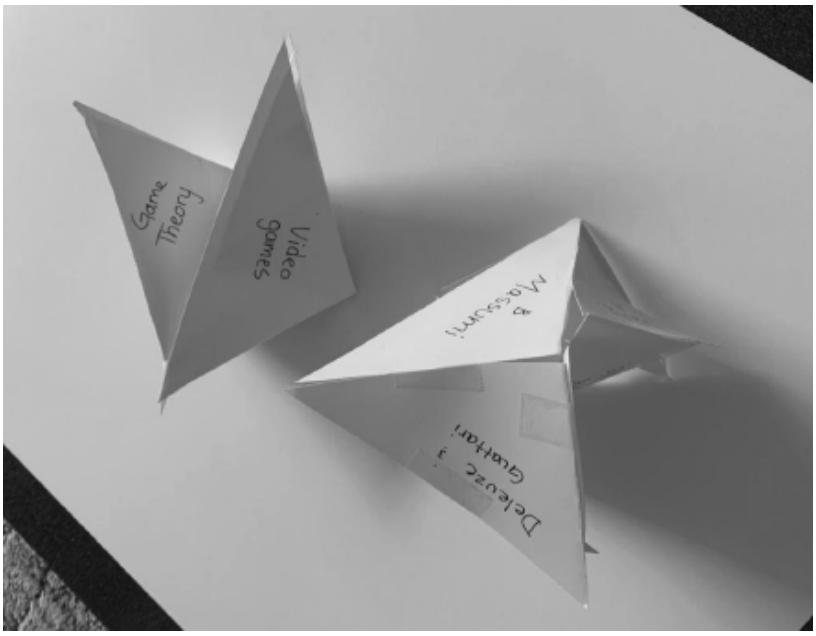


Figure 2.12: Game 3, Step 6, Variant 1

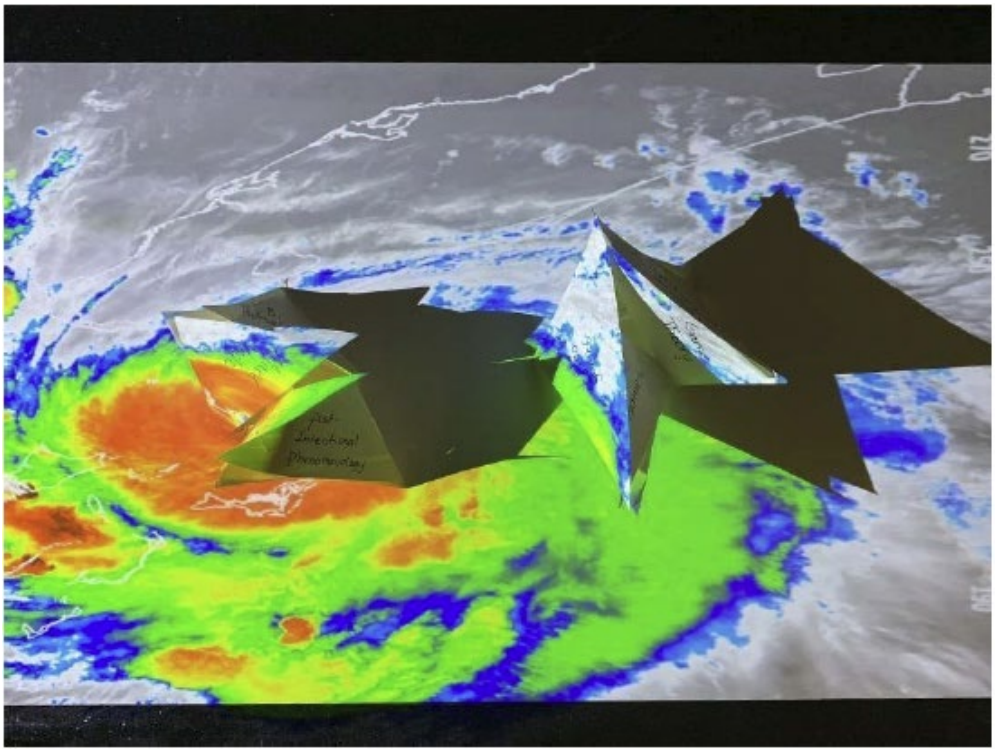


Figure 2.13: Game 3, Step 6, Variant 2

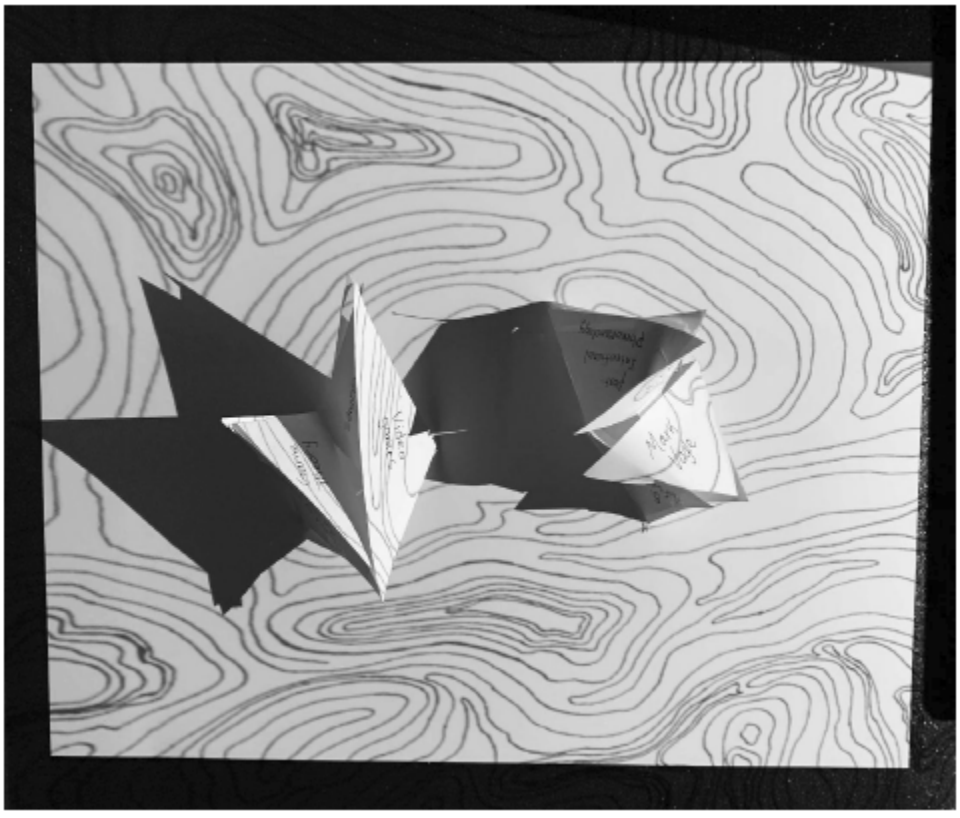
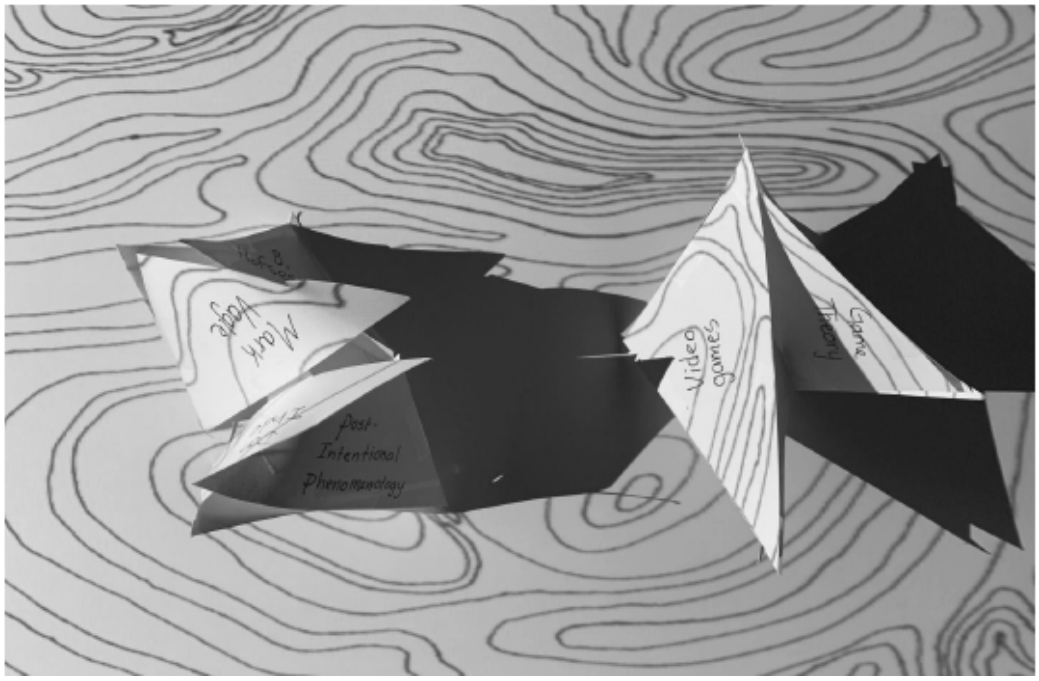


Figure 2.14: Game 3, Step 6, Variant 3



2.12 Game 3 Process

Phenomenological Reflection (Step 7): From the varied projections overlaid on the forms, I noticed areas of light and shadow. Several terms appeared as fragments (Figs, 2.12 & 2.13) and specifically the form with the terms “game,” “video game,” and “Mark Vagle” emerged, appearing closely connected with each other. This combination caused me to think about what Vagle’s writing on crafting phenomenological research and video games had in common. What if crafting and playing are similar? What if phenomenology is like designing a video game? These questions complemented what I thought about how Vagle discussed alternative processes in phenomenology like a play, drama, or art making. Video games can be an active form of theatre and involve the player in narrative. However, I felt more information was needed or more forms were needed to deepen this connection. Therefore, I moved forward with designing a new game.

The idea for the above game is based on James C. Carse’s 1986 text, *Finite and Infinite*

Games: A Vision of Life as Play and Possibility. In this key text, "finite" games are played for the express purpose of winning and have a start and an end of a game whereas an "infinite" game is played for the sake of playing. As argued earlier, according to Carse, the "infinite" is unbounded by time and does not have a predetermined start or end. The "infinite" game can have an infinite number of iterations, versions, or worlds. This links expressly to Deleuze's notions of virtuality and furthers his idea of "perplication" (Deleuze, 1969). For Deleuze, perplication means combining unlike terms to create a new term (Deleuze, 1990). In other words, all terms of concepts can fold into one another or be spliced together to produce a new combination (sometimes nonsensical). I have invented the term "perplification," adding the "f" to explain how the terms *fold* into each other as they are constructed, both physically and metaphorically. For Carse, players do not seek power or to become powerful, but rather, seek new knowledge and play itself. This is in line with the design of a game (a zoetrope) which is further elaborated upon in Chapter 4 of this dissertation.

Carse goes as far as to describe school (and by extension education) as a "species of finite play that bestow ranked awards to those who earn degrees" (Carse, 1986). These graduates are in competition yet again for professional degrees, accolades, and professional advancement. This extends into the study of fine arts, which has its own hierarchical system of achievements which build on each other. The game I am proposing breaks that mold or form by believing that knowledge and understanding of an experience or topic is nonlinear and perhaps nonhierarchical. Perhaps knowledge is infinite, and our experience of that knowledge is based on just one iteration or understanding at the moment. There is a multiplicity of ways to understand and experience anything, no one idea or term is more or less valid than another.

That is why the game I have proposed places equal importance on all the terms and forms

generated by combining them. The mystery of what combinations these forms will take and, what I believe to be important, will contrast with the terms and combine and fold together to create new connections and new knowledge. This act of "perplification" or the folding together of existing knowledge to create new ideas, understandings and connections further builds on Deleuze's notion of "perplication." It further coincides with embracing these experiments as an educational intervention within our existing culture of "maze-like" objectives and assessment driven curriculum. It creates a more meandering dwelling like sense of study in an educational labyrinth of cross-curricular discovery (Lewis, T. & Alirezabeig, S. 2018).

This creative process constructs a theoretical "framework" by applying a "Deleuzian" approach of folding together knowledge. I attempted to use paper with terms written and folded up, then unfolded to see if there were any notable peaks and/or areas of importance that emerged between terms. However, the terms all seemed to be "crinkled" equally and there were not distinctive patterns or areas of importance that emerged. This led me to explore interactive possibilities like the 3D augmented reality sandbox created at UC Davis. In this project which one can build, a projector illuminates a sandbox and a software program allows the colors of the sand to change in correlation to the topography "(https://arsandbox.ucdavis.edu/)" To create an analogue version of the 3D augmented reality sandbox, I created a hybrid approach which synthesized the positive gains from my last attempts at game design with the handmade and digital realms. I created forms, like I had previously. These forms are like runes or dice and meant to be cast on a board. The board itself is purposefully blank. I wanted the board to represent infinite possibilities that can be tied into the digital realm. Giorgio Agamben was referenced in article by Lewis and Alirezabeigi (Lewis, Alirezabeigi, 2018) and referred to the blank page as full of relationships between interwoven fibers and, even though it looks blank

from afar, it is a tightly woven multitude of strands. The blank screen and the blank page both represent the infinite game and allowed my research to play with its own content.

The best attribute of using the blank board is a second set of infinite possibilities of overlays or "skins." Skin is a term in gaming that represents appearances or accessory enhancements based on gameplay achievements. Skins are meant to correlate with some form of achievement (in this case, knowledge) by the viewer. In this way, the board can provide a type of map or skin that is overlaid to enhance the work being done by the forms.

Video games are interactive software merged with controls of some kind to play a finite game as Carse would classify it, to win or to achieve something within a set of parameters. I believe that Vagle would apply his phenomenological step-by-step reduction methodology to video games and by recording his interactions and repeating playing alone or with others to see what the phenomenon of playing video games is like.

2.13 Theory into Practice

There is a relationship between the game, the player, and the dice (Deleuze, 1990) which is elaborated in *The Logic of Sense.* Deleuze recounts the story of Nietzsche's liberation from various schools of philosophical thought. Once liberated from Schoperhauer and Wagner, Nietzsche created a world he coined as Dionysian because of unbounded energy and a will to power mingling in a mix of impersonal and pre-individual singularities. This view amounts to a nomadism (Deleuze, 1969) where singularities are not stuck in a fixed individuality of the infinite nor isolated or confined to the boundaries of a finite subject. This world of Nietzsche's is neither individual nor personal, but vivid and leaping from one singularity to another. Deleuze states that this world is "casting always the dice belonging to the same cast, always fragmented and formed again in each throw (Deleuze, 1969)." Suffice to say, this world is both the event

and the result, a perpetual state of knowledge and seeking. Here, sense and nonsense exist in harmony rather than opposition. Deleuze concludes that this world is not a predicate or a property, but rather, an event. This event is recreated in the dissertational game.

Nietzsche's approach to knowledge formation and awareness becomes a dance between depth, shadows, monsters, and boundless skies, the corporal body, and the enduring state of dreams, memory, and experience. Here, the link to the game becomes more than the player and the dice. The game strives to create new knowledge and exists in a state of perpetual generation. The dissertation game is a state, much like Nietzsche's, where one traces the contours of all known connections and dances in the shadows and peaks as they emerge. Not attempting to draw solid empirical evidence from one connection or data set more than another but, rather, reveling in the wholeness as one "studies" the labyrinth which consists of gaming, games, phenomenological interviews, student experiences, the experience of the game, and the self as it interacts with the game.

2.14 Conclusion

Games 1-3 led the research in a fascinating series of twists and turns trying to illustrate how the terminology and scholarship that inspired the research could be combined in multiple ways to generate novel variants for theoretical frameworks. I struggled with how, as a researcher, I could design and play a game that would allow me to look at well-known scholars, theorists, and terminology from new angles. The first 2 versions of the games needed to be further expanded. By drawing on my artistic sensibilities and interests, I was able to push forward with origami-like illustrations and diagrams, thus discovering how added complexity and moving parts produced increasing states of creative generation that had potential to shock. One such moment of shock is the revelation that one could think of post-intentional phenomenology as a

kind of virtual game and the researcher as a game player. Overall, all of the games were essential to understanding how using a game in research can serve to de-center and re-orient the researcher. These games were successful in that respect. However, I wanted to continue pushing the boundaries of thinking about how these terms and concepts related back to the lived experience of my students, who were asked to participate in a similar task and learn with a game.

CHAPTER 3

PHENOMENOLOGICAL INTERVIEWS AND GENERATIVE DATA GROUPINGS

Figure 3.1: Map of Chapter 3

3.1 Map of Chapter 3

Chapter 3 represents a shift to beginning to explore the phenomenological interviews of two students from my Honors Art Appreciation course. One student (Student 1) had no gaming experience prior to the art appreciation course. The second student (Student 2) was a self-proclaimed gaming expert. These two students volunteered to do the phenomenological interviews after the course concluded. More students wanted to participate, but many were leaving for summer break right after the final exam for the course.

Figure 3.1 shows an illustration of the two students sharing the interview protocol and

reliving what they experienced in the course. The students were the impetus for all the data collected and their words and phrases were the inspiration for experiments that strived to dive deeper into their unique encounters using a game to learn about art appreciation. The glove has sketched renderings of faces, which represent the researcher's attention focusing on the lived experience (or the way the students felt) about the course and recalling all the details those two students shared. The visual allusion is to the researcher who is now not only conducting interviews but listening to their voices and trying to discern what impact that might have on the direction the research may take later on.

3.2 Creating Experiments to Understand Interview Data

In the last chapter, I produced three games. They were composed of theoretical terms and concepts folded into one another. These forms were Venn diagrams, card games, and origami like structures with projected overlays. Together these formed a theoretical energy generator to power my final games. In this chapter, I will continue to produce more component parts for the research game. This time I will do so with the data from student interviews to generate a data circuit that can be plugged into the theoretical generator in the form of a penultimate game. By making games, I am conducting research about how students felt during this class. To do this, I used drawing, mapping and diagramming as a way to incorporate my art making background as a way to code and understand the information from the interviews.

Once I conducted the phenomenological student interviews, I was left with video documentation and pages of notes and transcriptions. I wanted to get beneath the surface of these interviews and go beyond my own experience as an interviewer and researcher. I devised a way to create correlation diagrams which resemble bubble maps of common terms and their most frequently used phrases. If I could look at the interviews from the angle of grouping and

categorization (using bubble maps or other ways of grouping like terms), perhaps prominent themes and important points would clearly emerge. I then began to create a series of maps, diagrams, and illustrations to try to uncover the commonality between the two students' lived experience when learning about art appreciation with a game.

Figure 3.2: Data Play Relational Thematic Terms

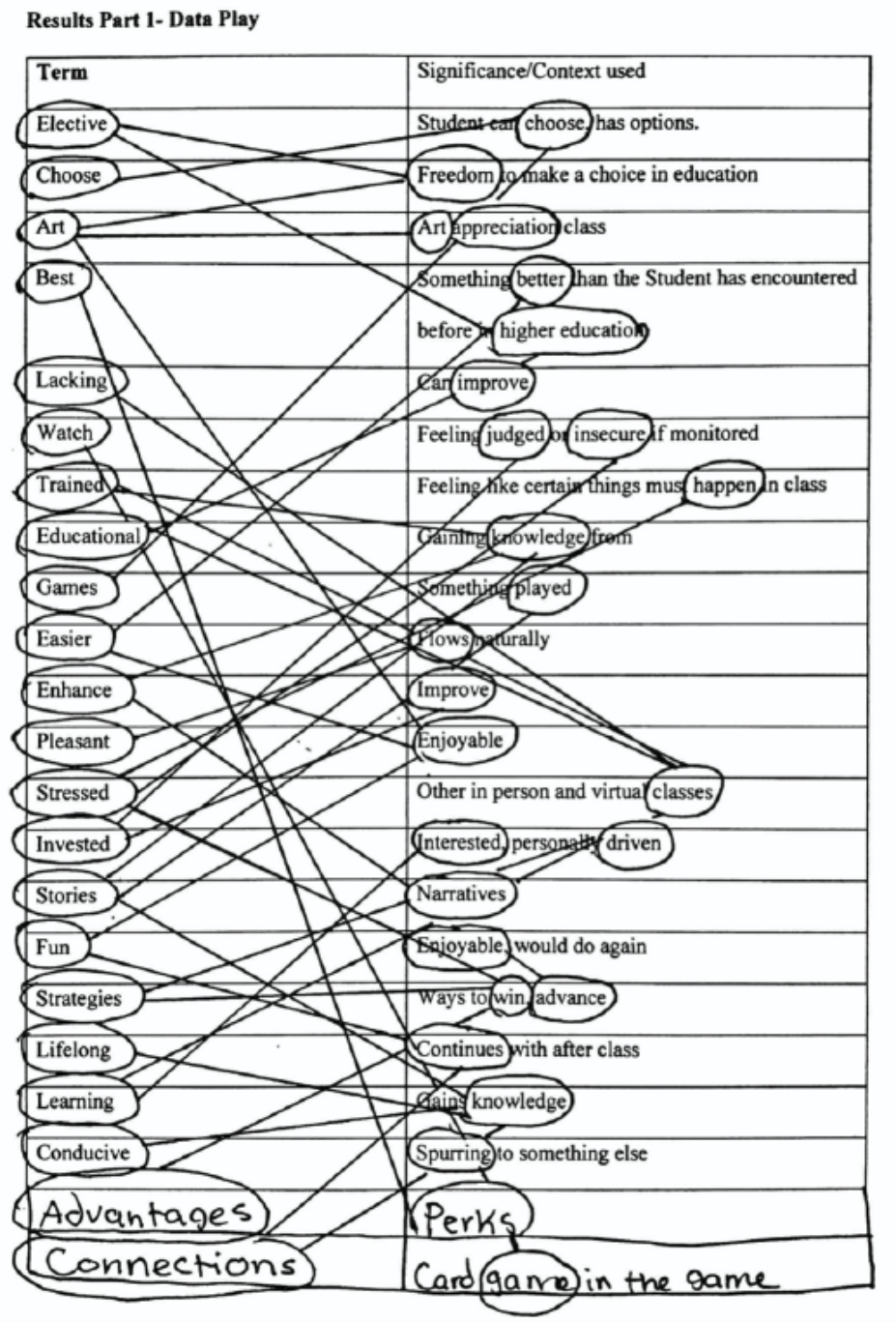
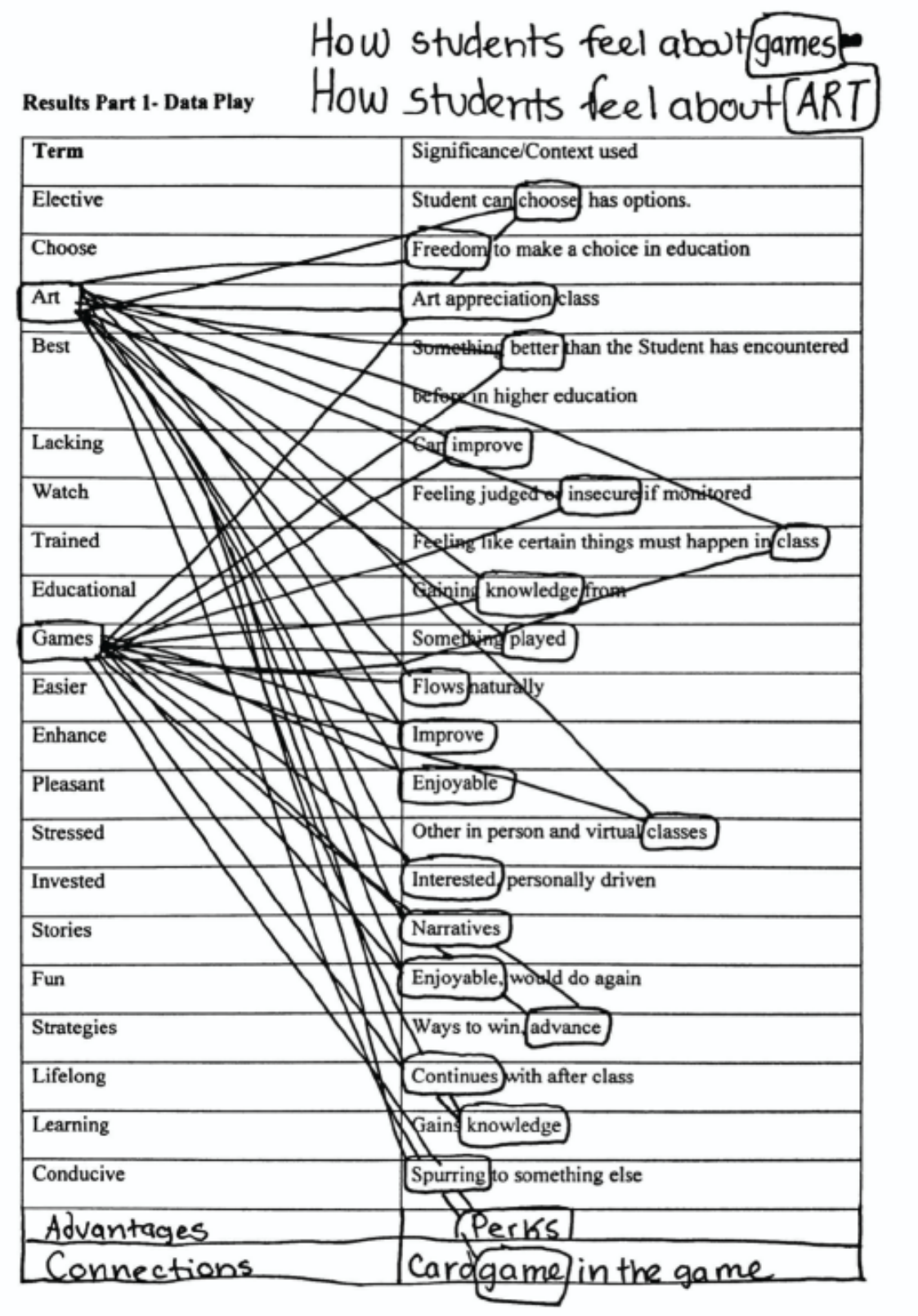


Figure 3.3: Data Play Student Feelings about Games/Art



How students feel about games
How students feel about ART

Results Part 1- Data Play

Term	Significance/Context used
Elective	Student can choose/ has options.
Choose	Freedom to make a choice in education
Art	Art appreciation class
Best	Something better than the Student has encountered before in higher education
Lacking	Can improve
Watch	Feeling judged or insecure if monitored
Trained	Feeling like certain things must happen in class
Educational	Gaining knowledge from
Games	Something played
Easier	Flows naturally
Enhance	Improve
Pleasant	Enjoyable
Stressed	Other in person and virtual classes
Invested	Interested, personally driven
Stories	Narratives
Fun	Enjoyable, would do again
Strategies	Ways to win, advance
Lifelong	Continues with after class
Learning	Gains knowledge
Conducive	Spurring to something else
Advantages	Perks
Connections	Card game in the game

Figure 3.4: Data Play Bracketing Most Used Terms

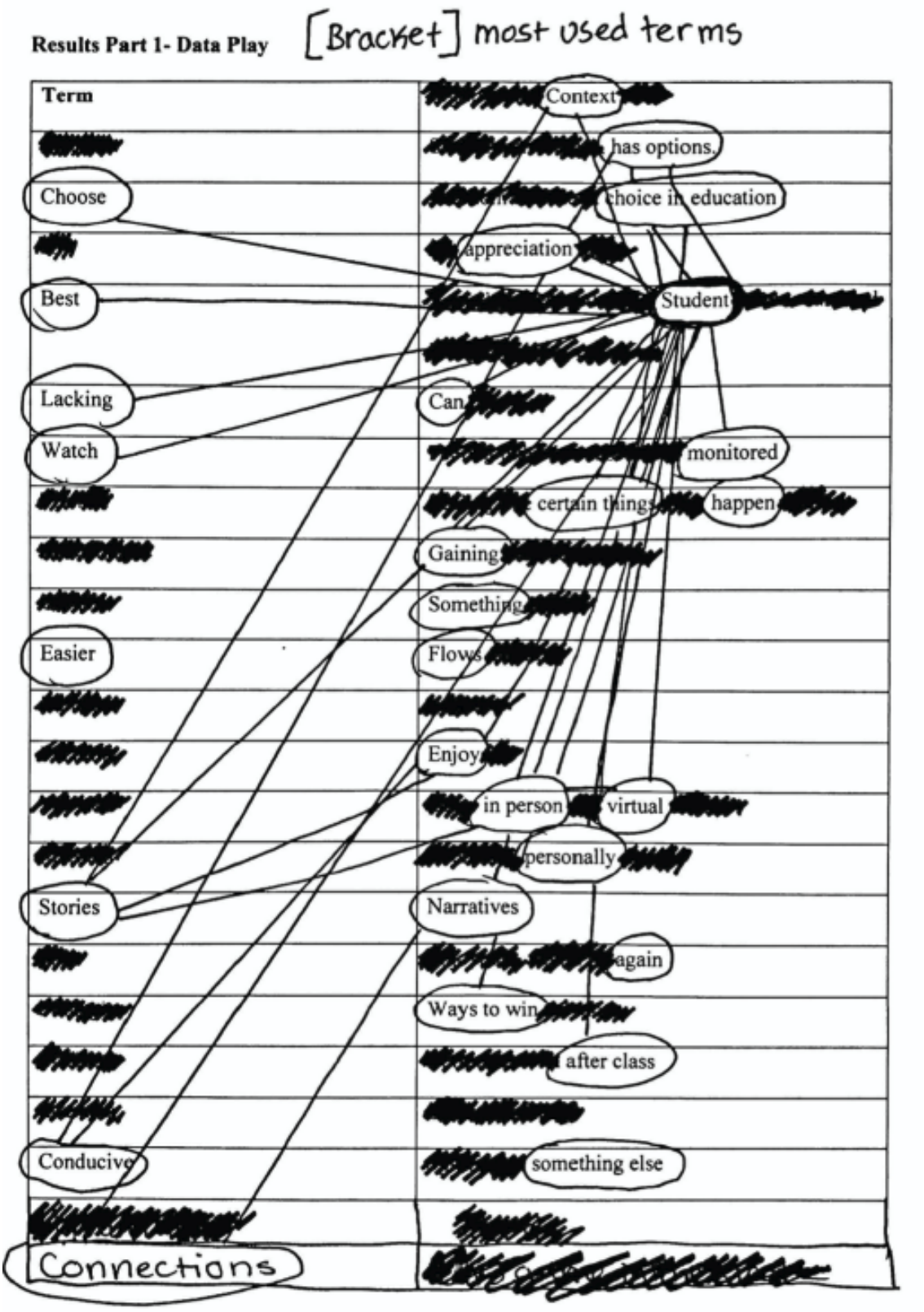


Figure 3.5: Data Play Electrical Schematic of Terms

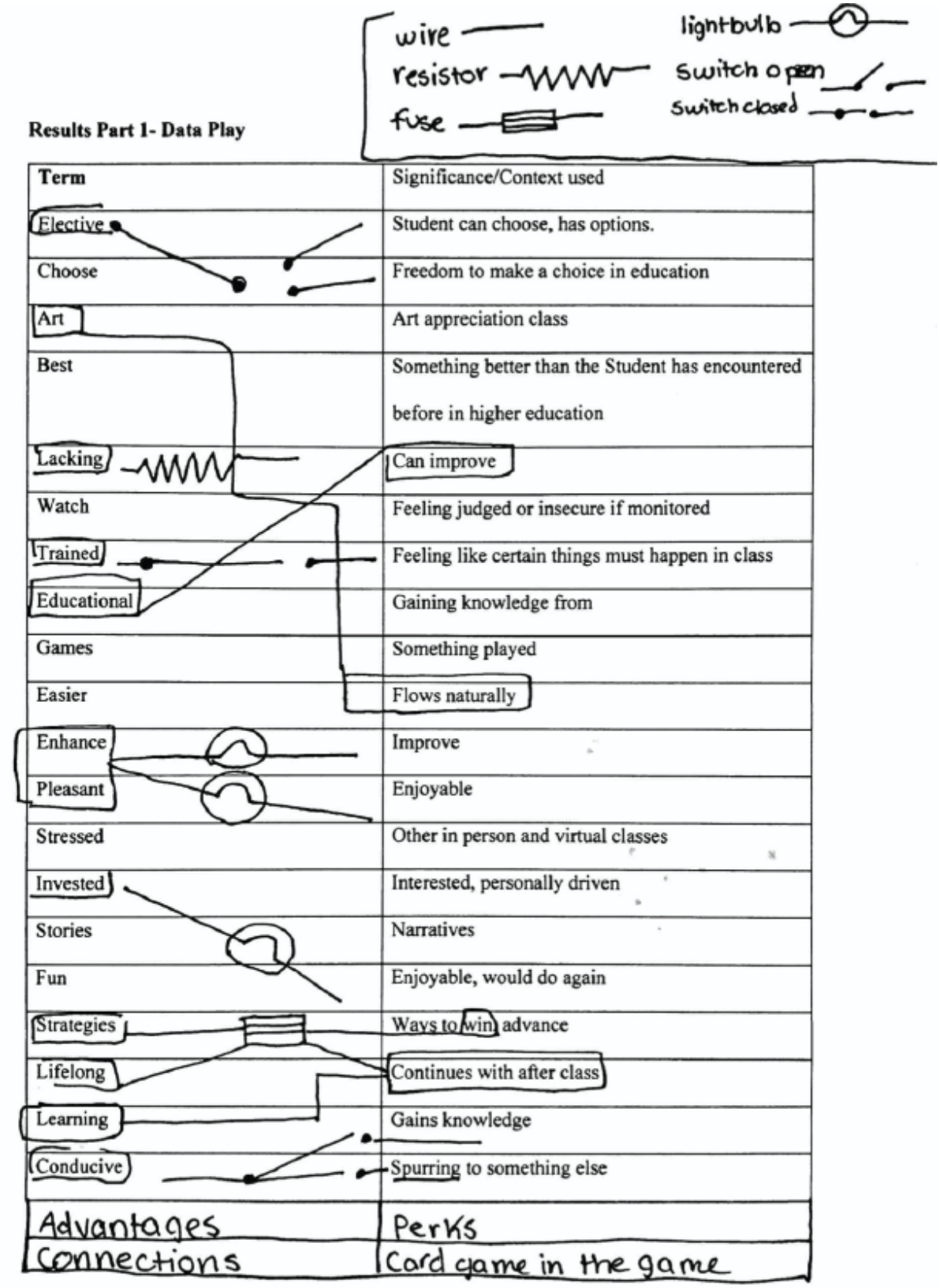


Figure 3.6: Data Play Bypass Switch Circuit for Gaming

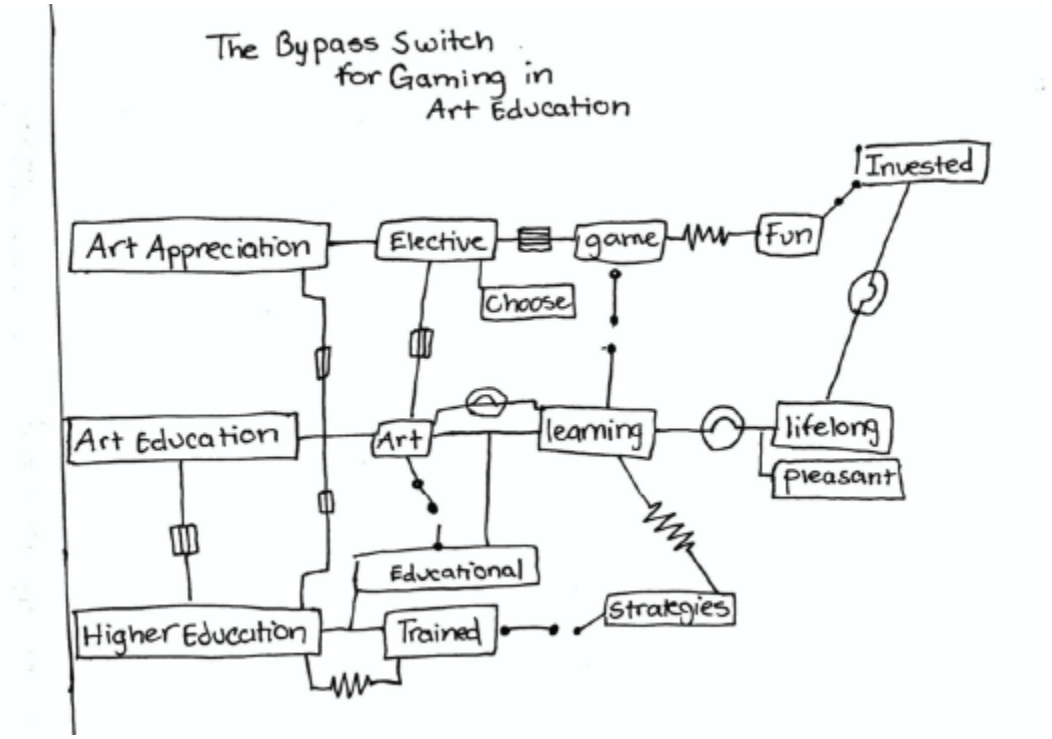


Figure 3.7: Reference for a Bypass Switch Circuit

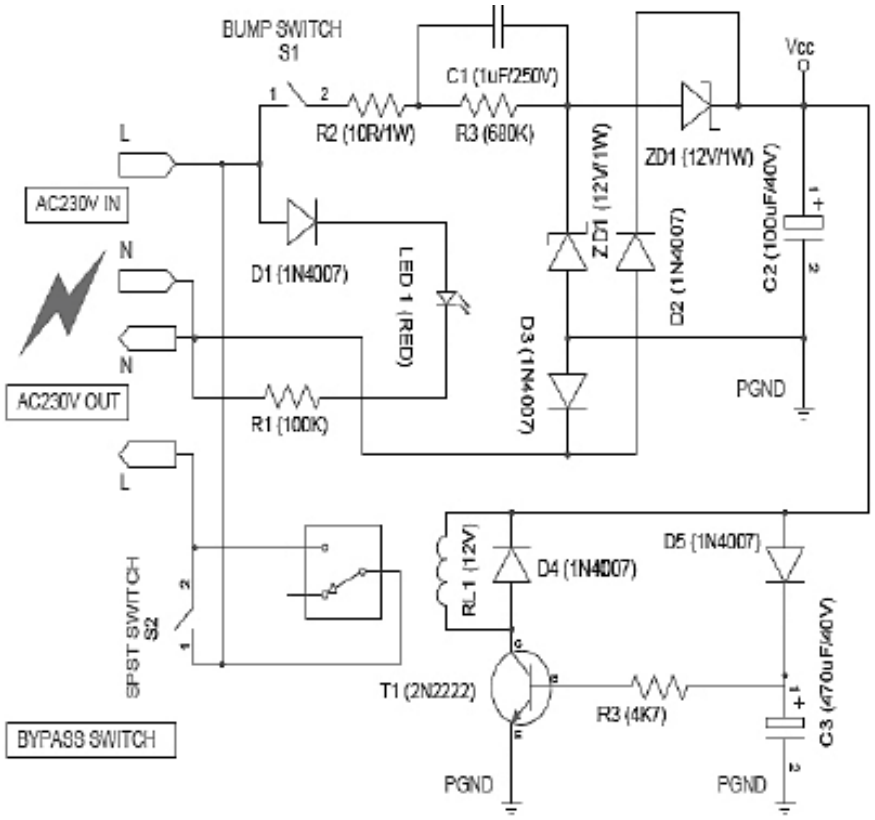
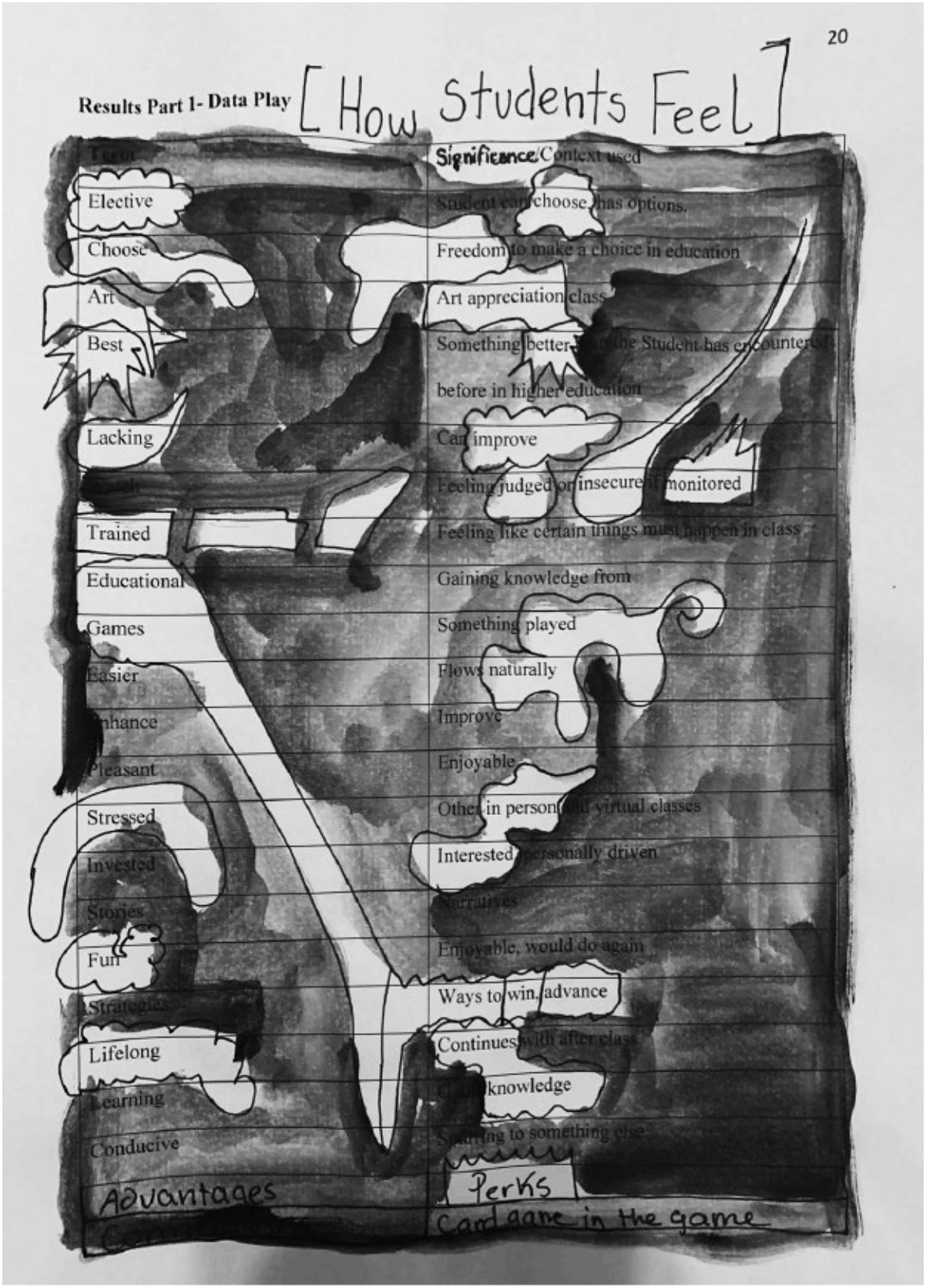


Figure 3.8: Distillation of Students' Emotional States



To “unpack” all of the information in the interviews, I wanted to apply some artistic categorization processes that would visually show how the content of the interviews were similar, yet different, and illuminate what themes appeared. In this chapter, I show lists of words, groupings of like terms, and line maps/diagrams (Fig. 3.2). These were made from the transcripts of the student interviews. There were several connections that began to emerge (once I began to group words, terms and phrases by similarity). I created a diagram focusing on just the terms “gaming” and “art.” (Fig. 3.2) After that, I created a map of connections using the words I found least used in conversation in the interviews to see what emerged—after bracketing (putting aside what I believed was important) out the most used terms. (Fig. 3.3) Then, I created a bypass style circuit with electrical switches (Figs. 3.4 & 3.5) to creatively make a circuit map of the students experience learning using a game in art appreciation.

The last diagram is focused on the emotional experience of students in art appreciation. It is a watercolor and ink drawing around the organic shapes that relate to students' lived experiences, focusing on stream of consciousness and allowing the phenomenon being studied to reveal itself organically. (Fig. 3.7)

The impetus of this research method stems from bell hook’s scholarship about an “engaged pedagogy” (hooks, 1994). The essence of engaged pedagogy considers the entirety of the whole student, the mind, the body, and the spirit (hooks, 1994). This dissertational research aimed to focus on the lived experience of students using a game to learn about art appreciation in higher education. The research design aimed to merge engaged pedagogy (hooks, 1994) with phenomenological interviews and post-intentional phenomenological experiments. The interviews and experiments represent a moment in time for the teacher-as-researcher, dwelling within and phenomenologically manipulating data (like the literature review and the student

interviews) to allow a deeper meaning to possibly emerge through mapping, diagrams, and illustrations. All of these methods (engaged pedagogy and phenomenology) interrelate and complement each other by provoking the researcher to continue digging further past obvious or surface level assumptions. The engaged pedagogy askes the researcher to fill in the whole of student experience, while phenomenology gives the researcher the freedom to create experiments which represent the student experience and then draw conclusions based on what is manifested.

The research design follows a post-intentional phenomenological method inspired by (Vagle 2014) to be able to conduct phenomenological interviews. I followed a five-step process (Vagle, 2014) to understand the phenomena. First, I identified my phenomenon as wanting to understand the lived experience of students learning from a game and the applicability of that to the wider field of art education. Then two students were purposely selected for the in-depth interviews, each with opposite experience with gaming in my honors art appreciation course. Student 1 was new to games of all kinds and Student 2 was a self-proclaimed master gamer in computer and consul games.

I then developed a flexible plan to gather data via interviews. These interviews had guiding questions, but the interviews were required to be executed in a fluid, responsive, and conversational way. Allowing new questions to arise and re-stating key phrases for clarification are essential (according to Vagle) to the best practices of conducting a post-intentional phenomenological interview. I also pre-planned the recording of audio and video of the interviews in order to review multiple times after it concluded to see if body language or key themes emerged that I had not noticed initially.

To filter and sift through all the information pertaining to the students experience in my course, I created drawings, diagrams, and illustrations to code or categorize themes, and create

artwork and diagrams as forms of phenomenological writing. The design of the research allowed the researcher to play a game with data by making drawings and visual diagrams. This became a game because as you draw and sort through the information, you have a "gut feeling" that spurs one to create an ink drawing, or a circuit, or a bunch of circles and lines to find new meaning. It is a way to play with the information to de-center the researcher and allow these unusual ways of categorizing information to free the phenomena from obvious and surface level conclusions and allow deeper truths of the students' experience to become visible.

Linday Finlay (2008) uses the term "variants" in phenomenology to describe multiple approaches that may be used in research. The design used here is post-intentional phenomenology because of the nature of tangential evolutions of game iterations and hermeneutic phenomenology and the narrative nature of the phenomenological interviews. These combine to create an approach to phenomenology uniquely situated for understanding students' experiences in art appreciation and what implications those could have for art education at large.

The overall design of this research strived to leave space for unknown and new knowledge to emerge. bell hooks states that as teachers, it is our job to respond to students by offering them information that addresses the connections between what they learn and their overall life experience (hooks, 1994). By researching about how students' experiences with learning through a game, the larger idea of how education and life itself can be seen as a game suggests itself. The data manipulations from the research illustrate a new way of processing interview data by allowing the researcher to play with combinations of visual and diagram-like forms to see what emerged.

3.3 Distilling Student Interviews into Data

After the interviews were recorded and put into transcript form, I read and reflected on

them over a period of two months by picking a set time every day to look at them with fresh eyes. I highlighted the key terms that kept emerging over those two months before devising any kind of experiment or protocol for the data. Tables 3.1 and 3.2 display the words and phrases collected over the two-month period that were repeated the most often and seemed significant to the students, because of the importance they placed on them in the interviews.

Table 3.1: Terms from Student Interviews

Term	Significance/Context Used
Elective	Students can choose, have options.
Choose	Freedom to make a choice in education
Art	Art appreciation class
Best	Something better than the student has encountered before in higher education
Lacking	Can improve
Watch	Feeling judged or insecure if monitored
Trained	Feeling like certain things must happen in class
Educational	Gaining knowledge from
Games	Something played
Easier	Flows naturally
Enhance	Improve
Pleasant	Enjoyable
Stressed	Other in person and virtual classes
Invested	Interested, personally driven
Stories	Narratives
Fun	Enjoyable, would do again
Strategies	Ways to win, advance
Lifelong	Continues with after class
Learning	Gains knowledge
Conducive	Spurring to something else
Advantages	Perks
Connections	Card game in game and connections to real life

Table 3.2: Phrases from Student Interviews

Phrase	Significance
Forcing people to….	Student must do something
Ignited something	Sparking curiosity
Strange way of explaining...	New mode of learning/playing, unexpected
Active engagement	Participatory

Phrase	Significance
Valuable exercise	Worth while
Synchronous asynchronous	Harmonious, not harmonious, working, not working
Bleeding edge	New or first to do something
At your fingertips	Accessible
Appreciate online	Accessible
Inception to finish	Wants to see what is next, to advance
Playable on any machine	Accessible
Put you in a game	Immersive
Paying more attention	Focused, interested
Checked out	Uninterested
Competition is fun	Collaborative, advancement, winning
I don't know everything	Result of game play
Searching for things	Method and process of game
Physically and virtually	Modes of play
Gave me something to relate to	Stories, games
Felt different	New way of learning via a game
By myself	Self-paced learning
Pleasantly surprised	Not expecting fun
Enhance my education	Bonus from course content
Get invested	Gameplay, stories
Take my mind off	Gameplay, stories, distraction as learning
Master the card game	Winning, competition
Keep going	Inspired to continue exploring content

3.4 Reflecting on Grouping Like Terms and Concepts from Interviews

Words like "art," "game," "learn," and "play" came up frequently in student interviews. Through the use of a phenomenological lens, these keywords and phrases appeared to have more than passing significance. I wanted to insure that these themes did not just appear on one document, so I created further iterations of mind mapping/diagramming using signals like circling key terms, drawing lines of connectivity, and crossing things out that seemed less important to me, again based on a gut feeling, which can be called a phenomenological nod (Vagle, 2014). All these elements helped me to see that the same key words and phrases emerged again and again, regardless of the method I used to uncover them, which helped me establish

those terms as important or significant.

One of the most unique approaches to categorizing and understanding the terms was the schematic of an electrical switch, which correlate to educational catch phrases like "lightbulb moment" or "switching it on and off" as a teacher. I wanted to see if there was any correlation between fuses, open switches, and circuits when applied to the terms students used to describe their experience with art appreciation. I found that an electrical schematic helped describe new ways of connecting the terms I had been working with. Terms like open and closed, or transistor which correlated to translation all seemed applicable to the experiences students described in their interviews. Overall, the visual meditations and categorizations offered new insights and the question of how I could dive deeper and learn more led to the later creation of Games 4-6.

Below are the phenomenological interviews of Student 1 and Student 2. These are exact transcriptions. Therefore, some of the syntax or wording may be grammatically awkward or incorrect. However, to keep the integrity and authenticity of the student's words and viewpoints, I have not corrected or altered their words. The complete notes and original documents for the Student 1 interview is in Appendix B. My full handwritten interview notes, front and back, For Student 2 interview are in Appendices B and C.

3.4.1 Student 1 Interview

Me: How did you come to take art appreciation?

Student 1: It was an elective, you know we get to choose the elective we want to do, and I thought this one would be the best fit for me. I've always been like, I didn't get to take any art history or art appreciation in high school I just had to take ART, this is… I've always been interested, I thought this would be the best thing.

Me: How would you describe your background with games?

Student 1: Severely lacking.

Me: How so?

Student 1: Does “Papa's Freezeria” in middle school count?

Me: Yes, I think so. Can you tell me about that game?

Student 1: Yeah um, it’s on “Cool Math” and you make ice cream and desserts for people, and you have to… each level gets harder, you have to make more and more and level up by how many tips you get. I got 80 once.

Me: Is level 80 beating the game?

Student 1: I am probably exaggerating. I got to 20. I sat in the same seat every day and got to keep going.

Me: Was this a game you only played in school or did you play at home?

Student 1: Yeah, I only played in school. We were in the computer lab and we had a typing class, it would have benefited me to pay more attention, now I can’t type but with two fingers for four words a minute.

Me: Other than the “Papas Freezeria,” would you say there are any other games you played that were significant?

Student 1: Oh, I have played “Call of Duty” 1 or 2, not well. Some baseball games, Major League Baseball on the PlayStation. I am not good at that either. I would rather watch others play video games rather than play myself. I have not trained my brain to work or function like that yet.

Me: Do you think those games—can you say more about them, are they just not user friendly?

Student 1: No, I just… oh yeah, the educational games are great, they are easier for me. If I were to get into video games, I wish I would have started with that and worked my way into pew-pew (shoot noises) games, video games. I, you know, cause, that was before, I have never played to enhance my education, but I was pleasantly surprised to use games (in art appreciation).

Me: Can you take me through a typical day or session when you played the game played in art appreciation?

Student 1: The whole day or just playing the games?

Me: The times you played, or what comes to mind when you had a session with the game?

Student 1: Ok, I tried to fit it into my schedule, when another class stressed me out because it was easy. It could take my mind off what happened earlier in the

day. I could get into it, I could get invested, I could try and master the card game, to no avail. I tried to fit it in to where I needed it, not because it was due that night. If I needed to blow off some steam, (it was) a fun way for me to not scream and curse at my teachers in my room at night.

Me: Were there particular things that relieved stress or that were more fun than others?

Student 1: Not the card game, it was just because I was not good at it. Um, no I think the themes are what got me interested. I've always been more partial to the Renaissance period. I don't know why, but I am. The Ancient Egyptian and Impressionism (games), the three time periods we covered in the game helped get me into the games even better. Does that make sense?

Me: Can you say more about what aspects were enticing, to get you into it (the game)?

Student 1: It was new, playing a video game in and of itself was new and exciting. I have never gotten to do that before. I didn't know we could do that. Playing the game itself, getting to do something fun for class, helped a lot, the themes helped. After I started playing the games the stories, the background and storylines, those hooked me too. It was fun.

Me: Do you think the place you played impacted your experience?

Student 1: Like where I sat down?

Me: Would it have been different if we only played in class?

Student 1: Yeah, it would have been different. Yeah, playing in class or playing in my room, like in the dorm, or in my living room at home. I think that it did… felt different. I couldn't get as invested playing in the classroom because I was too worried about everyone else doing better than me. But by myself, or in my room, I could re-do levels as many times as I had to without worrying about being judged by someone else because I couldn't not finish the level in the time period.

Me: It took me months to figure out the game, triple the time…

Student 1: That's good.

Me: The last question, do you think this experience would have been different if we used a board game. If you think about the Egyptian level of game used in art appreciation, it looked like a board game. Would it have been any different to use a board game or if we made a board game to use?

Student 1: I think it would have been, if you, are asking if we just had the board game and not the video game? I don't know, I love board games, if there was a

way to do both, we could play the board game in class and that would give a better feeling on how to play the video game on our own. There would probably be fist fights like Monopoly. I think the Egyptian game as a board game would be interesting it would be almost as interactive as the video game, but, yeah, I think board games would be beneficial, but more if they were tied to the board game and play both at the same time and play physically and virtually, it is comforting to hold a card in your hand, rather than click back because you lost it.

Me: Great we will wrap up with how do you feel that the game, playing the game, helped you or not, connect with art?

Student 1: It gave me something to relate the art to. Like, playing the video games and having actual characters and people I can connect the dots, with helped connect the dots. If you are just sitting in the classroom and being shown pictures of this was built, was built in this time, it doesn't resonate as deeply as connecting this person to this thing at a that time and getting to be a part of what all this person did through their time and seeing what pieces of art came from this time with this person you get to go through this person on their journey through that time. That helped all to be able to relate it to something.

Me: Do you feel any of it related to your life?

Student 1: I was one of those like, you know mythological nerds in school, read all the Percy Jackson in school. Yes, all them, the Egyptian one specifically did. I went back to 7th grade, simpler times. I made my own Hydra from playdough and toothpicks and Hercules, and we had this project, not a science fair but their own things we go to pick a story to do. Hercules and the apples or Hercules or the lion or the Hydra, you know Hades and Persephone and the pomegranates, and we had to build our scene and tell the story and present it. So, I did Hercules and the Hydra and then I got into the other Rick spins off of the Percy Jackson which was Greek, then there was an Egyptian then a Roman one I read them and thought I knew everything, it thought this was good stuff. When you said we were doing ancient Egyptian I was like this was my jam, I knew everything, and I found out I didn't know everything. It helped build on the books from 7th grade. I forgot the rest of the question.

3.4.2 Student 2 Interview

Me: So, this will take about twenty minutes, not long, it is just a conversation, and you will notice me writing down notes. That is for me to notice words and write down phrases.

Student 2: You are searching for things. Got it.

Me: So, I think we will start with how did you come to take art appreciation in the first place?

Student 2: Because I needed it, first off. I needed to stay in honors, I looked through the classes, and this was the only one I could have taken that served any real interest to me.

Me: Can you say more about what that interest is?

Student 2: For honors they have been very good about actively engaging with materials. I have never actively engaged with an art class that's why I wanted to take it.

Me: How would you describe your relationship with games?

Student 2: Lifelong. Not in the sense that the genre matters, it does not matter, I like fighting games a lot because competition is fun, it is good, there is not a lot I wouldn't play. The history of me being personally invested started with Nintendo. I bridged on to other things, but if I had to use one word, lifelong.

Me: What would you say your most profound moment with games has been?

Student 2: Is there a profound moment? That's hard. Let me think about that, profound moments.

Me: Something significant that sticks out to you.

Student 2: The first time playing a fighting game and learning and being able to contextualize, seeing "on paper tactics" in a game, is a moment in every fighting game, there is no spoon moment. Seeing all the work you put into a game, there is probably nothing like that.

Me: Can you describe the game in art appreciation? Did it have moments that felt like low-level or high-level play?

Student 2: I didn't approach it in that context. I guess you can. I guess you could probably think of that in spaces like the Egyptian level. It has this… which is not necessarily a good thing, strategies for mid-maxing. It shouldn't have them but they are there. That is the only instance there that's high-level play.

Me: How did you approach the game overall? Was there one strategy or several strategies overall?

Student 2: The three different games within the whole suite, um, Egyptian, I mid-maxed, Renaissance, I started paying more attention to what was being showcased because the information for the pieces we went over. I started

actively engaging with the material at that point forward. Impressionism—I learned a lot from playing connections, but checked out for the rest of it, because I've already studied a pretty substantial part of the era of European history. The discourse stuff I blew through, and I didn't think about, because I've done that. If I hadn't, if I didn't have the history background, I probably wouldn't have been able to do that. But I did.

Me: So, take me through a typical session you would have with the game, where would you play or what was a typical time when you would play?

Student 2: At home. Preferably at home especially for the Egyptian game, because it was playable on any machine. But I played at home for every single other one, because everything to do required the use of a second monitor. You needed to be able to look stuff up and have things open. I had search tabs open, like connections, having searches open, making sure I was understanding and the work properly, and the work of every single artist needed and pulled up, so I could use them. That basically required me to play it at home. And for a long while, once you have that many tabs open, the inception to finish is strong. Quitting half way through is nonsense, so I did them in single sittings, but maybe not a good idea, but I did them in single sittings.

Me: Would your experience possibly have shifted if you only played in class?

Student 2: I think so. It would have been substantially worse, actually it would have shifted and it wouldn't have been as good. The opportunity to consistently look things up, in there, and do it in the quiet easy environment to work in, was pretty good, much more conducive to actually being successful than it would have been had I been in class I think.

Me: What about if we used board games instead of computer/video games?

Student 2: I think the experience would have been different if we used board games and not video games. I think the method that you picked for this class is about the best way of doing this. I think because you're doing it through a video game has a couple advantages. One is that there's no set up for take down time and it doesn't waste a bunch of time to do what you need. There's logistical parts that are easier and being able to have it open on a desktop and also being able to enter (things) in a Chrome tab and being also able to look up necessary information and engage with it actively, or actively as intended, is doable within the video and computer game. I can guarantee it would have taken me much longer to get through it and I wouldn't have learned as much.

Me: Can you describe more about what you mean by video game context?

Student 2: What I mean by that is opposed to using a physical board game. A PC Game context, the ability to do this on a PC and not need to, the same reason why I

appreciate online homework because having online homework available in the same vein as you can look up the look up, you know, the concept and read text books that have information and look for community help having those both be in the same place is immensely helpful for learning, if it's all at your fingertips and you don't have to make as much effort to seek out help.

Me: Can you talk more about community help and how you used it to help when you are playing?

Student 2: I didn't use it in this context, but what it looks like in other contexts is it, say mathematics where are you have trouble with specific examples, you look for other alternate examples. You go to Khan Academy and things like this you look for external resources and when you have say online homework or something along those lines it means it puts both the homework and finding help for it in the same context like being able to just like do it effectively, like doing problems in office hours or doing your homework and office hours if you really want to put it that way. During this, because the games are not played by enough people for it to be for a community to sprout, I tried but it's not there. Because we are on the bleeding edge at this point people, in the bleeding edge people walk alone you could say.

Me: Would you like to see this game as a multiplayer instead of the single-player role-playing?

Student 2: I wouldn't probably, would not unless it was a synchronous asynchronous because if you have when your matchmaking pool is 25 people then it has to be a synchronous or nothing ever gets finished, not unless you're doing it with everyone else, but not everyone else is playing the same set of games at the same time right so what happened at that point if your matchmaking Nationwide and then you have the problem where if you're in elementary school, high school, a secondary school, over a year and something like that's where we did it over semester you have a mismatch in time and good luck actually finding matches at that point so they're finding whatever for basic is finding other people is is the problem, so I think asynchronous is going to do it if you if there has to be a multiplayer element yes.

Me: I definitely see that. So, our last question is just how do you think it feels to learn about art which is kind of a core subject, through playing games?

Student 2: Well like I mentioned, I think at the beginning and the end during class as well I think that it is forces active engagement with material, meaning that in this I've learned much more about classical art than I have in any other context in any other course because I was forced to actively engage with it and the learning from textbooks is just not the way to go. As much as it was buggy and did not work, I think that game Connections in that sort of thing was a very, very, very valuable exercise because you can tell people the

difference between different painting styles and the difference between the styles of artist, really active engagement they're not going to know it. You can't really know it until you've seen enough pieces to be able to distinguish it. Active engagement of the materials is paramount and its really kind of hard to do that in our classes that are just creating art appreciation/art survey made these classes where it's very hard to do. If you're not already interested, then it's it is very difficult to get people to engage in this in a good way of doing it. Forcing people to.

Me: Would you say that you already had an interest in art things before playing the game, did it change your interest level with art?

Student 2: The Impressionist level, I was already somewhat into this stuff at this point and I'm still at the same interest level. I think I just know more. But if I weren't interested, I think it would have ignited something. If I weren't interested at all, it would have ignited something.

Me: Can you think of other games that you played that have felt similar in gameplay or engagement?

Student 2: This is kind of new, it feels different from my wheelhouse.

Me: How would you describe your wheelhouse? Primarily fighting games (Teken)?

Student 2: Competitive smash has been my wheelhouse for a long time. I play a lot of first-person shooters. My wheelhouse for a long time was set in software games. But that's a whole different thing, but there's not a whole lot that I don't play, with that stuff is my wheelhouse but stuff I don't play a lot of is strategy games. I never have. I don't because I have repetitive stress injury in this wrist and now have broken it so it's just, I can't click fast enough, to play at the speed which is required to play these games at a higher level is just so much more than I am physically able to do. I'm physically unable to play well. I haven't really played much out of my wheelhouse. It’s a strange way of explaining, but it's the best I can relate to, unfortunately.

Me: Can you say a little bit more about what feels different for this game in particular?

Student 2: Aside from the “edutainment” thing? Obviously, I guess aside from the obvious, the game being an entertainment title, I think it's an edutainment thing which I've actually learned a substantial amount from. I usually don't use these things as an educational tool. I’ve never seen one that I've learned something from so that's what I would say. That's kind of a hard one to get, I think. Sorry, that's all I have.

3.5 Conclusion

Clearly, from the experiments in this chapter, I felt that a game was necessary to uncover the phenomenon I was investigating. I felt that I had successfully liberated the essence of the students' experiences from the interviews which left me feeling somewhat disoriented because I felt that the concepts now needed to reach back and relate to terms and scholarship in the field to paint a completer and more comprehensive portrait of the whole experience of the students in the course. This feeling of accomplishment was quickly replaced by a drive to push further and create a new game to combine all of these discoveries and insights made thus far into some form of interactive and generative game to further the research into their lived experience with using a game to learn.

CHAPTER 4

ZOETROPES

Figure 4.1: Map of Chapter 4

4.1 Map of Chapter 4

After the whirlwind of coding and sorting through the information in the phenomenological interviews, I had an exciting idea for creating Game 4 to further investigate what it was like for students to learn with a game and how that could impact art education. This chapter includes a description and discussion of the evolution of the "zoetrope" (rooted in the Greek term for the wheel of life) as a game and research generator. The introductory graphic for this chapter places the zoetrope at the center of the image with three heads which represent the

past, present, and future of the possible implications embodied in this research—as well as the various perspectives of the researcher which meld into one entity, one game—a zoetrope.

The map of this chapter represents the positionality of the researcher centered within a spinning zoetrope, a circular cardboard construction of my making. To make it spin, I placed it on a pottery wheel to observe its content in action. When it was spinning, there was a sense of disorientation which fused the researcher into the research being conducted. Embedded in the map of the chapter are headings and subheadings which swirl around the central illustration of the researcher to create a circular illusion of the map spinning. The speckles around the zoetrope and chapter content represent looming implications which have yet to fully manifest themselves.

4.2 Introduction to Zoetropes

Zoetropes were one of the earliest forms of animation. Still images are placed sequentially with small changes in movement visible from one panel to the next, thus creating movement. The zoetrope can be thought of as in infinite loop, a continuous means of seeing and exploration. Use of the zoetrope is intended to be a metaphor for this research because of the ongoing cycle of questioning and experimentation that comprises the life of the researcher. That applies to the circuitous constructions and diagrams found in this chapter as well.

Table 4.1 captures the pertinent details about each of the games as they evolved and eventually led to the development of the zoetrope and its subsequent iterations (Games 4-6). It also allows us to take stock of where we started, where we are now and where we're headed.

Table 4.1: Evolution of Games

Game Version	Description of the Game	Findings of the Game	Lingering Questions
Game 1	Venn diagrams	Traditional three ring Venn diagrams. This organized existing knowledge rather than generated new knowledge.	How can I combine terms and concepts in a way that I cannot control and that generate new insights or new knowledge? How can I push the notion of Venn diagrams further?
Game 2	Card game	Was able to generate new cards based on combining terms. A successful way to combine words, terms, and concepts from relevant scholarship. However, the cards all made clear connections and nothing surprising emerged from the word combinations.	How can combining words, phrases, concepts, and terms be gamified? How can a game de-center the researcher and give a sense of less control?
Game 3	3D forms	Created insight into topographical relationships between terms; created instances of light, shadows, and fragmentation. Based on origami folding to create contours and combinations rather than cards.	The overlays and origami- like approach to diagramming and creating forms was more experimental. However, the notions of light and shadow and movement could be pushed further, but how? How can play, folding, diagramming, all serve to randomize the terms and concepts generate new knowledge?
Interview Data Manipulations/ Experiments (No game number assigned)	Word maps, relational maps, mind map drawing, bubble maps, and data play with bracketing, circuits	By organizing the interviews into maps, drawings, and diagrams, I was able to see the repetition of words and phrases, themes, and motifs which became a key set of data from which I could draw conclusions about the lived experience of students from my art appreciation class using only their words.	How do I as a researcher/teacher relate to these words? How can these words and phrases from students create a distillation of the phenomena being studied? How can I use these maps, diagrams, and illustrations to create another game to allow the data to play with itself and interact with the researcher?
Game 4	Zoetrope with key phrases from interviews, collages of previous data manipulations on base and sides of zoetrope	I Created a spinning wheel (zoetrope) of relationships between terms, concepts, and data. The base was a collage of terms and drawings which allowed me to look at something new with each spin of the zoetrope.	How can the idea of a Zoetrope better represent the wheel of life and endless cycle of knowledge and questioning produced by research? How can I add as much content from student interviews and background information to create a gamified approach to concept creation about games?

Game Version	Description of the Game	Findings of the Game	Lingering Questions
Game 5	Zoetrope above with the addition of, plastic pocket inserts of cards of terms and phrases from student interviews, and adhesive strips around the top and in the window inserts with key words from student interviews	In this iteration of the zoetrope, I added interchangeable plastic pockets (which could hold cards with terms from the card game in Game 2) and along with added adhesive strips of more data. This resulted in a spinning wheel of insights. Each spin yielded new insights into what it could mean to learn from a game. No one spin yielded the same information and I felt no control as a researcher as the research was allowed to present itself to me in unexpected combinations from spinning the machine, then stopping to observe the combinations of diagrams, drawings, and phrases that emerged.	How can this spinning wheel of information, diagrams, and drawings be extended to de-center the researcher even more? How can I completely lose myself and any preconceptions in this zoetrope game? How can I push this zoetrope to stupefy the researcher and meld all in the information together, so it is something new and create something completely unexpected?
Game 6	Zoetrope above with the additions of an exterior paint and mixed media— comprised of all the words, phrases, drawings, diagrams, and interior content on the exterior.	This final version of the zoetrope was a compilation of comprehensive insights on both the interior and exterior surfaces. This allowed me to see an inner and outer world, placing me omnisciently above looking at everything at once. This felt like all the possible information was before me and the most relevant and wonderous conclusions appeared, spin after spin. The game had reached a level of true insightfulness and awe.	Something magical happened in this last version of the zoetrope. All the information ceased to be from Student 1 or 2 or background information. It all became the research like a sentient entity. Each spin of the zoetrope revealed new insights I could not predict, and I was awed by the combinations resulting from each spin.

4.3 Development of Game 4

As previously stated, Game 4 is based on the concept of a zoetrope. The base (or interior circular foundation) consisted of artwork and diagrams from the data manipulations while the window panels were collaged with phrases from student interviews. (Figs. 4.2 & 4.3) The product was a spinning wheel of phenomenological exploration, all pertaining to the lived experience of student learning from a computer game in art appreciation. Games 4-6 are meant to mirror how research is a never-ending, a continuous cyclical process which one can only grasp and perceive one moment at a time by peering through a section of the wall of the zoetrope and reflecting on each visible piece in an effort to understand the whole. These games helped me look at all the relevant terms, wording, and phrases from the interviews in a new way, removing any biases or preconceived notions, in order to draw the most relevant and authentic conclusions possible. It is also a part of the phenomenological process, especially in post-intentional phenomenology, to try to bend, alter, and tinker with the data you are studying to see what new information reveals itself when it is manipulated.

Figure 4.2: Wide View of Game 4

Figure 4.3: Closer View of Game 4

4.4 Analysis of Game 4

Game 4 was vital because it started the entire zoetrope game process and the collage process on its cylindrical base. To create a zoetrope that represented all the research and data I had gathered, I created multiple layers of diagrams, maps, illustrations, phrases and key words from the interviews. In essence, I deconstructed the interviews and all of its components and reassembled them into an artistic and informative base for the zoetrope structure. From viewing the results of this deconstruction, I was able to gain new insights into the lived experience of the students in my Honors Art Appreciation course. However, in Game 4, the zoetrope still seemed to rely heavily on student interviews terms, which seemed incomplete and left me yearning for a

more complex picture of the wider scope of the research.

Game 4 contained several elements that successfully revealed aspects of students lived experiences in the art appreciation course. In Figures 4.2 and 4.3, I was able to see that students did not feel like they knew much about the content of art appreciation (at the start of the course). All the students were able to access the game and content online in lieu of using a textbook. This worked well for them because they could more flexibly engage with the content from multiple devices or locations. In their own words, Students 1 and 2 stated that they enjoyed being in class physically and learning virtually at home. They felt that they were on the "bleeding edge" of trying something new and groundbreaking. Lastly, the game helped them to feel focused and interested in the course content. While this is a good analysis, I wanted to include more data from the students to see if more consequential insights could be generated.

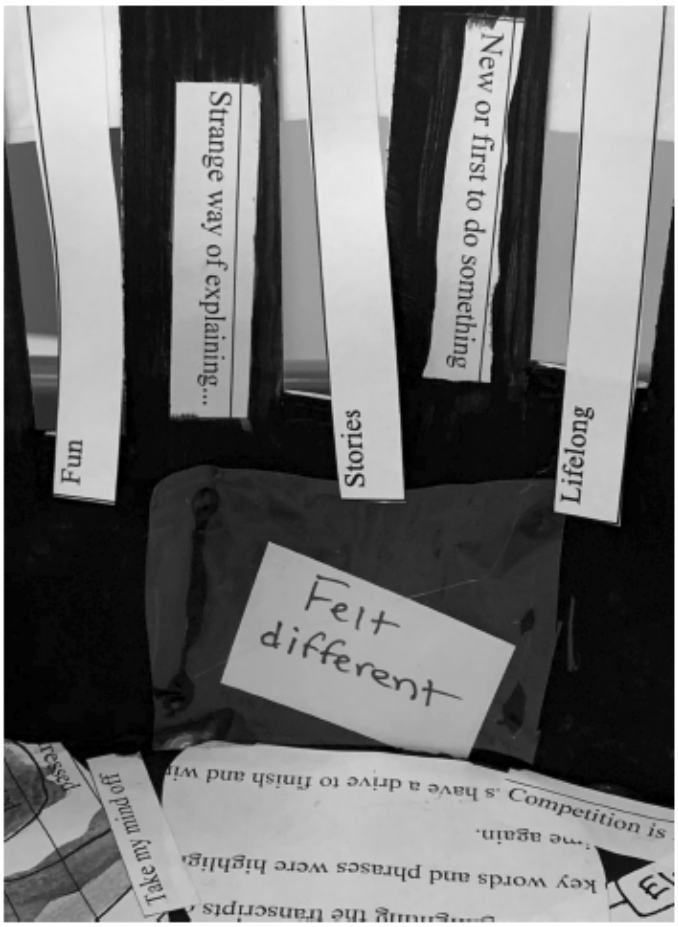
4.5 Development of Game 5

Game 4 turned into a new game—Game 5. This was the result of my feeling that I could add more content which would add to the complexity of the zoetrope and enable me to engage in iterative research creation Game 5 created a newer experience and more de-centered look at the research. As I stared deeply into the zoetrope spinning on the pottery wheel, my gaze allowed my focus to oscillate between the terms and drawings that came in and out of focus. My eyes were immediately drawn to the negative space and the shadows cast by the slits in the sides. I realized that negative space would offer an opportunity to add information, phrases, and words from the student interviews and perhaps adding more information could make the Game 5 version into a more expansive look at the phenomena of learning with a game.

To accomplish this (Fig. 4.4), I added clear plastic pockets to hold additional data from student interviews or words and phrases collected from Game 2. These pockets can be filled with

interchangeable cards representing key phrases that were found to be most important to students when conducting the data play manipulations in earlier research games. They helped create a more complete picture of students' experiences when combined with the collaged elements and terminology placed on the vertical bands. I immediately noticed the relationship of positive and negative space in the vertical bands, which presented an opportunity to add even more data from the student interviews. I had already used key phrases, collaged elements from the data play, thematic terms, and felt that adding the additional words or phrases would be a productive effort. There was also an addition of an adhesive band across the top to hold additional words and phrases from the interviews so that the interviews were represented in totality, although de-constructed.

Figure 4.4: Game 5, Detail 1



4.6 Analysis of Game 5

The addition of the clear pockets added a layer of interchangeability to Game 5. It enlivened the zoetrope with a playful and interactive nature. The zoetrope had already undergone drastic changes from the original base and black interior walls with the addition the pockets and the strips of paper in the slits and around the bands across the circumference of the top. The zoetrope continued to spin on top of the pottery wheel so I could control the speed with the foot pedal, fast, slow, medium (based on experimenting with the speeds I found medium was the best setting as it was not too fast nor too slow). I stared at the zoetrope to see what it would tell me about the lived experience of my students.

Insights that jumped out at me from Game 5 were related to how students typically study art appreciation as an elective. It has recently become a core course requirement in some institutions of higher learning, like the University of North Texas. Students found the topics and the way they were taught via the computer game to be "pleasant" according to Student 1. The modality of learning through a game in a higher education course was new for my students and unexpected. None of the students who enrolled in the Honors Art Appreciation course had any knowledge that it was an experimental class. The open-ended assignments and focus on using the game as a tool for learning was new for these students and created a desire to continue to explore and discover content covered in the game. Students explored course content on their own, driven by their interests, not because it was required by the course syllabus. This increased their investment in the class beyond their original intentions. Some students collaborated on game levels and assignments, some organized competitions among themselves to see if they could beat scores on certain levels and some even wrestled with notions of winning because each level did not require a score to advance, only playing. They learned that winning was more of a process of

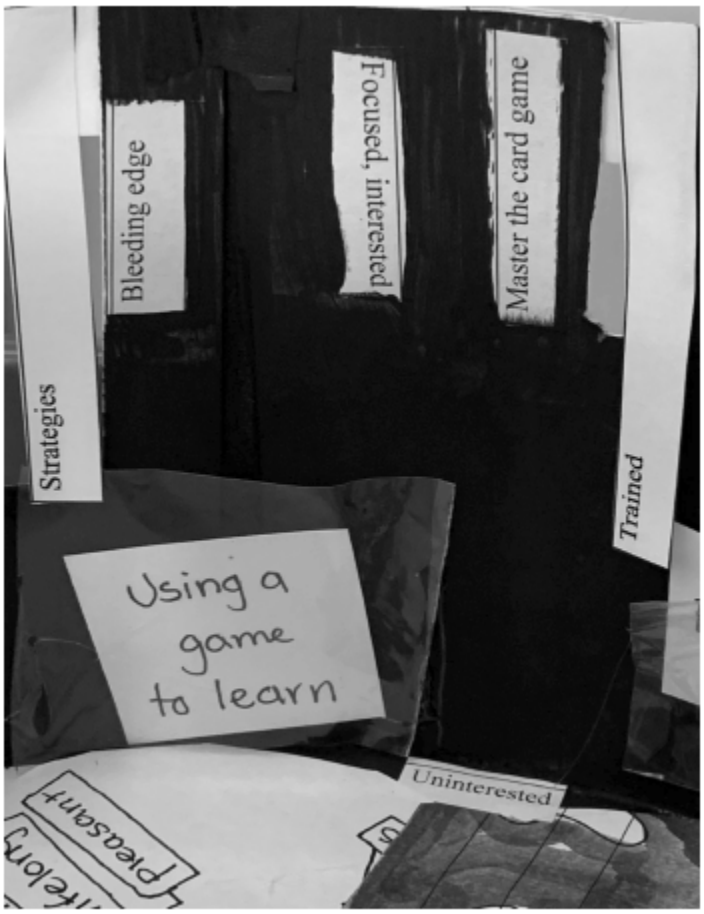
play rather than advancing successfully through a level in a game. Students could also replay and revisit levels they enjoyed making winning less important. This approach created a space for students to dwell in content and pursue discovery rather than advancement.

All the interactive qualities of the computer game served to enhance their educational experience and appreciation of the complexities of art. However, I saw another opportunity to create an additional layer of data from the student interviews to determine what else I could extrapolate and how close I could get to the purest truth of their experience. Pursuing post-intentional phenomenological research often means excluding what you think you will discover and focusing more on the process of examining and re-examining your data from different vantage points, to see what emerges.

Detail 2 from Game 5 (Fig. 4.5) provided further specific insights into using a game to learn. Some students felt uninterested in topics like Impressionism or ancient Egypt because they are so commonly referenced and well known. Some students felt trained to study, memorize, and regurgitate facts in quizzes and tests. Asking students to just openly explore topics, artists, and movements using the constraints of the game was a new task according to Students 1 and 2. They felt like they were on the “Bleeding edge” (according to interview from Student 2) or doing something new for higher education art appreciation. The students developed new strategies to play the computer games and realized that mastering the card games (a mini game within each game module of the computer game used as a textbook, similar to a vocabulary matching game where cards appear and they goal is to match a card with the artist to the artwork) was not as much fun as just exploring the levels, cities, scenery, and characters in the game. They wanted more out of a game experience than just getting through levels to advance and finish quickly. Using the game and exploring student interests helped the students (according to their own words

in the interviews) stay focused and interested in the content throughout the duration of the course.

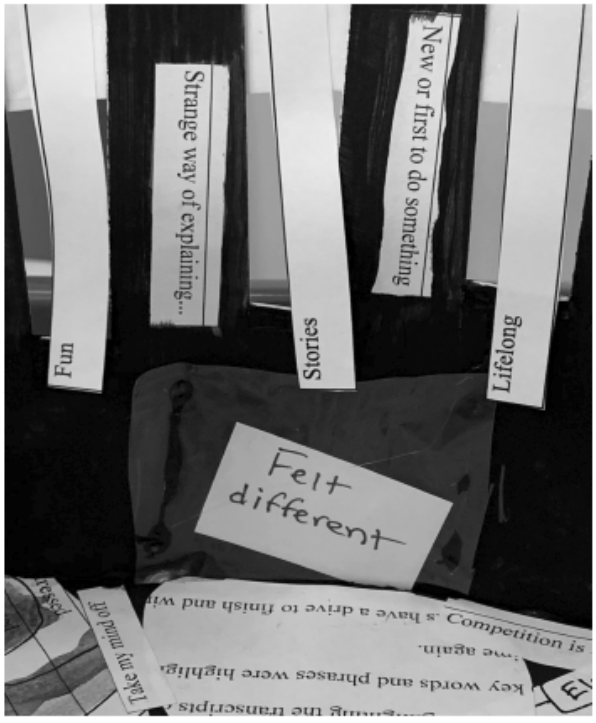
Figure 4.5: Game 5, Detail 2



To further examine the view into the zoetrope, I can see from Figure 4.6 that Student 2 mentioned several times that my art appreciation course "felt different" from his other classes. I wanted to go deeper into this notion. Detail 3 (Fig. 4.6) shows the correlation of the class feeling different about terms like "stories" and "fun." The narrative in a character driven art appreciation computer game was a new way of explaining art from the position of the artists telling their own stories to the students playing the game. Being the first to do this at the University of North Texas (the course was an experimental course for Honors Art Appreciation students) gave students a sense of excitement about the course and freedom to navigate the game with an open

mind because no class had done this before. I had to let the students know that the course was new and different because the computer game modules had not been used for a semester long course in this way before. There were also glitches and some issues in the programming of the game which students were encouraged to email to the game company to help them refine the game. There was not an established right or wrong way to play and no scores or benchmarks to beat. Students also interacted with the characters' stories about being artists and their struggles in certain time periods, which gave the course content a more personal connection according to Students 1 and 2. As they told me, the characters felt real and the students related to them. This learning experience helped encourage a possible life-long appreciation and connection to art for these undergraduates. However, the zoetrope still felt like just a spinning encapsulation of interviews. I wanted to elevate the entire zoetrope to a complete meld and "mash up" of all I had learned and encountered so that it became something new and transcended words, phrases, and diagrams and perhaps become a vehicle to draw the most insightful conclusions possible.

Figure 4.6: Game 5, Detail 3



4.7 Development of Game 6

The last game iteration of the zoetrope, Game 6, focused on adding content to the exterior space of the zoetrope in order to create a dialogue between the interior and exterior content. This change completed and expanded the zoetrope and its content into something completely new, resulting in a comprehensive and complete game which became a circuit, a machine, and a true expression of everything that went into the research for the dissertation. Game 6 became the ultimate game and produced wonder, awe, and new insights into my research questions by becoming a spinning manifestation of the research that existed in its own reality, a reality I could glimpse, study and be constantly inspired by. This zoetrope felt like the most authentic infinite game (Carse, 86) because it existed in a dizzying state without start or end.

Figure 4.7: Game 6, Detail 1

4.8 Analysis of Game 6

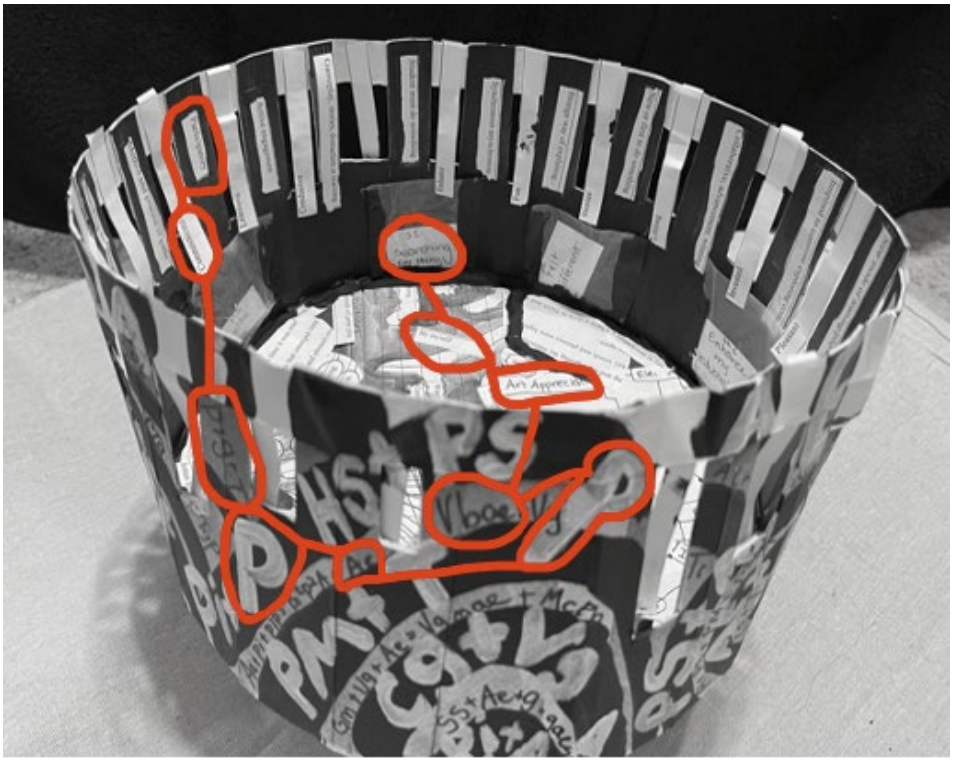
In a swirl of black, white, and grey, a rush of terms came in and out of my line of sight: gaming, art education, micro-phenomenology, social sciences, technology, gaming, and phenomenology. All these terms became one blur, one moment. All this culminated in a feeling and awe about how rich and multi-faceted the connections to art education and gaming can be. I was struck by how gaming is in everything. For me, art is an aspect of everything, almost to an inseparable degree. Every term, every word, became a part of the research questions and interpretations I gathered. I felt like it did not matter where my gaze was or what I looked at. Anything I saw would be equally valuable. This notion goes back to Deleuze and creating a map or game that shows all possible outcomes but allows the researcher to combine what they see into new knowledge. The longer I stared at the zoetrope, I saw it spin and multiply, like the phenomenon of seeing double. I saw the zoetrope in a phantasmagorical mirage rising above and below itself. This represented my three research questions and within the blink of an eye, they all merged into one spinning mass. Game 6 allowed me to indulge in complex reflection about the research questions and draw new insights (like what the future of art education could look like) which are explained in more detail in the next chapter.

In one specific instance, I can see a card in the card holder that says, “felt different” and I concluded that the way I went about teaching the course, i.e., the in-class discussions, the game itself and the discussions about what it means to play a game and the direction the research had taken could all be grouped under the term “felt different.” The game seemed to be speaking independently of me. All the words and phrases gathered from the students became part of this continuous cycle of research, reality and questioning—the flashes of words and phrases, gamifying my own interactions into a dialogic form of guessing, introspection, humor, and

gratitude. I felt like I had a better understanding of art appreciation, art education, learning, games, and what it meant to conduct research into this exhilarating phenomenon.

To better explain how the eye travels around the interior/exterior of the zoetrope, I created red lines that show what I noticed first in Game 6, Detail 3 (Fig. 4.8). This style of analysis is like Deleuze's lines of flight and the notion of periflication (meaning combining several unlike or random terms to generate a new meaning) and became a way to decipher the zoetrope (Deleuze, 1968). Deleuze believed that unlike terms could be grouped together to create a coherent new meaning. This is what the Game 6 zoetrope accomplished and, I think, on a monumentally effective scale. Any terms grouped with an image, word, or diagram created potentially new insights.

Figure 4.8: Game 6, Detail 3, Line of Flight



To explain the phenomenon of the dialogic and creative interactions with the zoetrope, it is helpful to visualize a wall in the office of a private investigator or police department on which

a variety of clues are posted and connected by red threads. I essentially did the same thing mentally with the kaleidoscopic fragmentation of the zoetrope's interactions with me. In Figure 4.9, after several minutes of spinning the zoetrope, I saw a card that said, "searching for things." What was the game searching for? What was I searching for? I glanced over and the term "by myself "appeared alongside "art education." As a researcher, I was looking for a possibly deeper meaning. What was this meaning? The next line of thread circled and connected to "felt different" as something new was coming into view. These lines together became both knotted and clearer. The terms were intertwined, but it was not my job to unravel the knot. I needed to simply appreciate it and add to it. It did not matter what the words were, but rather how all of the phenomena came together to create something larger and more transcendental.

Figure 4.9: Game 6, Detail 2

This knot of terms, which ceased to be mere terms became a more complex reality, suggesting unforeseen directions that might be taken in education and learning. I knew immediately that the game was telling me that distilling learning into a finite series of events was

impossible. Rather, I should be looking at education as a knot in a long strand of interconnected and equally complex knots and moments of learning and discovery. I began to crane my neck sideways, even looking backwards at the game through a self-portrait mirror. I saw "video game-based art education" and "phenomenology."

I felt disoriented as the zoetrope spun and I stared at it in the mirror. Phenomenology appeared time and time again. The game had become the essence of learning. The game itself was showing me the word phenomenology again and again to remind me of the importance of playing with my own pre-conceived notions and conclusions, almost as if to say, look deeper, think again, re-center and then de-center yourself in your research. What was I left with? What is a dissertation but a momentary exploration of a phenomenological experience? The game and the phenomenology of games will endure. My course and my research were a small moment in a larger shift in education to incorporate games into instruction and learning. But the games of school and life are integral to and inseparable from this research. The post-intentional phenomenological research about using a game to learn about art appreciation provided a glimpse into how games are already present and integral to our lives. The game and the reality of my research was in and of itself and infinite game, connected and essential to rethinking the meaning of art education and art apperception.

4.9 Conclusion

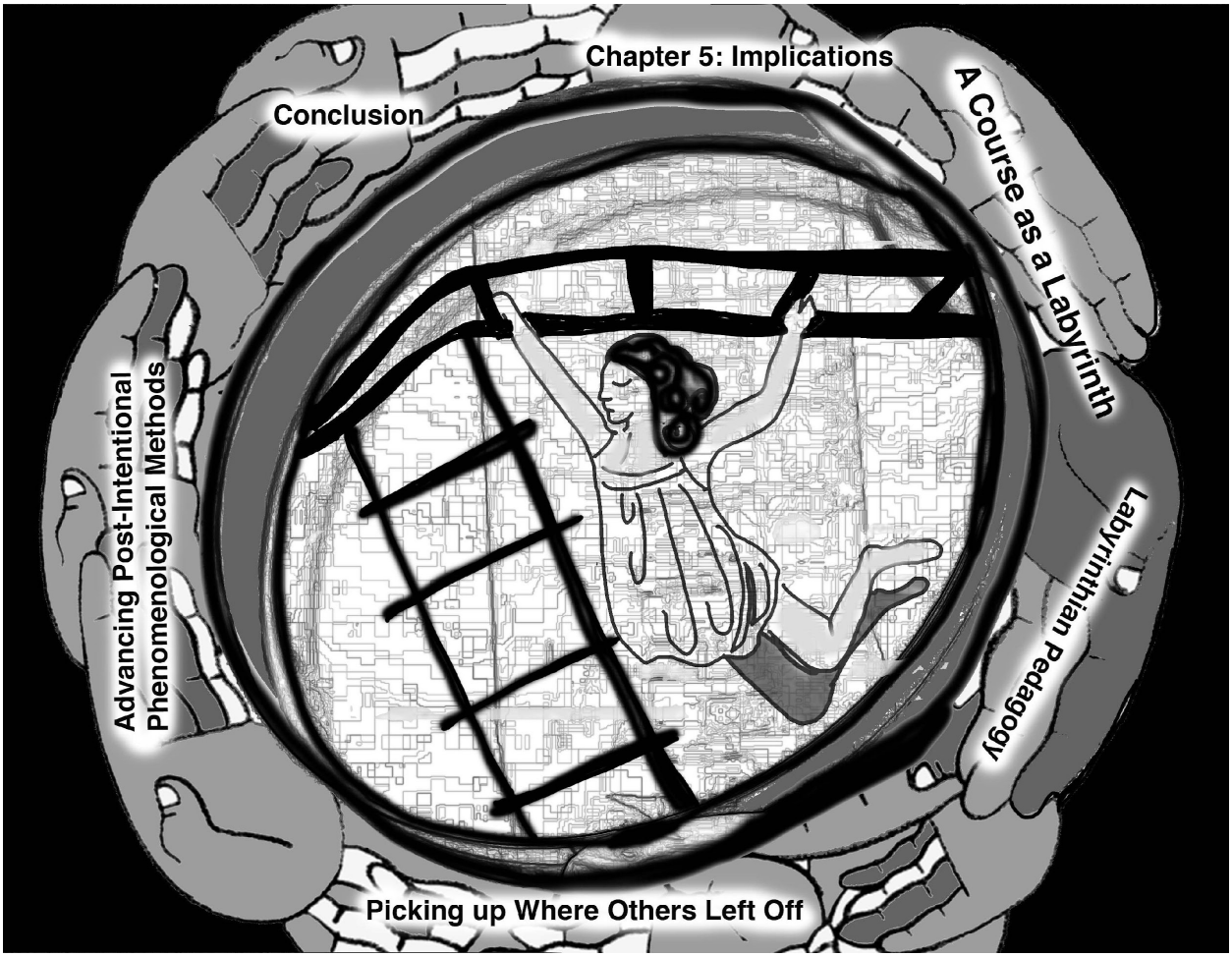
After going through the development, play, analysis, and further development of Games 4-6, several conclusions emerged. Game 6 was the only game that transcended being just a game and somehow manifested itself into a spinning reality of my entire scope of research. Game 6 created a new insight regarding students in the course and their experiences with using a game to learn. This left me with the feeling of having been part of an infinite game because there was no

start or end, no winning or losing, just the games themselves (Carse, 86). Game 6 was no longer simply a zoetrope of information but a spinning wheel of life which generated wonder and insight with every revolution. After going through the extensive process of making 6 games, I had arrived at an authentic and effective way to allow the phenomena of my research to reveal itself on its own terms, which yielded countless insights into art appreciation, art education, and learning in general. These implications, discussed in the next chapter, illustrate why the process of going through 6 game stages allowed me to arrive at unforeseen new insights which can significantly modify the current trajectory of art education.

CHAPTER 5

IMPLICATIONS

Figure 5.1: Map of Chapter 5



5.1 Map of Chapter 5

After a nearly two-year journey developing Games 1-6, we arrive at Chapter 5 which discusses how and why learning with a game can impact art education at large. The last map of the dissertation is radically different from the ones at the beginning of the previous chapters. The Chapter 5 map represents the acrobatics of drawing conclusions and generating implications regarding everything that goes into learning from a game including all the information from the students' perspective as well as my own as a researcher and even the zoetrope's own insights

(not necessarily envisioned by either students or researcher ahead of time). The central image is an outline of a researcher who is on a trajectory out of the petri dish of research into the hands of real-world practicing educators and theorists. The rungs on the overhead bars represent the previous games and scholarship used to propel the research forward. The hands in a ring around the outside of the petri dish represent the continuation of the research as others explore new applications and outcomes. The hands also represent the literal adaptation of the term "hands on" which is commonly used in education to refer to involvement and participation in projects. The whole image is a stark contrast from the emerging and evolving maps in the previous chapters, because the one central figure is moving out of frame. Here, the map transcends itself along with the researcher. This alludes to the process of not only writing a dissertation and conducting research but believing that the work has immediate, real-life implications (which are discussed further in the chapter) that can be applied in art education and other fields.

There is also a key connection between the overhead bars, the researcher and the demanding process of creating a new methodology for post-intentional phenomenological research. When I started this research with diagrams and card games, I had no notion of what to expect next. I only had the phenomenological attitude of trying as many varied approaches as I could until something new would manifest itself. I wanted the research to direct itself and show me implications and answers in its own way. The struggle of living with the scholarship, the theories, and how to create a way to play with them and have a reciprocal relationship was challenging. Most research has a direction and aim or a singular goal that can be addressed through cleared defined, discipline-specific criteria. To really do justice to the post-intentional mentality of being open-minded, I had to accept that the research was a cycle. The cycle has no clear start or end and crosses many boundaries. It raises as many questions as it answers. The

only thing you can do is move forward, no matter how many tangential roads it takes. This is why there are drawings, maps, circuits, origami, light projections and zoetropes—all bundled into two years of trial, error and experimentation culminating in insights—insights that can significantly the approaches to using games to learn and teach in any subject area, but especially in art education.

5.2 A Course as a Labyrinth

"Even a stone can be a teacher" (Kopp, 1974). In this case, even a labyrinth can be a teacher or provide an instructional model. One of the outcomes from this research reimagines art education and, by extension, art appreciation by creating a course that is labyrinthian in nature. A labyrinth in this context is an infinitely circuitous and meandering path or space that is meant to be infinitely traversed. For example, Plato's Minotaur was trapped in a labyrinth, not meant to escape or be able to solve it. In this way, it deviates from the start and end of a level, goal, or maze.

Game 6 revealed that students are drawn to exploratory spaces in games (stated explicitly by Students 1 and 2 in their interviews), spaces which are labyrinthian, meaning spaces where they can explore on their own terms without the worry of advancing to the next level or completing a task or taking a quiz. These open-ended spaces for inquiry do not need to be solely found in games and can transcend virtual space and become operational modes for inquiry in courses of all kinds.

The results of Games 1-3 indicated that the students in my honors art appreciation courses were more engaged when they could put together content and knowledge with their own *modus operandi*. How can a game without a standardized set of learning objectives operate? The key is to look back at Maria Montessori's philosophy of education: "Education is not something

which a teacher does, but...a natural process which develops spontaneously in the human being" (Davis, 2004). Such an approach is phenomenological, allowing for knowledge to arise from "a vast sea of informal, tacit, embodied experience" (Davis, 2004). For phenomenologically attuned educators, learning is understood to be focused on examining relationships and interconnected themes that emerge and change over time. Perhaps there is another way to look at facilitating student learning by using a game.

Consider if the teacher was not a facilitator but, rather, a participant who co-created spaces for open-ended, self-guided discovery rather than setting parameters and guidelines that students must follow to advance through course content. These spaces of inquiry, for instance, could be embodied in a game in which the teacher and students explore together. The teacher could develop a game as a virtual space or even a physical space for Socratic discussion that is generated and navigated by the students. The teacher's role is to be present and participate dialogically with the students and the game. All participants—instructor and students—navigate the game together and coexist in the cyclical process of discovery, discussion, exploration, and reflection.

In a more concrete sense, one can examine the distinction between freedom and restraint by examining the role of the maze and the labyrinth in educational pedagogy. Discussions about the uses of mazes and labyrinths date to antiquity. Plato wrote in *Phaedo* about the labyrinth wherein the Minotaur resided. Herein lies an important distinction about how the terms labyrinth and maze are used. A maze has a beginning and an ending point. A labyrinth is circuitous, winding, something one loses oneself in it before a path emerges, where one can walk out of it in wonder. In *Phaedo,* Ariadne gave the hero, Theseus, a ball of thread which was anchored at the

start of the labyrinth to help him find his way out. *Phaedo* is a complex representation about how a maze and labyrinth are similar but have separate aspects of explorative properties.

More modern iterations of a maze and labyrinth can be expressed by the following concept linking these terms to finite and infinite games introduced by James. C. Carse (1986):

Maze	Labyrinth
Finite Games	Infinite Games

One distinction to note is that a maze has levels, a start and an end and is designed to be traversed rather quickly. A labyrinth, on the other hand, is more infinite in the sense that it deviates from the start and end of a level or goal and exists to be explored for prolonged periods. One can also correlate the distinctions from Lewis and Alirezabeigi (2018), regarding studying and learning with the following graphic:

Maze/Learning	Labyrinth/Studying
Finite Games	Infinite Games

In the above graphic, another vital relationship is evident. Learning itself, especially in modern day education, has goals, objectives, and student-oriented goals of achieving mastery at a given level in order to move to the next level or objective. Opposite this is an emerging kind of educational practice that is explorative and resides in the practice and apprenticeship of oneself to study as in a journey through a labyrinth or topic. “The agent here (the learner who has goals to meet) becomes a passive wanderer of a labyrinth. This is an educational action as not an action, or an action that produces nothing except its own ephemeral pathway” (Lewis & Alirezabeigi, 2018). The goal of the research in this dissertation is to spark further dialogue about creating pedagogical interventions using a more labyrinthian approach to art appreciation.

5.3 Labyrinthian Pedagogy

What does it mean to adopt a labyrinthian approach to learning? *4X Through the*

Labyrinth by Nicolai and Wenzel sheds some light on how labyrinths correlate to pedagogy, course design, and student learning in the form of infinite games. In the 1950s at Bells Labs in Murray Hill, New Jersey, Claude Shannon invented a maze and a mechanical mouse named Theseus. Theseus is regarded as the first machine which was capable of learning on its own (Nicolai, 1982). The mouse navigated sensors and magnetic switches to traverse the maze without human intervention. This Theseus did not need a ball of string to navigate his maze. He simply wandered and remembered which twists and turns to take. The algorithms which he used to navigate became the prototype for how data navigates and moves around the Internet. Shannon also created games consisting of binary digits or "bits." In 1949, his game "Caissac," a chess game, was among one of the first digital games. The games Shannon created prompted the player to move through what he called the "labyrinth of cyberspace" (Nicolai, 1982).

Building on Shannon's notion of the "labyrinth of cyberspace," a key theme emerges. The games that live in cyberspace can be infinite games. In a contemporary sense, the computer game, for example, is housed on a platform that can link to other games, to discussions, forums, videos, and tangential threads of discovery (Deleuze, 1987) that are all constantly available to the player.

The research games and machines in this dissertation are examples of using learning as an infinite labyrinth rather than a finite maze. The "labyrinth of cyberspace" (Nicolai, 2012) is a labyrinth of content, in which the research itself is generated by perpetual play. There is no exact winning or losing, there is no ideal time to quit or begin. Playing is the key factor. Studying rather than learning is the point, exploring as opposed to concluding (Lewis & Alirezabeigi, 2018).

Another point regarding the "labyrinth of cyberspace" lies in determining how one

navigates and operates in the labyrinth. Roger Caillois in his text *Man, Play, and Games* (1961), says we enter games voluntarily and the choices we make are driven by our thoughts and decisions and how those govern our impulses. Suffice it to say, the labyrinthian infinite game offers an individual endless avenue of exploration, and, at the same time, fosters the formation of a union between player and game. This infinite relationship is circuitous and punctuated by moments of discovery and wonder. Another instance of game-like exploration comes from Johanna Drucker's *Speclab: Digital Aesthetics and Projects in Speculative Computing*. Drucker states that "making things, as a thinking practice, is not only formative, but transformative" (Drucker, 2009). The projects at Speclab are like my own research in several ways. First, the use of what she calls temporal modeling. This is a process of conceptual drawings and diagrams about how computer programs and interfaces could operate and what they incorporate. These temporal models are like my data driven manipulations and experiments.

While Drucker does not call her temporal modeling a game, they lead to an interactive platform which is game-like. Instead of a physical zoetrope, Drucker and others at Speclab created a project called Ivanhoe. This was a social and participatory way to re-interpret and collectively write based on the book *Ivanhoe* by Sir Walter Scott. The notion of taking inspiration from a text and re-creating it is what I attempted to do with the information from the literature review and student interviews, funneling the terms and concepts into a generative game. Ivanhoe became much more than the initial vision and when "ultimately built it successfully demonstrated its theoretical principals" (Drucker, 2009). It is important to note that the Ivanhoe project was not a tool or a "save all" for the digital humanities but, rather, a working framework and exploration.

Outside of the Speclab, there are other scholars who are re-interpreting and thinking

through alternative ways of learning. Martin (2021) questions the changing landscape of the university which is moving towards a more encompassing virtual or digital entity with MOOC's (Massive Online Open Classrooms) and video conferencing apps. Martin charts the impact of these moves on the nature, form, and function of the traditional lecture. With Martin, the "move to" of learning and studying with and in the digital screen space are questioned and theorized in terms of increasing levels of mediatic displacement from classroom to screens. My research is less focused on mediatic displacement, but rather a mediatic engagement with a game housed in digital space as an alternative to a lecture. Martin implies that "to play with a screen is usually understood as gaming" and that users are expected to know the rules (Martin, 2019). I find it interesting to consider playing in these digital game spaces as open places of contemplation and self-centered exploration (labyrinthian) rather than as an outcome based on winning and losing.

Applying the model of a labyrinthian infinite game to art education could mean simple changes in how the instructor assesses student understanding or designs a course. For example, if the constraints of assessment and content delivery are considered, there could be built in free spaces for respite, studious wondering and dwelling withing the content, or interventions within content delivery. This can take the shape of simply having students create a space for play, be it virtual or physical. In *Difference and Repetition* by Gilles Deleuze he states that "to fill a space, to be distributed within it, is very different from distributing the space (Deleuze, 1994). Taking a nod from Deleuze, the space of labyrinthian pedagogy can exist in a synchronistical relationship between the students need to wonder and the instructor's ability to leave dots for the students to connect. Spaces of inquiry should be filled with content, as well as space to wonder and explore freely. The notion that there are finite, correct answers would be replaced by a reciprocal open-ended exploration . This would create a studious community, where individual exploration came

back to the classroom and discussed findings, questions, and concerns before venturing out again. Students could perhaps apprentice themselves to the infinite knowledge that presents itself in the game or content of a course. However, the students are still in a maze because a course has a finite start and end. Within the structure of finite learning, there can be infinite or labyrinthian moments. In this way the instructor becomes a co-participant but would not be solely a content delivery mechanism, but a dialogical relationship with the students in the space of a maze with labyrinthian interventions. The course would emerge as a shared journey full of discussions, questions, and reflections, where within the parameters of a university course, free space for exploration. .

What would a functioning class that uses labyrinthian pedagogy look like exactly? After examining the experiences of Students 1 and 2 in great detail, I have two possible ways a course could look. First, a labyrinthian art appreciation course could be a hybrid of flipped instruction and bell hooks "engaged pedagogy" (hooks, 1994). The class could take place in a black box theatre or alternative space without desks that would allow students to sit in a circle. The first part of the course would be establishing key vocabulary and concepts within class games. The second part of the course would be where students would be divided into teams. Each team would create a game that they would post on an LMS (learning management system) like Canvas for the other students to play in class. Each team would be assigned a time period to cover in art appreciation. They would have to identify key figures, key works of art, terms, and create a way for their classmates to interact with the content. This could be a simple game made in Google Slides or sites, a play, a collection of clues to go on a scavenger hunt, a simple game using templates in free online programs like Turtle Art, Pixlr, or a free storyboarding or animation site of which there are several. There would be class time dedicated to introducing and modeling

these resources. Then students would create an online game which other students would explore and play in class. Then as a group, we could discuss how effective various games were, what worked well (or didn't) and what we learned as a result.

Another approach would have students using the computer game I used for the basis of my course as homework, then come to class and bring "screen shots" they utilize to discuss what arises when they play the game. This would be a productive way to look at content and focus on what students notice and observe and use that as a basis for discussion and discovery as a core component of the course. Ultimately, a labyrinthian course could look different in several ways, but the unifying theme would be to create space for games (pre-made or student generated). Thus, the class-time becomes focused on co-exploration of a game space and content, allowing the teacher to move away from lecturing to facilitating conversation and discovery.

5.4 Advancing Post-Intentional Phenomenological Methods

How does creating research games impact the methodology of phenomenological research? According to Linda Finlay in *Hermeneutic Phenomenology in Education,* current phenomenologists aim for fresh, complex, rich descriptions of a phenomenon as it is concretely lived (Finlay, 2012). This approach to utilizing phenomenological research methods in this dissertation considers the rich historic traditions of phenomenological research will create new knowledge and insights, mainly modeled after the work of Mark Vagle and his text *Crafting Phenomenological Research*.

To chronicle the expanse and evolution of various iterations of phenomenological research, one early milestone is hermeneutic phenomenology, which is typically linguistic-based and relies on textual based analysis and reductions which are hallmarks of traditional phenomenology (Ihde, 2003). My approach to phenomenological research acknowledges

hermeneutic and narrative based analysis but expands it with various experiments. After hermeneutic phenomenology came another milestone called post-phenomenology, pioneered by Don Ihde's scholarship. He states "I 'make' technologies; they, in turn, make me.... Instruments are the means by which unspoken things 'speak,' and unseen things become 'visible'...this informs what I call post-phenomenology (Ihde, 2003)". The creation of the research games allowed for the unseen aspects of students' lived experiences to be illuminated. However, the research evolved further in another direction, one called post-intentional phenomenology.

Mark Vagle defines post-intentional as meaning that intentionality cannot be traced back to a centered subject. The threads of intentionality are constantly being constructed, running in various directions all the time (Vagle, 2014). Most importantly, Vagle addresses the point that post-intentional phenomenology can do what the old phenomenology could not, which is, joining in the conversation about multiplicity and difference. Making this approach more dialogic, Deleuze and Guattari's 1987 concept of "lines of flight" allows for philosophically oriented work to be generative, creative, and complex (Vagle, 2014). To understand the "lines of flight" in a student's experience using a game to learn means looking at this phenomenon from as many angles as possible. If one considers the notion of the labyrinth with "lines of flight" (Vagle 2014) one can picture a construct or a map that extends infinitely in all directions. The "lines of flight" become ideas pondered, experiments made, drawings, diagrams, and many tangential discoveries. You realize that you can never see it or discover it all, but the "lines of flight" (Vagle, 2014) you do follow have a meaning that reveals the whole phenomena itself.

Vagle's post-intentional phenomenological methodology relies on reading and writing through data in a systematic, responsive manner and crafting penultimate texts. The research of this dissertation advances the idea that art making, and game creation is a form of research.

However, there is no end, no final reduction. The end merely circles back to the start. The cycle and process of research is unended. For the researcher, all that can be done is to seek to understand moments in the "labyrinth" of lines of flight, drawing conclusions at one moment while realizing that that moment will itself change and evolve.

5.5 The Limitations of Uncertainty

It is vital to divulge some of the limitations concerning this research. Paradoxically, one limitation was that the experiments or "lines of flight" (Vagle, 2014)) have no limits—meaning that the research can take on any form: a play, a novel, a painting, an installation, or a collection and combination of several such methods. This makes it challenging to know if you are making enough progress and difficult to see the way ahead.

A second limitation was that the Honors Art Appreciation course was atypical because of its small class size. Only two phenomenological interviews were conducted, resulting in a small sample size that may not adequately represent the whole of students' experiences. The students were also in an Honors course and, according to their own words, were used to having in-depth discussions and critical inquiry about the game and learning with a game itself.

A third limitation was that I was a graduate student, instructor, and researcher simultaneously. Returning to the notion of bracketing (or putting aside ones preconceived notions on a subject), in some instances, I would have to look at phenomena as a student would or as another instructor would. I had to consider all possible realities and iterations of this course to truly see what it means to learn using a game.

The fourth limitation was that I did not have permission from the creators of the computer game I used to include screen shots or the graphs of student interaction with the game. There were some challenges with clarifying what the levels and modules looked like, which was

a limitation. Visualizing the exact modules may have been helpful but I also did not want to promote the game and the gaming company.

The last limitation lay in the unconventional nature of my research. Most research has a clear hypothesis, clear steps and can be replicated. The purpose, and perhaps to some a limitation, is that the research I conducted cannot be replicated exactingly. This is because each person has a different perspective and preferred method for exploring data. These could be writing, art making, music, performance, or more. Therefore, the research would be different depending on the individual conducting it.

5.6 Playing Games with Tensions and Implementation

This dissertation started out with fairly traditional phenomenologically informed study of the lived experience of students in my art appreciation course. Over time, there was a shift away from looking singularly at their words to experimentation using games. This was a movement towards increasingly posthuman, post-intentional discourse through gaming. The implications for creating a research methodology to address both data and experimentation as well as lived experience was a constant tension, but a productive one. Without all the tensions present in this dissertation, there would have been no epiphany or breakthrough. My own studious wonderings and contemplation of how labyrinths relate to maze like structures ever present in learning and pedagogy, have caused me to reflect on how interventions can be made in art education. These interventions can be small shifts in practice and assessment, making space for these liminal labyrinthian spaces of inquiry. This could be the future of art education, a balance between content and labyrinthian space to explore, within the confines of existing systems. Allowing students to create virtual spaces via websites or games, or in person gallery installations that allow for participants to walk through a thought process, are only a few ways that a labyrinthian

approach can be applied to existing and emerging pedagogical practices.

5.7 Conclusion

Overall, allowing students and instructors to dwell in a labyrinthian-like game rather than move along a goal and objective oriented trajectory through content has several benefits. This research contains the promise of greater freedom in education for students and instructors to learn by making this small intervention of using games, one that allows for a labyrinthian approach to education rather than forcing students to begin at a designated starting point and proceed to a predetermined end. The creation of games is just one way a researcher can enter a labyrinthian space with their research. I have not only gained a better understanding of students' lived experiences by using a game to learn but have acquired a deeper appreciation for research by allowing the interviews, data, and games to evolve and reveal themselves to me on their own terms. I believe this study contributes to the design of new methods for conducting phenomenological research and new ways to model learning for students, researchers, and instructors.

Referring to the map at the beginning of this chapter, it is vital to consider how the researcher and research have evolved to this point of de-centered knowledge. A whole universe of overhead bars, commonly called "monkey bars," representing" lines of thought" (Vagle, 2014). Based on the time, the culture, and the life experience you have, everyone will traverse those overhead bars differently. However, each conclusion, each pass and discovery is as insightful and valid as any other. It all depends on how long you are able to continue that relationship and journey with the research (and where it takes you).

To take these idea's back to art appreciation, it is essential to note that this course was an experiment in how games could be incorporated into a core subject, which are typically textbook

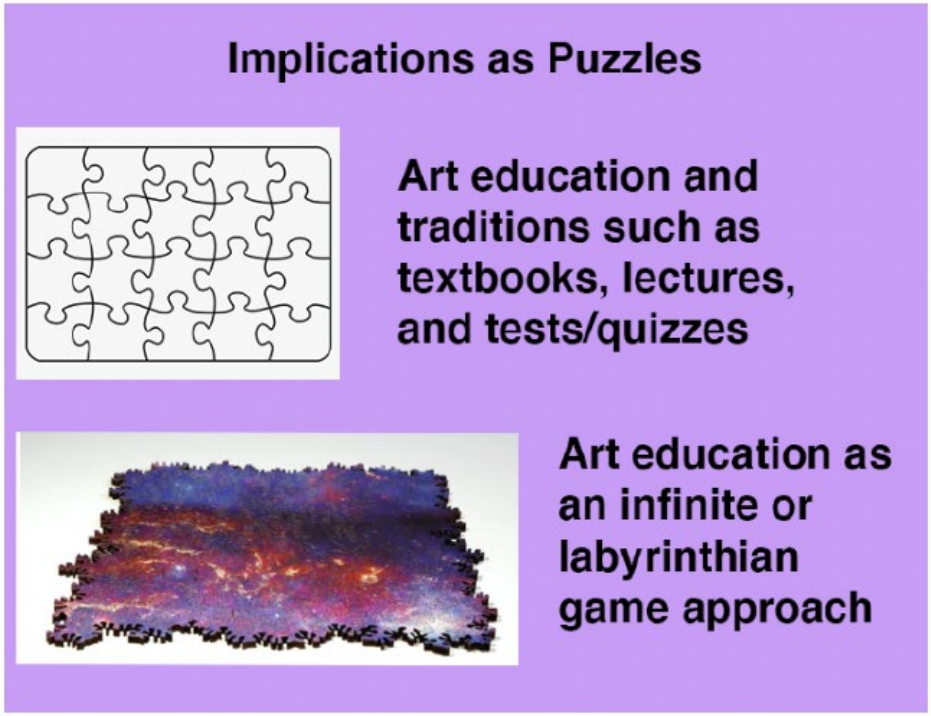
driven (Jansen, 1991). Due to access, finances, and availability, more and more courses are moving online. Games are a unique way to create spaces for exploration and discovery for use by students, especially when housed on an online platform that is always available to access. The phenomenological interviews and discussions with students indicate a greater need and desire on their part to incorporate more interactive platforms into courses, including the subject of art appreciation (according to their statements in the interviews). If the goal is to appreciate art, games can be further developed as aesthetic and educational spaces for discovery and contemplation of concepts like elements and principles of art, as well as artists, movements, and foundational concepts. But perhaps labyrinthian games offer something else: options for creative inquiry without end. Such an option would open up a space and time for study within a learning-centric notion of art appreciation. This could be summarized as finding labyrinthian spaces within mazes or creating labyrinthian interventions within a maze-like structure of learning, pedagogy, and art education.

I want to return to the map at the beginning of the chapter. The central figure is moving out of the frame, signifying that this research is being shared and open for others to expand. I want to end with a visual metaphor about how and why this is important to the future of art education. The background of the petri dish environment is a puzzle of circuits and lines, which the researcher traverses. I want to focus on the notion of a puzzle as an analogy for why the use of labyrinthian games could have such a potentially large impact in education, again it is a small shift. Instead of remaking the puzzle and puzzle pieces, allow for spontaneous intersectionality and the studious pondering of content within the constraints of giving students content. In other words, the goal is still the same, to teach, inform, and inspire. However, instead of everything fitting neatly together in a predetermined way, allow for new happenstances and moments of

wonder and intrigue.

Among the many characteristics retained from traditional approaches to schooling are the full school day model and the way majors and disciplines are broken into units of study. They are represented in Figure 5.2 as standard puzzle pieces in a jigsaw puzzle. I have often noticed that research in education seems to focus on changing or altering the puzzle pieces but not the puzzle itself.

Figure 5.2: Implications as Puzzles



My ideas about pushing for a more labyrinthian approach to studying and including games in art education is best represented by the Infinity Puzzle seen above. The Infinity Puzzle was created by a design lab called Nervous System (Voyce, 2016). This puzzle has no preconceived shape, no start, no end, and the players make of it whatever they want. This is consistent with what my research has shown me about the lived experience of students using a game to learn about art appreciation. Students said they enjoyed the game, but the most exciting

and generative spaces were the areas where they could wonder around, talk with characters, explore buildings—contrasted with playing the mini games where they had to match cards or complete vocabulary. I believe that art education would benefit from more courses incorporating games but also thinking critically about how games can become spaces for exploration rather than just content delivery. It is hoped that this dissertation, taken as a whole, demonstrates the value of creating one's own games to understand data and interviews as well as helping expand the applications of post-intentional phenomenological methods further.

It has taken two years for me to understand how games can be more than just an activity or supplement to a class, but rather a framework for how to design a course or think about course components either in person or online. From Druckers book *SpecLab,* I think of "making things, as a thinking practice, is not only informative but transformative" (Drucker, 2009). The process of making games as a form of research has been deeply transformative as an artist and pedagogue. The research has pushed and pulled me in numerous directions, all of which helped me understand the complexity of learning by using a game. As the scholarship in research-creation (Loveless, 2019) continues to emerge and proliferate, this work is one approach to making use games as a way to understand not only lived experience, but how a dissertation itself can be a game between the research and researcher.

APPENDIX A

PHENOMENOLOGICAL INTERVIEW QUESTIONS

Phenomenological Interview Questions

Overall: What was your experience using a game to learn about art?
How did you come to take art appreciation?

1. Describe your background with games? Who would you say you are as a gamer?

2. Take me back to an experience you had with a video game or computer game? Why was that significant?

3. ~~How does that experience compare to this one?~~ Tell me about a typical day or time you would play the game?

Variations

1. Where did you primarily play the game? Would the place you played the game impact yor expirence?

2. Would your experience have shifted if you only played the game in class?

3. Would the experience have been different if we used a board game and not a video game?

ReSTATE:
Say more about using a game to learn about art?

APPENDIX B

STUDENT 1 INTERVIEW SHEET/NOTES

Interview 1

May 13, 2019

start: 1:33 pm

stop: 1:54 pm.

Phenomenological Interview Questions

Overall: What was your experience using a game to learn about art?

1. How did you come to take art appreciation? – elective, you choose.
   1. Describe your background with games? Who would you say you are as a gamer? best fit.

lacking Papas Freezeria Cool Math. make icecream & food. no AH, aa in HS always interested

tips · 80. ~~Sat at same place.~~ Only at school.

computer lab, typing class.

   2. Take me back to an experience you had with a video game or computer game? Why was that significant?

C.O.D not well. watch others, coodination.

What [Education games great]. started. with that.

enhance education,

   3. ~~How does that experience compare to this one?~~ Tell me about a typical day or time when you would play the game?

Hard question

1. fit into schedule, would reduce stress. → flexible. time
2. Beyond due dates.
3. Card game hard, the themes got me interested. 3 times we covered helped get into.
4. New helped - novelty → fun for class, the stories hooked.

Variations

1. Where did you primarily play the game? Would the place you played the game impact your expireience?

playing in class vs in dorm, at home → felt different invested in

2. Would your experience have shifted if you only played ~~the game in class~~? Classroom.

felt personal – Judgement

3. Would the experience have been different if we used a board game and not a video game?

love board games, but could do both, in class to use tutorials.

ReSTATE:
Say more about using a game to learn about art?

- could be as interactive as games.
- tied to video game. Virtualy and physically.
- comforting, usable

last re-statement

relate the art to

- people.
- connect dots

- Slides / pic's dont resonate. Be a part of their life.

- Helped a lot - relate it
- 2 life ? - Loved mythology - resonate deeply - 7th Grade - ornamented gestures -
- helped further - old knowledge too.

APPENDIX C

STUDENT 2 INTERVIEW SHEET/NOTES

Interview 2
May 13th, 2019
Start: 1:58 pm
Stop:

Phenomenological Interview Questions

Overall: What was your experience using a game to learn about art? needed to stay in honors.

1. How did you come to take art appreciation? real intrest. honors classes

1. Describe your background with games? Who would you say you are as a gamer? activly engaging

Lifelong. Genre not important, fighting, competition. not hot normal for. A.A. alot. Nihenteno.

Significant – fighting game – see things in term (an paper into agame)
"There is no spoon" moment = seeing something into the head of an appoint.

2. Take me back to an experience you had with a video game or computer game? Why was that significant?

• Sports. Low level vs high level play → Not being blind.

How did you approach the game.

mid-making
Mecanas – adiction to into,
Lumiere – a lot fran connections

previous history beating

3. ~~How does that experience compare to this one?~~ Tell me about a typical day/session when you would play the game?

At home, (remot any machine) del gthers at home. Required 2nd moniter, multi task – multiple tabs, required being at home,
– insentive to finish – single sittings –

Variations

1. Where did you primarily play the game? Would the place you played the game impact your expirience?

2. Would your experience have shifted if you only played the game in class?

Worse – not good. Quiet, easy environment,

3. Would the experience have been different if we used a board game and not a video game?

worse – [method] video game (+) = no setup/ take down time. logistics.

ReSTATE:
Say more about using a game to learn about art?

"PC" – engage activly intended

[Video game context] vs. board game.

• online HW – avaeilbility,
• community help → not for this, but in (Math, Khan academy) online in office hours,

s

Single or multi for community - Asychranist. (logistical problems)

- servers -

- Restate.
- active engagement - "Classical art
  Forced to engage. "Lecture"

"Buggy" valuable exercise →

tell people, see enough —
distinguish

"Art Ap." hard to do that →
not already interested.

- change interest, level — sane know more —
  maybe could ignite something.

- Feels different, out of my wheel house.
  - smash Bro's - software games.

not a lot of strategy games.
- speed, disabity - physcal restrictions.

for Arte Trisevim - Edutainment → Educational →
hard question — learned, more, as an educational tool →
never seen | i learned from.

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